Dictionary Use and Dictionary Teaching

LEXICOGRAPHICA

Series Maior

——

Dictionary Use and Dictionary Teaching

—

New Challenges in a Multilingual, Digital and Global World

Edited by
Annette Klosa-Kückelhaus and Martina Nied Curcio

DE GRUYTER

Preface

Foreign language learners often use online information to solve language problems, but find it difficult to use dictionaries successfully. However, in today's digital, global and multilingual world, competence in using dictionaries and online lexicographic resources is an essential communicative strategy. This volume discusses how to promote appropriate dictionary skills and considers how modern lexical resources should be designed to support learners. It includes empirical studies on the use of online dictionaries, glossaries, translation tools, etc. in language teaching, studies on the background to teaching, and ideas on how to improve dictionary teaching in the classroom.

These topics were discussed in 2021 at the conference "New Challenges in Dictionary Teaching", funded by the EMLex study program (European Master in Lexicography), at the Università degli Studi Roma Tre, Italy. In 2023 the symposium "Dictionaries and their use in foreign language classes. New challenges in a multilingual, digital, and global world" was held at the 20th AILA World Congress ("Diversity and social cohesion in a globalized world: moving towards more engaged language studies") hosted by the Université de Lyon, France. The papers in this volume were written by some of the speakers at these events; we are grateful to all the authors for agreeing to include them here.

We are grateful to de Gruyter Publishing House for their willingness to publish this book as part of the "Lexicographica. Series Maior". More importantly, we would like to thank the series editors Rufus Hjalmar Gouws, Ulrich Heid, Thomas Herbst, Anja Lobenstein-Reichmann, Oskar Reichmann, Stefan J. Schierholz, and Wolfgang Schweickard for including this title in the series. We are especially grateful to The Department of Foreign Languages, Literature and Culture at the Università degli Studi Roma Tre, Italy and the Erasmus Mundus Programme "European Master of Lexicography" for funding the open access publication and for giving us the opportunity to use this volume in the European Master programme of Lexicography (EMLex) and to make it available to our (and other) students.

On behalf of all the authors, we hope that the contributions in this volume will stimulate the development of research and practice in dictionary use and new methods of dictionary teaching in classrooms around the world.

<div align="right">

Annette Klosa-Kückelhaus and Martine Nied Curcio
Mannheim and Rome 2024

</div>

Contents

Annette Klosa-Kückelhaus and Martina Nied Curcio

Introduction

Lexicography as a cultural practice ("kulturelle Praxis", Wiegand et al. 2010: 3, 103) demonstrates the important pedagogical-cultural role of lexicography. Although dictionaries have changed in terms of structure, appearance, and medium – especially due to digitalization and Artificial Intelligence – their importance to society, as well as to the individual, has not diminished at all. Dictionaries, encyclopedias and other reference works, printed or online, constitute a central and fundamental tool not only for translating and learning a foreign language; consulting them is part of the basic strategies for obtaining new information and accessing the world of knowledge – although it is easy to think that automatic translators, instant voice translators or chat bots may replace online dictionaries. It is important to emphasize that the reliability and findability of lexicographical data constitute a quality criterion, which is essential for dictionaries, but in turn decisive for successful use by users as social agents in the society. Dictionaries compiled by experienced and professional lexicographers are a valuable tool for the acquisition of new knowledge within the scientific and technical learning processes in the first language, as well as in foreign language and technical language. At the same time, it is of immense importance to also know resources with lower quality, to use them, to compare them with professional tools, precisely in order to recognize their weaknesses and limits.

Merten (2011: 357), regarding the search for information and dictionary use, speaks of a lifelong relationship between learner user and dictionary ("lebenslange Lerner-Wörterbuch-Beziehung"). Indeed, he argues that searching for information in dictionaries and encyclopedias is an elementary working technique that is necessary throughout life in order to acquire information (lifelong learning). An adequate use not only of dictionaries, but of all type of research tools, is one of the important skills for all school subjects and also outside school. Daily practicing with these tools is a prerequisite for the development of conscious and adequate user behavior. Therefore, as early as elementary school, students should be made aware of the use of the dictionary for their own text reception and text production and to check these texts with lexicographic resources. The use of reference works enables students to handle their own processed texts independently and in their own responsibility. If students learn the use of dictionaries systematically and realize when and why to use them, they become convinced of the usefulness of the lexicographic resources and are motivated to continue using them

Annette Klosa-Kückelhaus, Leibniz Institut für Deutsche Sprache, R5, 6–13, 68161 Mannheim, Deutschland, e-mail: klosa@ids-mannheim.de

Martina Nied Curcio, Università degli Studi Roma Tre, Dipartimento di Lingue Letterature e Culture Straniere, Via Ostiense, 236, 00146 Roma, Italia, e-mail: martina.nied@uniroma3.it

(ibid.: 357). Although Merten is referring primarily to native language teaching, these statements can be applied also to foreign language learning and translation.

Since the 1990s, and especially following the publication of the "Common European Framework of Reference for Languages" (Council of Europe 2001), appropriate use of dictionaries in foreign language teaching has again become important. The Council of Europe with its language policy assigns dictionaries – and reference works in general – a fundamental role: searching for information, activating prior knowledge, using auxiliary resources, using problem-solving strategies, checking and correcting, are just some of the important communicative strategies in a context, where the dictionary can be used as a reference work. In the "Companion Volume" (Council of Europe 2020), dictionaries and lexicographic resources are mentioned as important aids for all linguistic activities, in reception (reading comprehension), written production and written interaction, and also mediation. The following three examples are intended to demonstrate this.

– *Reading comprehension (Reading for information and argument)* (B2): "Can understand specialised articles outside their field, provided they can use a dictionary occasionally to confirm their interpretation of terminology." (Council of Europe 2020: 57)
– *Text production (Written interaction)* (A1): "Can compose messages and online postings as a series of very short sentences about hobbies and likes/dislikes, using simple words and formulaic expressions, with reference to a dictionary." (Council of Europe 2020: 83)
– *Mediation (Mediating a text)* (B1): "Can interpret and present in writing (in Language B) the overall trends shown in simple diagrams (e.g. graphs, bar charts) (with text in Language A), explaining the important points in more detail, given the help of a dictionary or other reference materials." (Council of Europe 2020: 97)

In the day-to-day reality of foreign language teaching, it seems that the use of a dictionary, whether monolingual or bilingual, is not something that is taken into consideration (cf. Nied Curcio 2015; for a successful strategy to promote dictionary culture and strategies in language teaching in Greece cf. Gavriilidou/Konstandinidou 2021 and 2022). It is often up to the will of the individual teacher whether and how much to make use of it in class, assuming it is allowed. It is also often taken for granted that students have learned to use a dictionary in their native language classes and then apply this skill quite naturally to the use of the bilingual dictionary. With regard to online dictionaries, it is assumed that they can handle them as digital natives. As a result, the students are left alone in the decision of whether or not to use a (lexicographic) resource. No conscious reflection is reached on whether to use it, or which, when and how. At the same time, students expect teachers to present various learning resources, explain their use and, above all, they expect teachers to recommend "good" dictionaries that will support them in their learning process. However, it often happens, that foreign language teachers do not really seem to be familiar with the current dictionary landscape

and partly insist on the use of a single (monolingual) print dictionary in class. This misunderstanding in the perception of dictionary use has lasted for a long time (and often still does), usually causing no explicit dictionary teaching in this regard to take place. In today's times, analysis of the resources used and subsequent discussion and reflection – not only on online dictionaries – but also on language resources in general, machine translation, and other tools of Artificial Intelligence – should play a key role in foreign language learning. Dictionary teaching – or rather teaching, analyzing, comparing and reflecting on online lexicographic resources and other linguistic tools – should therefore be integrated into foreign language teaching.

In empirical research, the role of online dictionaries, their actual effectiveness and appropriate use in classroom have been studied. More empirical research in the field of research into dictionary use must be carried out with learners and teachers in focus, incorporating newer linguistic and lexicographic resources, machine translation tools and Artificial Intelligence tools, even if this is a major challenge due to their rapid and constant modification, but it serves not only to learn more about the actual use of these tools by the learners, but also to improve the quality of future lexicographic tools and to make them a successful tool for (foreign) language learners.

Against this background, we organized two symposia: In 2021, we hosted a conference "New Challenges in Dictionary Teaching", funded by the EMLex study program (European Master in Lexicography), at Università degli Studi Roma Tre, Italy. In 2023, we continued this work in the context of a symposium "Dictionaries and their use in foreign language classes. New challenges in a multi-lingual, digital, and global world" at the 20th AILA world congress ("Diversity and social cohesion in a globalized world: moving towards more engaged language studies") hosted by the Université de Lyon, France. In our calls for papers we invited talks regarding the following aspects:
– How can adequate dictionary usage competence be promoted as part of media competence among teachers and learners?
– What will dictionary didactics look like in the future? How can the use of (online) dictionaries and other lexical online resources be integrated into teaching? How should educational guidelines, curricula, and teaching materials reflect these changes?
– What educational policies should be taken?
– How should modern lexical resources and dictionaries be designed to support learners?
– How can research into dictionary use contribute to further developing dictionary didactics?

The papers in this volume are authored by some of the presenters at these events; we are grateful to all authors willing to include them here. They comprise (I) empirical studies on the use of online dictionaries, glossaries, translation tools, etc. in language teaching, (II) studies on the background for teaching, e.g. by looking into the curricula, and (III) ideas on how to improve dictionary teaching in the classroom.

In the first paper, **Ida Dringó-Horváth** and **Katalin P. Márkus** ("Using dictionaries in teaching (and learning) English as a foreign language – the beginning of a longitudinal research project") present their idea to set up a long-time research project among university graduates in English as a foreign language and German as a foreign language. In the online questionnaire used in this longitudinal study, they focus on attitudes, use, educational background influence, and integration into teaching practices regarding dictionary use. Compared to the first round of this study in 2015, the results from 2023 "suggest minor changes in usage categories without significant shifts in dictionary-using habits, highlighting a move towards digital autonomy and decreased pedagogical emphasis on dictionary skills". The authors discuss how these results can be used to improve practical lexicography on the one hand and language learning and teaching methodologies on the other. It will be very interesting to compare the current findings with the results from the next studies that are planned in 2026, 2029, and 2032.

While the Hungarian students that participated in the studies presented by Dringó-Horváth/P. Márkus come from a predominantly monolingual background, the situation as described by **Michele F. van der Merwe** in her paper "Glossary use of multilingual student teachers in South Africa" is very different: The student teachers here all "speak more than one language and are trained in more than one language". This is the reason why a specific trilingual glossary containing linguistic and didactic terminology in Afrikaans, English and isiXhosa has been developed. The study presented here investigates the use of this glossary by undergraduate teacher students; more specifically, a project team integrated the glossary in their teaching to improve the students' use of terminology in coursework. A pre-test and post-test were also carried out: "The findings reveal a substantial improvement in results from a post-test in comparison to marks obtained in a pre-test.", proving that lexicographic tools developed for specific purposes can successfully improve language abilities.

Carolina Flinz and **Laura Pinnavaia** ("English and German thesauri for language production: examining the use-friendliness of two electronic thesauri") examine the user-friendliness of two online thesauri for language production, namely *Thesaurus.com* for English and *openthesaurus.com* for German. Their study fills in a gap in user studies which have not yet been carried out concerning online thesauri. Participants came from an English class and a German class of second-year graduate students in Italy and had to find suitable synonyms for words in two press texts. The results "provided the evidence that, firstly, users have problems in accessing and retrieving the correct information from thesauri and, secondly, that there are aspects that lexicographers need addressing for thesauri to become better linguistic tools". One key finding of their study is that existing thesauri can be used by native speakers successfully, but for leaners "a much more dedicated tool is needed".

While online thesauri seem not to be used very much by language learners, online machine translation tools (OMT) have been "predominantly used", as **Magdalena Zehetgruber** and **Johannes Schnitzer** point out ("Die Verwendung automatischer Übersetzungsprogramme im Wirtschaftssprachunterricht romanischer Sprachen").

They conducted a survey and a performance test regarding "the use of OMT in French, Italian and Spanish by students of International Management" to find out "which programmes students find particularly helpful, how they judge their quality, how precisely they employ them, and which results they can achieve". The main reasons for mistakes that participants made when translating texts are either flaws in the tools or that they were used inappropriately. The authors point out that therefore the use of OMT tools in foreign language teaching needs to be addressed in class.

The findings from an online questionnaire presented by **Anja Smith** ("(Re)defining the role for the dictionary: towards a concept for a phraseopragmatic GFL [German as a foreign language] dictionary for French learners") illustrate that learners may have different notions of how an ideal learners' dictionary should look like than lexicographers. Participants in this study (French teachers and language students) pointed to their needs "to acquire a better understanding of how and in which contexts to use words". Thus, the author suggests that "since understanding difficulties are primarily imputed to insufficient textual information, the dictionary's major role consists in providing this information" and presents some ideas on "basic features of a future GFL phraseopragmatic dictionary".

The second part of this volume contains papers that look into the setting for language teaching as given by, for example, the CEFR (Council of Europe 2001, 2020) or national curricula. These are relevant for language teachers at schools, universities, and other institutions who not only need to know about what these say regarding the use of dictionaries in class, but need also to be trained in how to teach the use of reference tools to their students.

Yukio Tono and **Naho Kawamoto** ("Developing and calibrating "can do" descriptors for dictionary use by EFL learners using the Rasch model") present ideas on how to improve the CEFR information on dictionary use. In their study, a total of 223 university students (mainly non-English majors with language levels between A1 and B2) "were asked to indicate how well they could perform the task described in each descriptor of dictionary use [e.g. "I can predict the base form of a problem word."] using a 5-point Likert scale". The aim is "to develop and calibrate a comprehensive set of "can do" descriptors tailored specifically for users of English as a foreign language, with a paramount focus on optimizing the utilization of various types of dictionary information". The results should be useful when developing dictionary skills in the future.

The paper "The use of (online) dictionaries at the interface of curricular requirements and practice" by **Andrea Abel** presents the results of a study of the South Tyrolean framework guidelines provided by the German and the Italian school boards at all levels of education for German and Italian as first and second languages, as well as for English as a foreign language in this multilingual region of Italy. These findings are contrasted with the results of an online survey with 644 language teachers regarding the actual use of lexicographic resources in class. While lexicographical resources (both printed and digital) "form a substantial part of the framework guidelines in South Tyrol", these are not consistently reflected in school practice ("20% of teachers do not work with diction-

ary resources"). The author also points out that there is a "clear discrepancy [. . .] regarding the normative expectations for the use of digital media and their implementation".

In her paper "The use of lexicographic online resources by foreign language teachers and the effectiveness of teacher training courses", **Martina Nied Curcio** develops a workshop and experiment designed for Italian teachers of German as a foreign language. Her hypotheses are that teachers primarily still use paper dictionaries, do not allow the use of online resources in class, know only a few online dictionaries themselves, assume that students have the ability to use online dictionaries successfully, are uncertain about the use of these sources themselves and thus do not know how to teach dictionary use. Her findings show that there "is a vital need for teaching how to use modern lexicographic resources" and that "foreign language courses could be an excellent place in which to do this". Evidently, much can be gained when language teachers are trained dictionary users.

Valeria Zotti ("Have electronic corpora made dictionaries obsolete? Some encouraging results from an international teaching experience (in the field of French artistic vocabulary)") also develops ideas on how to promote dictionary use in classes. In her experiment, she contrasts results that participants achieved when decoding "French texts of varying degrees of specialization" and when translation a sample of French texts into Italian or English either by using dictionaries and/or by exploring corpus data. One of her findings is that after "consulting the corpora, the students became even more aware of the fact that lexicographers have in fact selected relevant data to describe these words, presenting a structured synopsis that [. . .] is easy to consult" and "that their original preference for 'free online data, without proof or reliability' was no longer valid". These results should clearly encourage more teaching of dictionary use in classes.

While Valeria Zotti develops ideas on improved language teaching using not only dictionaries, but also corpus data, **Shigeru Yamada** ("'Super' instructions in the use of EFL dictionaries") focuses on the role of the language teacher to help students with understanding and using dictionary content. He presents many examples of information (e.g. definition, grammar, pronunciation) in dictionaries of English as a foreign language that need further instruction by teachers in class. These instructions are "intended to maximize the value of the dictionaries, remedying or overcoming the infelicities" and are "given by the EFL teacher who shares the same background with the student". Ideally, though, a native speaker should support non-native language teachers. The author's ideas cannot only help to improve language teaching, but are also useful to lexicographers who want to further improve their learners' dictionaries.

In the last paper in this volume by **Thomai Dalpanagioti** ("Integrating frame semantic resources in EFL instruction with a focus on deliberate metaphor"), the author suggests to use frame semantic resources such as FrameNet and MetaNet in EFL teaching, more specifically in improving metaphorical competence. She presents data from experiments in a university EFL classroom showing that "frame-aided instruction can enhance learners' metaphorical competence as this is reflected in L2 written data and

learners' own perceptions". One possibility is that teachers used these sources "implic-itely [. . .] to inform their instructional practices and decisions without asking learn-ers to act as reasearchers". The author also encourages further research that "could explore ways of making them [FrameNet and MetaNet] more accessible and attractive to both teachers and learners".

We hope that all papers in this volume will demonstrate the necessity and poten-tial of training in the use of language resources such as dictionaries, translation tools, corpora, etc. in teacher study programmes and their reflection in curricula and course book development. Lexicographers should also look into ways of further promoting the use of lexicographic resources in class rooms.

Bibliography

Council of Europe (2001): *Common European framework of reference for languages: learning, teaching, assessment*. Cambridge: Cambridge University Press.

Council of Europe (2020): *Common European framework of reference for languages: learning, teaching, assessment. Companion volume with new descriptors*. Strasbourg: Council of Europe [https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4; last access: 15.04.2024].

Gavriilidou, Zoe/Konstantinidou, Evi (2021): The design of an explicit and integrated intervention program for pupils aged 10–12 with the aim to promote dictionary culture and strategies. In: Gavriilidou, Zoe/Mitis, Lydia/Kiosses, Sypros (eds.): *Lexicography for inclusion: proceedings of the 19th EURALEX international congress, 7–9 September 2021, Alexandroupolis*, vol. 2. Alexandroupolis: Democritus University of Thrace, 735–745.

Gavriilidou, Zoe/Konstantinidou, Evi (2022): The effect of an explicit and integrated dictionary awareness intervention program on dictionary use strategies. In: Klosa-Kückelhaus, Annette/Engelberg, Stefan/Möhrs, Christine/Storjohann, Petra (eds.): *Dictionaries and society. Proceedings of the XX EURALEX international congress.* Mannheim: IDS Verlag, 471–479.

Merten, Stephan (2011): Arbeit mit Wörterbüchern. In: Pohl, Inge/Ulrich, Winfried (eds.): *Wortschatzarbeit*. Baltmansweiler: Schneider Verlag Hohengehren, 348–360.

Nied Curcio, Martina (2015): Wörterbuchbenutzung und Wortschatzerwerb. Werden im Zeitalter des Smartphones überhaupt noch Vokabeln gelernt? In: *Info DaF* 5, 445–468.

Wiegand, Herbert Ernst/Beißwenger, Michael/Gouws, Rufus H./Kammerer, Matthias/Mann, Michael/Storrer, Angelika/Wolski, Werner (2010) (eds.): *Wörterbuch zur Lexikographie und Wörterbuchforschung. Dictionary of lexicography and dictionary research*, vol. 1 (A–C). Berlin/Boston: De Gruyter.

Ida Dringó-Horváth and Katalin P. Márkus

Using dictionaries in teaching (and learning) English as a Foreign Language – the beginning of a longitudinal research project

Abstract: This study investigates dictionary use trends among university graduates in English as a Foreign Language (EFL) and German as a Foreign Language (GFL) from 2015 (N=197) to 2023 (N=110), focusing on attitudes, use, educational background influence, and integration into teaching practices. Utilizing a comprehensive online questionnaire, the research identifies a shift from print to digital resources with a marked increase in the use of machine translation software, stable online dictionary use, a decline in formal dictionary skill education, and a rise in self-taught dictionary skills. Results suggest minor changes in usage categories without significant shifts in dictionary use habits, highlighting a move towards autonomy and decreased pedagogical emphasis on dictionary skills. The study provides insights into evolving dictionary use patterns, suggesting implications for practical lexicography, language learning, and teaching methodologies. Further data collection is planned in 2026, 2029 and 2032. The paper will include preliminary findings and suggestions for the next data collection cycles.

Keywords: dictionary use, dictionary skills, dictionary didactics, longitudinal research

1 Introduction

The research presented aims to explore the dictionary use habits of graduates and changes in these habits and therefore the present paper reports on the preparatory phase of a longitudinal study, in which we plan to measure shifts and trends every three years. In 2020, the first questionnaire survey was carried out with a group of students who graduated from Károli Gáspár University of the Reformed Church in Hungary between 2015 and 2020. This first stage was of key importance because, in 2020, the lexicography course was thoroughly redesigned at the university to adapt the topics in the syllabus to specific needs. The second survey was carried out in 2023 with students who graduated from the aforementioned university between 2021 and 2023. The second research was motivated by the enormous pace of technological

Ida Dringó-Horváth, Károli Gáspár University of the Reformed Church in Hungary, Faculty of Humanities and Social Sciences, H-1088 Budapest, Reviczky str. 4. I/102, e-mail: dringo.horvath.ida@kre.hu
Katalin P. Márkus, Károli Gáspár University of the Reformed Church in Hungary, Faculty of Humanities and Social Sciences, H-1146 Budapest, Dózsa György str. 25–27, e-mail: p.markus.kata@kre.hu

development (e.g., AI, machine translation), which had a huge impact on lexicography. In the present study, we report on the surveys conducted in 2020 and 2023 (see previous results, e.g., P. Márkus/Fajt/Dringó-Horváth 2023). The first section analyses Hungarian educational documents in light of their emphasis on using dictionaries in state education. This is followed by a detailed description of our quantitative research, which aims to investigate the preferences and attitudes concerning dictionary use, dictionary consultation behaviour, and the role of dictionaries as an aid to language learning. Our future plan is to launch a longitudinal study based on the experience gained. The longitudinal nature will allow us to track changes in the role of dictionaries in language learning and, in turn, this will enable us to adapt lexicographic training to changing needs.

2 Background to the research

The use of dictionaries is of paramount importance in foreign language learning as dictionaries are a tool that helps language learners understand unfamiliar words, expressions and thus sentences and texts. A dictionary is therefore not only a list of words and expressions but also a valuable tool in the hands of language learners, which can contribute to the autonomous and lifelong development of foreign language skills (cf. Kosem et al. 2018; Levy/Steel 2015; Lew 2016). Generally, there is a huge gap between classroom learning and autonomous learning. Teachers are not available continuously, so students need to find reliable information on their own when they feel that their knowledge is inadequate for a particular task. The role of dictionaries in language learning is undoubtedly important because these reference sources accompany foreign language learners throughout the entire process of their language learning (cf. Margalitadze/Meladze 2023; Nied Curcio 2022). One explanation for this may be that dictionaries are a primary source for autonomous learning since they can answer most language-related questions. However, dictionary user surveys conducted from the 1960s onwards (see, e.g., Barnhart 1962; Atkins/Varantola 1997; Dringó-Horváth 2017; Gaál 2016; P. Márkus/Fajt/Dringó-Horváth 2023) have revealed that many users do not possess the reference skills required to find information in a dictionary entry. There may be two possible ways to remedy the situation. First, lexicographers are striving to develop methods that match the linguistic knowledge of ordinary users and make dictionaries more user-friendly; second, users should also be trained to be more skilful in using dictionaries (cf. Atkins/Varantola 1997; Nied Curcio 2022; P. Márkus/Fajt/Dringó-Horváth 2023). In response to the results of surveys, dictionaries are increasingly trying to adapt to the needs of the user. At the same time, educational institutions need to recognise the importance of this challenge to remedy the situation. In Hungary, more attention to teaching dictionary skills would be needed in educational documents to redress the problem. To depict the broader local context, the most significant

educational documents (i.e. *National Core Curriculum*; *Framework Curricula*; *syllabuses*) are to be analysed in light of their emphasis on using dictionaries in state education. The National Core Curriculum (hereafter NCC) is a key document regulating the activities of the education system, in which the educational content, skills and abilities to be acquired and educational objectives to be developed are set out for each learning area. This document is centrally developed, approved, and promulgated to ensure that it is maintained, and the guidelines are followed consistently by all Hungarian educational institutions. Even though the NCC covers all grades and learning areas, only objectives, principles, and development tasks are included – it is not intended to guide day-to-day pedagogical practice; its function is to define a shared educational basis and to provide continuity between schools and the unity of public education, rather than to directly manage the day-to-day work of teachers (Báthory 2000). Based on the NCC, the framework curriculum can be seen as an intermediate regulator between the local curricula and the NCC. The Framework Curricula (2020) for each pedagogical stage and type of school define the knowledge content to be acquired and the outcome requirements for each learning stage. They are designed to provide a practical guide for the day-to-day implementation as well as to assist local planning. In addition, school textbooks include course syllabuses based on the outcome requirements. The syllabus defines the logical sequence in which the subject is to be taught (Polyecskó 2016). In the next section, the following educational documents are examined: *National Core Curriculum*, *Framework Curricula*, and *Syllabus Proposals* so as to show how they relate to dictionary didactics and the raising of dictionary awareness. All these findings will help us to identify areas for future development in the field of dictionary didactics.

3 National Core Curriculum (NCC)

The importance of dictionaries in language learning is highlighted in the current NCC 2020 – under the subsection "Foreign languages" (II.3.2) – when detailed objectives are set in two different areas. First, the crucial role of the dictionary in the development of writing skills rightly emerges: "by the end of the educational experience, the language learner uses a print or digital tool, a dictionary, to produce texts"; second, when discussing learning outcomes in detail, the dictionary emerges as a resource that greatly supports text comprehension and as a tool for autonomous learning: "by the end of the educational experience, each learner should have achieved the ability to translate a text at their level using a dictionary". Overall, the document also states that the aim of learning a foreign language is to enable learners to be able to use a dictionary independently (the concept of the dictionary is not discussed in more detail in the document).

The NCC 2020 is not intended to describe language learning methodology; therefore, teachers are not given detailed, useful guidance on how to teach dictionary use. Although the document recognises the need to know how to use print and (on-

or offline) digital dictionaries,[1] it is the responsibility of language teachers to equip students with this knowledge. This is likely to be a significant problem in the future because in Hungary only a few Hungarian universities offer courses in lexicography (Tóth/P. Márkus/Pődör 2022). Without a sound knowledge of the structure of dictionaries, and of the theory and practice of lexicography, teachers can only rely on their own experience and intuition, which is not sufficient to teach the skills of dictionary use (cf. Campoy-Cubillo 2015; P. Márkus 2019). As a result, this will undermine the ability of students to learn autonomously, constantly update themselves and adapt quickly to new situations.

3.1 Framework Curricula

The Framework Curricula (2020), which are based on the NCC 2020, are the next documents to be examined from the perspective of dictionary use. The use of picture dictionaries is recommended for 1st–4th graders, as well as the drawing of "picture dictionaries" in group activities (e.g., drawing a room with the names of the furniture). For the 5th–8th graders, the objectives described by the NCC are repeated: "The language learner uses print and/or digital aid and dictionaries to produce texts" – no further recommendations are provided. For secondary school students, the document stresses the importance of familiarising students with target language pronunciation dictionaries, editing foreign language dictionary entries, and finally discussing in class whether to use a digital or print dictionary in the learning process. Apart from these suggestions and guidelines, there is no information on how to integrate dictionaries into educational activities. It has to be concluded, therefore, that Framework Curricula do not provide more precise and useful guidance than the NCC for the development of dictionary skills. In light of this, language teachers can draw only on their own experience and practice to address this topic in their lessons.

3.2 Syllabuses

With all this in mind, it is also worth examining the proposed syllabuses of the most widely used foreign language learning textbooks. The syllabuses, provided by the publishers on their websites for teachers, refer to tasks and activities to be carried out with the dictionary only through short keywords, without any specific methodological guidance (e.g., Unit 7 *Travelling*: reading comprehension: collecting information, using dictionaries; in

---

1 In this paper we refer – according to Nesi (2009) – to the term digital or electronic dictionary as a dictionary whose data exist in digital form and can be accessed through different media (such as computer software, mobile applications, web applications).

general, all the documents are characterised by a lack of more concrete ideas and tasks). In Hungary, the Institute for Research and Development in Education develops and publishes textbooks, the well-known *Secrets* series is one of their widely used publications. The authors aim to make foreign language learning as enjoyable and playful as possible for foreign language learners, while at the same time providing them with usable skills and knowledge. Volume 2 of the *Secrets* series encourages the use of dictionaries when the Study Skills section of the syllabus highlights the importance of dictionary use: "Study Skills: independent dictionary use"; so does Volume 3: "Study Skills: cooperative learning; dictionary use"; "Reading Comprehension: gathering information, finding meaning differences, dictionary use"; "Speaking Skills: global reading comprehension, summarising information, dictionary use, independent vocabulary building". In contrast to volumes 2 and 3 of the language textbooks, volumes 1 and 4 do not incorporate dictionary use in their syllabus proposals. The syllabus of the *Project* series (Project Fourth Edition) by Oxford University Press does not mention the practice of dictionary use in its syllabuses, only volume 5 (Project Fourth Edition 5) refers to it briefly: "Effective independent learning: dictionary use". Since volume 5 focuses on foreign language learners who have already reached level B1 of the Common European Framework of Reference for Languages, this may be the level at which the authors believe that dictionary use can be started. The syllabus of the *New English File* series (Oxford University Press) does not mention dictionary use in the Elementary volume, however, the Pre-Intermediate volume includes dictionary use tasks in the vocabulary and pronunciation section: "Vocabulary/word learning – dictionary use"; "Pronunciation in dictionaries"; the Upper-Intermediate also considers the use of dictionaries in vocabulary development: "Dictionary use – vocabulary: internal and external character traits: health – illness". The Elementary volume of *Solutions* (published by Oxford University Press) recommends the use of dictionaries within skills development (competencies): "Effective autonomous learning: dictionary use"; *Solutions* Pre-Intermediate, Intermediate and Upper-Intermediate volumes do not include any dictionary use activities, however, the Advanced level textbook highlights the importance of dictionary use under the effective learning methods: "Mastering effective learning strategies (dictionary use)"; "Independent learning – dictionary use, self-correction". Finally, the syllabuses for the MM Publications language textbooks (*Get to the Top*; *Pioneer*; *Traveller*) do not cover the topic of dictionary use and the development of skills necessary to use dictionaries effectively.

In summary, we can conclude that the gradual introduction of dictionary use is not included in the proposed syllabuses of these textbooks, which may be a source of future problems or difficulties because, without dictionaries at the beginning of the learning process, the skills necessary for independent learning cannot be adequately developed in later stages. The key to learning how to use a dictionary successfully is to use age-appropriate dictionary types systematically and regularly. At the first stage of language learning, pupils can start with picture dictionaries or childrens' dictionaries, which are simple in structure and easy to use, adapted to age-related needs and after that, they can move on to other dictionary types (e.g., learner's or bilingual dictionaries).

From the preceding analysis, we can conclude that the practice of using dictionaries, or reference works in a broader sense, has not yet been given a consistently emphasized role in public education (cf. P. Márkus 2019). Effective use of dictionaries and the acquisition of such skills are intended to enable students to use other reference works with confidence and success to expand their knowledge and navigate the world once they leave state education. To accomplish this, appropriate methods should be developed that can be seamlessly integrated into the learning process. Before we can design workable methodologies for the future, an assessment of the current situation is necessary to identify the special needs and see exactly which areas need to be improved before designing feasible approaches for the future. A more distant goal is to design a core reference skill (dictionary training) module, which could be incorporated into different courses at Károli Gáspár University of the Reformed Church in Hungary (e.g., Study Skills, Language Practice, Patterns of English). In the following section, the results of two questionnaire surveys are presented, which will serve as the basis for a longitudinal study on this topic in the future.

4 Research into dictionary use and dictionary didactics

4.1 Aims, methods and participants

In the dynamic field of lexicography, understanding the usage patterns of dictionaries among language learners is crucial for both academic research and pedagogical practice. The following section describes two research projects aiming to explore various facets of dictionary use among university graduates in English as a Foreign Language (EFL) and German as a Foreign Language (GFL). These projects, which ran between 2020 and 2023, offer a chance to examine changes and continuities in dictionary use over time. The research pivots around three core questions:

–   RQ1: What trends can be identified in the dictionary use habits of EFL and GFL university graduates?
–   RQ2: How far can dictionary use be identified in graduates' previous education?
–   RQ3: How do graduates (with language teaching experience) integrate the teaching of dictionary skills and the use of dictionaries into their practice?

A methodologically rigorous strategy was used to answer these problems, requiring the creation of a self-constructed questionnaire with 21 background questions and 69 statements that formed 10 scales. The five-point Likert scale used to record responses made it possible to quantify the attitudes and behaviours of participants in relation to using dictionaries.[2] In addition to the quantitative technique, an additional test was

---

[2] For more details on the questionnaire see P. Márkus/Fajt/Dringó-Horváth (2023).

undertaken in 2023 to further improve and broaden our comprehension of dictionary use patterns. The significance of our research is underscored by the insights of other dictionary-use studies (cf. Nesi 2015; Nied Curcio 2022), which highlight the dual role of dictionary use researchers as educators. The findings from such research have direct implications for classroom practice, informing and enhancing the teaching of dictionary skills. The findings of the two research projects show that the values for the 10 scales are remarkably consistent. The results of the second research supported the first ones, indicating that some dictionary use patterns are persistent. Despite this general stability, there were minor changes in some dictionary use categories, according to the 2023 results. These subtle shifts suggest changing patterns in dictionary use among EFL and GFL graduates, even if they are not statistically significant or suggestive of a large reorganization of behaviours. The present study will go into more detail about the specifics of these findings in the sections that follow. The authors will look at the consequences of the modest adjustments that they saw in 2023 and offer some possible explanations for the general stability in dictionary use patterns. The study hopes to gain more insight into dictionary use and dictionary didactics, with a focus on the triad of dictionary use, language learning and teaching methods.

Both research samples (2020 and 2023) included graduates enrolled in a foreign language (EFL and/or GFL) course at a Hungarian university. Table 1 displays the participants' personal characteristics.

Table 1: Personal characteristics of participants (2020 and 2023).

	2020 (n=197)	2023 (n=110)
age	21–63 (the average age of the respondents was 34 and the standard deviation was 11)	20–58 (the average age of the respondents was 31 and the standard deviation was 11)
gender	85% Female; 15% Male	84% Female; 16% Male
teaching experience	149 graduates reported that they had at least one year of foreign language teaching experience (with an average of 12 years, SD=9)	64 graduates reported that they had at least one year of foreign language teaching experience (with an average of 9 years, SD=9)

The high average age, as well as the high number of university graduates with teaching experience, can be attributed to the fact that many respondents were postgraduates (mostly teachers who returned to university for re-training). Based on the Training and Output Requirements for the courses, their language proficiency was C1 according to the CEFR (the Common European Framework of Reference for Languages). All foreign language teacher trainees at the university are trained in both language pedagogy and lexicography (with the same content and structure regardless of which language they are going to teach in the future) – in accordance with Hungary's Training and Output

Requirements. Based on the data provided, the samples are homogeneous in terms of gender distribution (chi2=0,147, df=1, sig.=0,701) but show heterogeneity in terms of age (Mann-Whitney U=7585,0, z=−4,364, p<0,001) and teaching experience (Mann-Whitney U=8213,5, z=−3,572, p<0,001). The 2023 sample is younger and has less teaching experience on average, which could have implications for the research findings, particularly if the years of teaching experience are related to dictionary use habits and the integration of dictionary skills into teaching practice, which may be a limitation of this research and must be covered in the future.

4.2 The research tools

In both projects, we employed the same questionnaire[3] to facilitate direct comparability of the findings. The questionnaire is described in detail in P. Márkus/Fajt/Dringó-Horváth (2023) and can also be downloaded. To summarise briefly, the questionnaire was developed based on existing literature and prior empirical studies on dictionary use within the Hungarian context, including seminal works by scholars such as Márkus and Szöllősy (2006), Gaál (2016), Dringó-Horváth (2017) and was also rooted in international research methodologies, particularly those from the Leibniz Institute for the German Language in Mannheim (see Müller-Spitzer/Koplenig/Töpel 2011, 2012; Müller-Spitzer/Koplenig 2014). The questionnaire features 21 background questions and 69 statements divided into 10 scales that explore dictionary use habits, and pedagogical attitudes towards the teaching of dictionary skills. Of the 21 background questions, some produced nominal variables (including dichotomous variables with yes/no response options), which were analysed using percentage distributions; others were five-point Likert scale questions – as were the 69 questions in the 10 scales, from which the variables were created as quasi-interval scales. To highlight the results, this study presents the questionnaire items in an abbreviated form, listing only the most important results at each point.

4.3 Data collection and analysis

The data collection processes took place between May and July 2020 and 2023;[4] in 2023 Microsoft Forms was utilized as a data collection tool. Access details were distributed centrally via the university's academic database. The data was then coded, with all reversed entries coded in an inverted manner. Reversed items are items which are to be recoded so that all the items within a scale have the same directional relationship, i.e., they are all "positive" (affirmative) items. This was utilized to validate the ques-

---

3 For more details on the questionnaire see P. Márkus/Fajt/Dringó-Horváth (2023).
4 For a description of the first data collection process in 2020, see P. Márkus/Fajt/Dringó-Horváth (2023).

tionnaire, and certain "positive" items were rephrased in a "negative" way, ensuring that respondents paid attention when filling out the questionnaire. In addition, this was also used to ensure that after data collection and the recoding process, respondents' answers were consistent. For nominal scales proportions, for quasi-interval scales mean scores (M) and standard deviations (SD) were computed. Proportions were compared between the two cohorts using the chi-square test and means were compared using the Mann-Whitney test. In correlation tests for quasi-interval scales, Spearman's rank correlation coefficient was used. The data were then examined in SPSS 27.0. All the data obtained during the research were stored and used in accordance with the GDPR regulations, and no third parties other than the members of the research project were allowed access to them.

5 Results and discussion

5.1 Reliability of the questionnaire

The research included both single-item and multi-item scales. Single-item scales are employed when a researcher wants to measure a concrete construct, such as the frequency of use of a special type of dictionary. A construct may be considered concrete if it is unambiguous to all respondents. In contrast, more complex constructs (e.g., attitudes towards teaching dictionary use), were measured through multi-item scales. Multi-item scales are groups of closely related items that measure the same construct. As opposed to single-item scales, which are more vulnerable to measurement errors unless they are concrete as indicated above in the case of some of our scales, multi-item scales are less likely to be vulnerable to such errors when measuring less concrete scales (e.g., attitudes towards teaching dictionary use). When it comes to multi-scale items, however, it is important to check the internal consistency of such scales, which may be achieved by calculating the Cronbach's alpha coefficient for each multi-item scale (Dörnyei/Taguchi 2010). The research established the reliability of most scales used in the questionnaire with Cronbach's alpha coefficients surpassing the recommended threshold of 0.60, as advised by Dörnyei and Taguchi (2010). However, it was acknowledged that scales USAGE2 and TEACHING1 did not meet this reliability criterion in the first phase of the research (cf. Table 2). Despite this, they were retained for their perceived relevance in capturing the nuances of participants' dictionary use habits and their attitudes towards the teaching of dictionary skills. This decision, albeit pragmatic, is recognized as a limitation within the 2020 study and is addressed in the concluding section of the analysis. As the researchers proceed with the analysis of the 2023 data, this factor will be taken into consideration when interpreting the results and drawing comparisons with the earlier study.[5]

---

5 For further details on this, see P. Márkus/Fajt/Dringó-Horváth (2023).

Table 2: The Cronbach's alpha coefficients of the scales.

Scale		Number of items	Cronbach's alpha 2020	Cronbach's alpha 2023
USAGE1	Use of unique features relating to digital dictionaries	6	0,647	0,692
USAGE2	Use of search methods relating to digital dictionaries	5	0,590	0,607
USAGE3	Willingness to pay	4	0,643	0,628
USAGE4	Conscious use of the prefatory material in dictionaries	4	0,862	0,800
ATTITUDE1	Attitudes towards teaching dictionary use	4	0,741	0,634
ATTITUDE2	Presence or absence of dictionary use knowledge and skills	7	0,843	0,867
TEACHING1	Practising various ways of using dictionaries in their lessons	5	0,554	0,606
TEACHING2	Practising conscious use of dictionaries during lessons	7	0,709	0,785
TEACHING3	Teaching dictionary use in lessons	7	0,833	0,871
TEACHING4	Bolstering the teaching of dictionary use in participants' own teaching practice	4	0,706	0,615

5.2 Results of the research

5.2.1 Background questions: Dictionaries owned and used by participants

In addition to the 10 scales, respondents were first asked a set of background questions, including personal data, the types of dictionaries owned by respondents and the frequency of use of each type. In relation to these last two questions, the answers as shown in Table 3 were found.

Table 3: Types of dictionaries owned by respondents.

Questionnaire item	% 2020	% 2023	chi2	df	p
print dictionary	95%	88%	5,577	1	0,018*
offline dictionary application on some smart device	53%	47%	0,860	1	0,354
offline digital dictionary on their computer	27%	21%	1,362	1	0,243
purchased machine translation software	9%	31%	23,782	1	<0,001*
online dictionary subscription	9%	9%	0,019	1	0,891

*significant change at alpha = 0.05.

While the vast majority of participants reported owning a print dictionary in both years, there is a noticeable decrease from 95% in 2020 to 88% in 2023, indicating a progressive shift away from traditional print media. It is important to keep in mind that just because participants have a print dictionary, it does not necessarily mean they use it (see Table 4), and what they actually use does not always correspond to what they would prefer to use (cf. Kosem et al. 2018). This finding is consistent with the broader digital change in information consumption (cf. Baron 2021). Parallel to the decrease in reliance on print dictionaries, the adoption of machine translation software has increased significantly, from 9% in 2020 to 31% in 2023. This suggests that respondents have a rising preference for automated translation options. The possession of all the other types of dictionaries has shown no significant change. Interestingly, the proportion of participants with online dictionary subscriptions also remains unchanged, which reflects a consistent but low willingness to pay for such services. This corroborates findings from other studies suggesting that generally, there is a reluctance to invest money into dictionaries, including online resources (cf. Gaál 2016; Lew 2016; Nied Curcio 2022; Tóth/P. Márkus/Pődör 2022).

Data on the use of different dictionary types presented in Table 4 show that, while print dictionaries are widely owned by respondents, their actual frequency of usage has decreased significantly from 2,68 to 2,31. This points to a continued shift towards digital alternatives. The use of offline dictionary applications on smart devices and offline digital dictionaries on desktops has decreased slightly. This may indicate a preference for online tools, but only in the light of future research data will we be able to identify this type of shift more accurately.

Table 4: Use of different dictionary types.

Questionnaire item	Mean 2020	SD	Mean 2023	SD	Mann-Whitney p
online dictionaries	4,63	0,78	4,57	0,93	0,876
search engines (e.g., Google)	3,82	1,20	3,93	1,15	0,511
print dictionaries	2,68	1,35	2,31	1,19	0,024*
machine translation software (e.g., DeepL Translate)	2,53	1,53	3,42	1,41	<0,001*
offline dictionary application on some smart device	2,44	1,50	2,29	1,47	0,394
offline digital dictionary on their computer	1,76	1,25	1,85	1,34	0,510

*significant change at alpha = 0.05

According to the data, online dictionaries and search engines remain the most popular tools, which is in line with the results of previous research (cf. Gaál 2016; Lew 2015; Müller-Spitzer/Koplenig/Töpel 2012; Nied Curcio 2015; P. Márkus/Fajt/Dringó-Horváth 2023; Reder 2016; Töpel 2015). The greatest substantial rise is evident in the use of machine translation software such as DeepL Translate, where the mean score has increased from 2.53 to 3.42.

This is presumably due to the fact that Artificial intelligence (AI) applications have had a major influence on the translation tool industry, particularly with the advent of neural machine translation (NMT) in 2016 (Stahlberg 2020). NMT has completely changed the translation industry by managing translation with a single neural network. This has resulted in shorter processing times, far better translation accuracy and smoothness, and the capacity to handle a large variety of languages and dialects (Stahlberg 2020). The release of Chat GPT in 2022 has expedited this trend. These AI-driven systems perform a range of functions, including automatic translation of text and speech, context understanding, and even cultural nuance adaptation, presenting themselves through user-friendly interfaces in web platforms, mobile applications, and professional translation software. All this has made quality translation more accessible and cost-effective, significantly expanding the user base for AI translation software (such as Google Translate, DeepL Translate, Microsoft Translator, Amazon Translate, etc.), attracting both casual users and professionals (cf. Ruoqi/Yuan/Gochuico 2023).

5.2.2 Significant deviations in the scales of usage, attitudes, and teaching

The deviations in the 10 scale areas are examined in the sections that follow, with an emphasis primarily on the major, significant deviations (see Table 5; significant deviations are marked with an asterisk).

Table 5: Overview table of the ten scales used in the study.

Scale	Mean2020	SD	Mean2023	SD	p
USAGE1: Use of unique features relating to digital dictionaries	2,17	0,71	2,25	0,80	0,412
USAGE2: Use of search methods relating to digital dictionaries	2,19	0,73	2,22	0,77	0,832
USAGE3: Willingness to pay	3,15	0,92	3,08	0,95	0,490
USAGE4: Conscious use of the prefatory material in dictionaries	2,60	1,13	2,38	1,03	0,125
ATTITUDE1: Attitudes towards teaching dictionary use	4,39	0,65	4,24	0,72	0,091
ATTITUDE2: Presence or absence of dictionary use knowledge and skills	3,07	1,01	2,69	1,11	0,002*
TEACHING1: Practising various ways of using dictionaries in their lessons	2,90	0,81	2,63	0,86	0,015*
TEACHING2: Practising conscious use of dictionaries during lessons	3,37	0,74	3,27	0,95	0,760

Table 5 (continued)

Scale	Mean2020	SD	Mean2023	SD	p
TEACHING3: Teaching dictionary use in lessons	2,92	0,90	2,61	1,01	0,021*
TEACHING4: Bolstering the teaching of dictionary use in participants' own teaching practice	3,39	0,93	3,71	0,92	0,013*

*significant change at alpha = 0.05

5.2.2.1 Usage

In the period between the two sampling dates, the scales for dictionary use do not show significant differences, therefore, the assumptions made earlier remain valid (see, P. Márkus/Fajt/Dringó-Horváth 2023), and only two areas of particular interest are briefly discussed in this section. The participants' willingness to utilise unique features relating to digital dictionaries (see Usage1) remained relatively stable in the midrange or below in both samples, indicating that these additional functionalities are generally unknown or underutilized. A similar lack of knowledge among users has been reported in other studies (cf. Dringó-Horváth 2017; Gaál 2016; Nied Curcio 2015). Prior research projects have shown that while digital dictionaries offer unique features like multimedia content, users prioritize reliability, updated content, and ease of navigation over these enhancements when selecting a digital dictionary (cf. Gaál 2016; Kosem et al. 2018; Lew 2015; Müller-Spitzer/Koplenig 2014). It is worth mentioning that the appropriate use of the services provided by digital dictionaries can bring not only convenience (e.g., speed, accessibility) but also didactic added value to the user and that knowledge of unique features can greatly contribute to the right choice of dictionary (see, e.g., Dringó-Horváth 2012; 2021). The results in both samples suggest a modest engagement with the guides and aids (Usage4) provided in dictionaries: the most frequently consulted resource is the list of abbreviations, and the least engaged feature was reading the introduction and preface, but overall, the medium-range frequency for consulting these resources indicates that there is a tendency not to use or to only superficially use guides and aids included within dictionaries – which is in line with other previous surveys and observations on this field and may hinder effective dictionary use (cf. Nied Curcio 2022; Svensén 2009).

5.2.2.2 Attitudes

The findings related to the scale Attitude1 reveal in both years a discrepancy between the perceived importance of formal education in dictionary skills and the reality of how individuals learn to use dictionaries. A high proportion of participants report that they think it is important to teach dictionary use in the foreign language classroom, however, it seems to be mostly acquired in a self-taught way. This suggests that while the value of dictionary skills is acknowledged, the formal education system may not be the primary

source of acquiring these competencies (see P. Márkus 2019; 2020). Interestingly, except for one statement about covering additional functions of digital dictionaries in class, we see a slight decrease in the sample averages for all other six statements related to previous experience with dictionary didactics (Attitude2), including practising the alphabetical order, discussing different types of dictionaries, exploring different search methods, learning about the general structure and code system of dictionaries, and practising critical interpretation and selection of information in dictionaries. Unfortunately, this reflects an overall decline in the presence of dictionary didactics in language classes, suggesting that these skills and knowledge have since then been given an even more marginal role. The slightly increased (from 2.28 in 2020 to 2.45 in 2023) emphasis on digital dictionary features in the sample averages could, however, reflect a broader pedagogical transition towards integrating digital tools in language education. This trend has been demonstrated by a number of studies on language teaching.[6]

5.2.2.3 Teaching

Participants with teaching experience (N=149 in 2020; N=64 in 2023) were also asked about how they integrate dictionary use and the teaching of dictionary skills into their practice. The related teaching scales show the most change: all three of the focal areas have shown substantial changes, with the exception of the scale Teaching2. Examining the individual statements of the Teaching1 scale (Practicing different ways of using dictionaries in their lessons) in detail reveals that there is a noticeable decline in the use of offline, downloadable digital dictionaries in the classroom, both on computers/laptops and as mobile applications, while the use of digital tools (such as machine translation tools) either stagnates or increases very little in our sample. As the results of the scale of previous learning experiences presented earlier (see Attitude2), the scale Teaching3 also shows an overall downward trend in response averages, with a slight positive shift only in the teaching of digital dictionary functions (from 1.67 in 2020 to 1.89 in 2023). Out of all the 10 scales, only one, Teaching4, demonstrated a significant shift with a positive skewness in the given sample. The means of the responses to each of the four scale items changed slightly in the direction towards boosting drive. This indicates that although participants are still motivated to teach dictionary use, they now feel that they would require more support in this area, both in the form of appropriate teaching aids and related training as well as the inclusion of dictionary didactics in educational documents (e.g., course plans and curriculum) (cf. Gaál 2016; Nied Curcio 2022; Tóth/P. Márkus/Pődör 2022). No wonder, because language learning with digital dictionaries – despite many similarities – is characterized by significant differences from learning with print dictionaries. Teachers and learners alike need more practical help to find their way around the modern dictionary landscape, as modern dictionaries

---

6 E.g., see the trends in coursebook publishing: Dringó-Horváth/Menyhei (2021).

are becoming increasingly complex and versatile (type, format, functions, etc.). Furthermore, media-specific components of dictionaries require a different didactic method that should be explained and practised beforehand (see, e.g., Dringó-Horváth 2021; Margalitadze/Meladze 2023; Nied Curcio 2022; P. Márkus 2020; Tóth/P. Márkus/Pődör 2021).[7]

5.3 Correlation results

In conducting the correlational analyses, we focused on the correlations with the source of dictionary skills acquisition, based on the following criteria:

5.3.1 The source of dictionary skills acquisition and dictionary use habits

Data suggest that in 2020, the most positive effects on the use of specific features of digital dictionaries are dictionary skills acquired during higher education (rho=0.196, p=0.006) and special training courses (rho=0.147, p=0.039). In contrast, in 2023, dictionary use acquired in primary education (rho=0.190, p=0.047) and secondary education (rho=0.200, p=0.037) were the determining factors in this respect. This may be explained by the larger sample size of the first survey (2015–2020), while the second sample only included three years of graduates (2021–2023). Furthermore, it is possible that the slightly younger age group in the second survey already reflects the fact that from 2012 onwards (NCC 2012), foreign language learning has been compulsory in primary schools in Hungary from grade four and can also be studied in special language courses from grade two, of which many children take advantage. However, for both samples, it is apparent that the autodidactic acquisition of dictionary skills has a negative effect (rho=−0.194, p=0.042) on the use of specific features of digital dictionaries. This confirms the paramount importance of learning to use dictionaries in a formal learning context: if we want to keep up with the development of dictionaries and provide ourselves and our learners with truly fresh and applicable knowledge, the formal learning path can make a better contribution.

Considering how the source of dictionary skills acquisition influences the use of digital dictionary search methods, we can conclude that the use of non-autodidactic methods is a positive factor; in the 2020 sample, dictionary skills acquired during higher education (rho=0.281, p<0.001) have a significant positive effect, while in the 2023 sample, secondary education (rho=0.188, p=0.049) and acquisition from family members (rho=0.204, p=0.033) were the main determinants.

---

7 On the new features and evaluation criteria of digital dictionaries, as well as useful tips and practical exercises, see Kemmer (2010); Dringó-Horváth (2012; 2021).

With regard to willingness to pay for dictionaries, a correlation with the sources of dictionary skills acquisition is only found in the first survey. Thus, while in 2020 there is a significant positive effect of dictionary skills acquired during primary education (rho=0.143, p=0.045) and in special training courses (rho=0.143, p=0.045); in 2023, no significant effect is found. Hence, this relationship needs to be further investigated in the future in order to clarify it.

It may be important to investigate which factors could support greater use of additional information related to correct dictionary use (e.g., usage guide), as both surveys found that the use of this type of information was very limited. However, none of the research data collected suggests that the source of acquisition is a decisive factor in the conscious use of supplementary information.

5.3.2 The source of dictionary skills acquisition and attitude

Our research suggests that institutional learning has a positive effect on the possession of dictionary knowledge and skills (Attitude2) that are needed to use dictionaries effectively: in 2020, dictionary skills acquired during higher education (rho=0.522, p<0.001) and secondary education (rho=0.272, p<0.001) show a significant positive effect, while the effect of self-taught learning is significant and negative (rho=−0.304, p<0.001). In 2023, dictionary skills acquired from relatives (rho=0.255, p=0.007), in primary education (rho=0.209, p=0.028) and secondary education (rho=0.320, p=0.001) also show a significant positive effect on this domain.

5.3.3 The source of dictionary skills acquisition and the teaching of dictionary use

In 2020, no correlation was found between the different ways of practising dictionary use in class (Teaching1: Practising various ways of using dictionaries in their lessons) and the sources of dictionary skills acquisition, while in 2023, dictionary skills acquired in secondary school education (rho=0.321, p=0.010) were significantly positively influenced. In 2020, primary school education (rho=0.219, p=0.007) has a significant positive effect on the teaching of dictionary use in the classroom (Teaching2: Teaching dictionary use in lessons); the effect of autodidactic acquisition is significant and negative (rho=−0.202, p=0.014). In addition, in 2020, primary school education (rho=0,201, p=0,014) has a significant positive effect on the practice of conscious use of dictionaries in the classroom (Teaching3: Practising conscious use of dictionaries during lessons); and in 2023, there is no significant influencing factor. In 2020, there is a significant positive effect (rho=0.231, p=0.005) of dictionary skills acquired during specific training to support the teaching of dictionary use (Teaching3: Bolstering the teaching of dictionary use in participants' own teaching practice); in 2023, there is no significant influencing factor. The 2020 result implies that language teachers often complement their lack of

knowledge in dictionary didactics with additional workshops (cf. Nied Curcio 2022; P. Márkus 2020; Tóth/P. Márkus/Pődör 2022). However, as the result was only shown in one year, it is worth monitoring this further.

6 Summary

Analysing data of the quantitative research (2020 and 2023) regarding trends in dictionary use and dictionary didactics, several key patterns emerge:
– Shift from print to digital: There is a clear move from print dictionaries to digital resources, with a marked increase in the use of machine translation software. This trend demonstrates a growing preference for digital convenience over traditional resources.
– Stable use of digital dictionaries: The use of digital dictionaries remained relatively stable, with only a slight decrease in frequency. This suggests that digital dictionaries continue to be a staple tool for users despite the rise of alternative digital resources, such as search engines.
– Decline in dictionary skills education: Classroom discussions on dictionary use, including the types of dictionaries and search methods, have significantly decreased. This suggests a reduced emphasis on teaching dictionary skills within formal education.
– Self-taught dictionary skills: There is an increased reliance on self-taught methods for learning how to use dictionaries. This indicates a potential gap in formal educational settings where dictionary skills may not be adequately addressed.
– Marginal use of unique dictionary features: Users minimally engage with the unique features of digital dictionaries, such as multimedia elements and additional content. This could point to a lack of awareness or need for these features among users.
– Reduced need for didactic resources: Educators reported a reduced need for teaching aids and professional development in dictionary use. This could reflect an increased familiarity with digital resources that require less formal instruction or a change in educational priorities.

Overall, the trends from 2020 to 2023 indicate a shift towards digital autonomy in dictionary use, with a notable decline in formal pedagogical focus on dictionary skills. This shift could reflect broader changes in language education, resource availability, and the evolving landscape of digital tools.

As for the correlation result the research highlights the importance of formal education in the acquisition of dictionary skills, suggesting a positive impact of several different institutional forms of education on important areas such as the increased use of digital dictionary functions and search methods. In addition, the willingness to pay for

dictionaries and the possession of dictionary knowledge and skills are also increased by a structured teaching of dictionary use. From the point of view of respondents who have teaching experience, it can be concluded that institutional teaching of dictionary skills promotes versatile and conscious practice of dictionary use in the classroom. In contrast, autodidactic learning negatively affects these outcomes, highlighting the importance of structured learning environments. The results argue in favour of formal education as a key to keeping up with dictionary skills development and acquiring applicable knowledge.

The questionnaire was supplemented with a test focusing on effective dictionary use, in which the respondents' dictionary skills were tested. The analysis of the test results will allow us to refine the quantitative survey on several points. The findings will be published in a forthcoming paper.

Limitations and further study

The current study has several limitations. To begin with, a quantitative research design comprising a self-report questionnaire survey served as the foundation for this investigation. Conclusions drawn from the mix of quantitative and qualitative methods may be more reliable. A further limitation of this study stems from the fact that the reliability coefficient of some of the scales fell slightly below the minimum threshold in 2020, however, in 2023, they reached the minimum threshold. In light of these results, scales could be further refined for later research. In addition, the number of respondents with at least one year of educational experience in 2020 was 149, compared to only 64 in 2023. As this number is much lower than in the first survey, significant shifts in the teaching population ought to be treated with reservation and need to be checked in the future; therefore, we plan to launch a longitudinal study based on the experience gained. The longitudinal nature will allow us to track changes in the role of dictionaries in language learning and, in turn, this will enable us to adapt lexicographic training to changing needs.

7 Bibliography

Atkins, Beryl T. Sue/Varantola, Krista (1997): Monitoring dictionary use. In: *International Journal of Lexicography* 10:1, 1–45 [https://doi.org/10.1093/ijl/10.1.1].

Barnhart, Clarence (1962): Problems in editing commercial monolingual dictionaries. In: Householder, Fred D./Saporta, Sol (eds.): *Problems in lexicography*. Bloomington: Indiana Research Centre for Language and Semiotic Studies, 161–181.

Baron, Naomi S. (2021): *How we read now: strategic choices for print, screen, and audio*. Oxford: Oxford University Press.

Báthory, Zoltán (2000): *Tanulók, iskolák – különbségek* [Students, schools – differences]. Budapest: OKKER.

Campoy-Cubillo, Mari Carmen (2015): Assessing dictionary skills. In: *Lexicography ASIALEX 2*, 119–141 [https://doi.org/10.1007/s40607-015-0019-2].

Dörnyei, Zoltán/Taguchi, Tatsuya (2010): *Questionnaires in second language research: construction, administration, and processing*. London: Routledge [https://doi.org/10.4324/9780203864739].

Dringó-Horváth, Ida (2012): Lernstrategien im Umgang mit digitalen Wörterbüchern. In: *Fremdsprache Deutsch* 46 (Themenheft Lernstrategien), 34–40.

Dringó-Horváth, Ida (2017): Digitális szótárak – szótárdidaktika és szótárhasználati szokások [Digital dictionaries – dictionary didactics and dictionary use habits]. In: *Alkalmazott Nyelvtudomány* 17:5, 1–27.

Dringó-Horváth, Ida (2021): Digitale Wörterbücher – Auswahlkriterien und angepasste Wörterbuchdidaktik. In: *Fremdsprache Deutsch* 64 (Themenheft Wortschatz). Praxis Online [https://fremdsprachedeutschdigital.de/download/fd/FD_64_online_Dringo-Horvath.pdf; last access: 02.05.2024].

Dringó-Horváth, Ida/Menyhei, Zsófia (2021): Changes in coursebook publishing: Exploring the digital components of foreign language coursebook packages. In: *Teaching English with technology* 21:2, 18–41.

Framework Curricula (2020) = Kerettantervek (2020) [https://www.oktatas.hu/kozneveles/kerettantervek/2020_nat; last access: 22.02.2024].

Gaál, Péter (2016): *Online szótárak és használóik* [Online dictionaries and their users]. Pécs: University of Pécs.

Kemmer, Katharina (2010): Online Wörterbücher in der Wörterbuchkritik. Ein Evaluationsraster mit 39 Beurteilungskriterien. In: *Online publizierte Arbeiten zur Linguistik* 2, 1–33.

Kosem, Iztok/Lew, Robert/Müller-Spitzer, Carolin/Ribeiro Silveira, Maria/Wolfer, Sascha (2018): The image of the monolingual dictionary across Europe. Results of the European survey of dictionary use and culture. In: *International Journal of Lexicography* 32:1, 92–114.

Levy, Mike/Steel, Caroline (2015): Language learner perspectives on the functionality and use of electronic language dictionaries. In: *ReCALL* 27:2, 177–196 [https://doi.org/10.1017/S095834401400038X].

Lew, Robert (2015): Research into the use of online dictionaries. In: *International Journal of Lexicography* 28:2, 232–253.

Lew, Robert (2016): Dictionaries for learners of English. In: *Language Teaching* 49:2, 291–294 [https://doi.org/10.1017/S026144481500049X].

Margalitadze, Tinatin/Meladze, George (2023): How to solve problems in dictionary use: the Georgian case. In: *Lexikos* 33:2, 63–78 [https://doi.org/10.5788/33-2-1840].

Márkus, Katalin/Szöllősy, Éva (2006): Angolul tanuló középiskolásaink szótárhasználati szokásairól [The dictionary use habits of Hungarian secondary school students learning English as a foreign language]. In: Magay, Tamás (ed.): *Szótárak és használóik* [Dictionaries and their users]. Budapest: Akadémiai Kiadó, 95–116.

Müller-Spitzer, Carolin/Koplenig, Alexander (2014): Online dictionaries: expectations and demands. In: Müller-Spitzer, Carolin (ed.): *Using Online dictionaries*. Berlin/Boston: De Gruyter, 143–188 [https://doi.org/10.1515/9783110341287.143].

Müller-Spitzer, Carolin/Koplenig, Alexander/Töpel, Antje (2011): What makes a good online dictionary? – Empirical insights from an interdisciplinary research project. In: Kosem, Iztok/Kosem, Karmen (eds.): *Electronic lexicography in the 21st Century: New applications for new users*: *Proceedings of eLex2011*, *Bled, Slovenia*, *10–12 November 2011*. Ljubljana: Trojina, Institute for Applied Slovene Studies, 203–208.

Müller-Spitzer, Carolin/Koplenig, Alexander/Töpel, Antje (2012): Online dictionary use: key findings from an empirical research project. In: Granger, Sylviane/Paquot, Magali (eds.): *Electronic lexicography*. Oxford: Oxford University Press, 425–457.

NCC 2012 = *National core curriculum* (2012) = Nemzeti alaptanterv (2012) [https://ofi.hu/sites/default/files/attachments/mk_nat_20121.pdf; last access: 22.02.2024].

NCC 2020 = *National core curriculum* (2020) = Nemzeti alaptanterv (2020) [https://magyarkozlony.hu/dokumentumok/3288b6548a740b9c8daf918a399a0bed1985db0f/megtekintes; last access: 22.02.2024].

Nesi, Hilary (2009): Dictionaries in electronic form. In: Cowie, Anthony Paul (ed.): *The Oxford history of English lexicography*, Oxford: Oxford University Press, 458–478.

Nesi, Hilary (2015): Thirty years of user studies – and what we still need to find out. In: Li, Lan/McKeown, Jamie/Liu, Liming (eds.): *Words*, *dictionaries and corpora: innovations in reference science*: *Proceedings of ASIALEX 2015*, Hong Kong: Hong Kong Polytechnic University, 1–8.

Nied Curcio, Martina (2015): Wörterbuchbenutzung und Wortschatzerwerb. Werden im Zeitalter des Smartphones überhaupt noch Vokabeln gelernt? In: *Info DaF* 5, 445–468 [https://doi.org/10.1515/infodaf-2015-0504].

Nied Curcio, Martina (2022): Dictionaries, foreign language learners and teachers. New challenges in the digital era. In: Klosa-Küückelhaus, Annette/Engelberg, Stefan/Möhrs, Christine/Storjohann, Petra (eds.): *Dictionaries and society: Proceedings of the XX EURALEX international congress*, Mannheim: IDS-Verlag, 71–84.

Polyecskó, Dóra (2016): *NAT – Kerettanterv – Helyi tanterv – Tanmenet* [National core curriculum – Framework curriculum – Local curriculum – Syllabus] [https://neteducatio.hu/nat-kerettanterv-helyi-tanterv-tanmenet-rugalmas-tanmenet/; last access: 22.02.2024].

P. Márkus, Katalin (2019): Szótárhasználati munkafüzetek az oktatásban [Dictionary skills workbooks in education]. In: *Modern Nyelvoktatás* 25:2, 42–62.

P. Márkus, Katalin (2020): A szótárhasználat jelene és jövője a közoktatásban – a nyelvoktatást szabályozó dokumentumok és segédanyagok tükrében [The present and future of dictionary use in public education – in the light of documents governing language teaching]. In: *Modern Nyelvoktatás* 26:1–2, 59–79.

P. Márkus, Katalin/Fajt, Balázs/Dringó-Horváth, Ida (2023): Dictionary skills in teaching English and German as a foreign language in Hungary: a questionnaire study. In: *International Journal of Lexicography* 36:2, 173–194 [https://doi.org/10.1093/ijl/ecad004].

Reder, Anna (2016): Wörterbücher und digitale Tools als Ratgeber bei der Kollokatorsuche. In: *Beiträge zur Fremdsprachenvermittlung* 58, 18–30 [http://www.vep-landau.de/fileadmin/user_upload/bzf/Hefte/bzf_2016_58.pdf].

Ruoqi, Shi/Yuan, Xiong/Gochuico, M. T. (2023): Translators and their use of ChatGPT. In: *Academia Lasalliana Journal of Education and Humanities* 5:1, 49–59 [https://doi.org/10.55902/plru9197].

Stahlberg, Felix (2020): Neural machine translation: a review. In: *Journal of Artificial Intelligence Research* 69, 343–418 [https://doi.org/10.1613/jair.1.12007].

Svensén, Bo (2009): *A handbook of lexicography. The theory and practice of dictionary-making*. Cambridge: Cambridge University Press.

Tóth, Ágoston/P. Márkus, Katalin/Pődör, Dóra (2022): Lexikográfia és szótárdidaktika az angoltanárképzésben – helyzetkép [Lexicography and the teaching of dictionary use in English teacher training programmes – an overview]. In: Eőry, Vilma/Tóth, Ágoston (eds.): *A szótár az oktatásban* [Dictionaries in public education]. Budapest: Tinta Könyvkiadó, 27–60.

Töpel, Antje (2015): Das Wörterbuch ist tot – Es lebe das Wörterbuch?! In: *Info DaF* 5, 515–534 [https://www.doi.org/10.1515/infodaf-2015-0508].

Michele F. van der Merwe

Glossary use of multilingual student teachers in South Africa

Abstract: Students and teachers are a multilingual cohort at university in South Africa, as they speak more than one language and they are trained in more than one language. Studies in user research on student teachers and their use of a glossary in a specialised setting are rare. This study investigated student teachers as a user group regarding their use of a glossary as well as the influence of their use of a glossary. Their language profile, terminology needs and reference habits are described in the study within the context of user situations. An intervention in teaching the integration of a glossary to students to improve their use of terminology in coursework was undertaken by a project team. Results of a pre-test and a post-test are described. The findings reveal a substantial improvement in results from the post-test in comparison to marks obtained in the pre-test.

Keywords: user group, glossary, student teachers, intervention

1 Introduction

As a contribution to this volume on dictionary use and dictionary teaching, this article focuses on the use of a glossary by student teachers as well as teaching glossary use to them in a faculty of education. The specific glossary used is called the MobiLex trilingual glossary and is available at https://mobilex.sun.ac.za/. MobiLex is a mobile glossary that has been compiled for undergraduate students at a university in South Africa (Van der Merwe 2016, 2017). The MobiLex glossary may be purposefully used as a resource in teaching and learning a language. It can also be used as a guideline in the teaching and learning environment as part of a teaching and learning framework to teach technical and specialized vocabulary (America/Van der Merwe 2017). Glossaries in general provide users with translations of terms only; however, the MobiLex glossary has a more hybrid character as it provides users with translations of terminology in three languages as well as definitions of terms in three languages (Van der Merwe/Horn 2018). Figure 1 shows a screenshot of the starting page of MobiLex.

Michele F. van der Merwe, Stellenbosch University, GG Cillié Building, Ryneveld Street, Stellenbosch, 7600, South Africa, e-mail: michelevdm@sun.ac.za
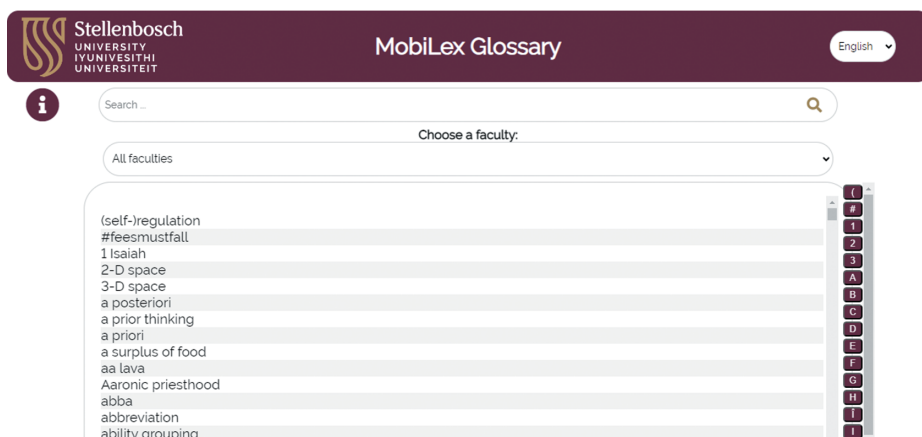
Figure 1: Starting page of MobiLex.

The access structure of the glossary provides the user with a choice between three languages as source language, namely Afrikaans, isiXhosa or English. In the example in Figure 2, English was chosen as the source language.
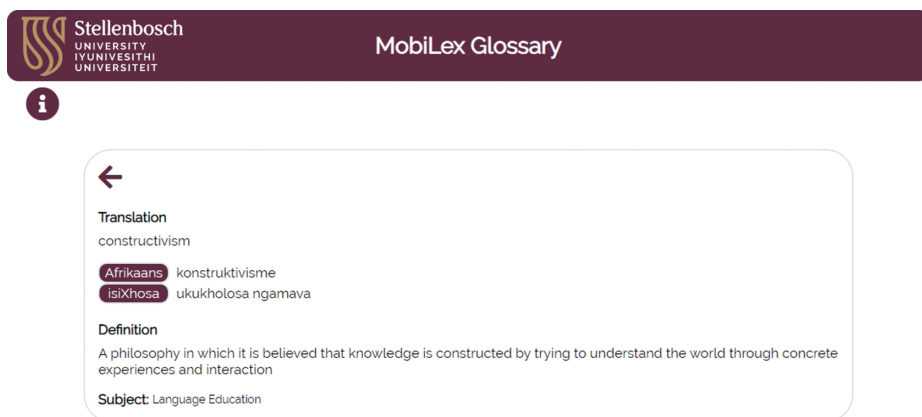
Figure 2: Microstructure of MobiLex.

Two translation equivalents are provided per lemma. Depending on the source language selected, in this case English, translation equivalents are provided in Afrikaans and isiXhosa during the search. A short, subject-specific definition on first-year level is provided in the preferred language, usually the L1 for the user (the source language). The term *constructivism*, as used in Language education, is provided as example in Figure 2.

   The user group is undergraduate student teachers in a faculty of education at a university in South Africa. These students are an interesting user group, as their course

requirements include taking three different languages on various levels for four years. Being South African students, they have different language backgrounds and speak a variety of languages with varying levels of competence, resulting in a user group that can be described as multilingual. But being part of the South African education system means that they were probably not exposed to dictionaries at school and hence did not receive any training in the use of dictionaries.

Information on the user group, namely their language profile, terminology needs and reference habits, was obtained in a pre-test survey and described in the study. Their performance was measured in a pre-test and post-test on relevant terminology in their coursework after lessons on the use of the glossary. Lexicographic user research is conducted within the context of specifically user situations. This empirical study was conducted with the aim of obtaining results on the use of a glossary by a specific user group, namely undergraduate student teachers.

The article is structured as follows: (1) an introduction to the topic of dictionary use in higher education; (2) current research on dictionary users in higher education; (3) research questions including (3.1) research methodology and design, (3.2) description of an intervention in coursework, and (3.3) description of the results of pre-test and post-test assessment; and (4) discussion and conclusion.

2 Research on dictionary users in higher education

Wiegand (1998: 680) regards the *user presupposition* to be the focal point in any lexicographical process; it implies reference to factors such as *user perspective*, *user situations* and *user needs*. Tarp (2009: 279) also concludes that, for research into dictionary usage to be relevant, it should not only generate knowledge about how dictionaries are used, but also on who the users are, where, when and why they use dictionaries and with what result. Tarp (2009: 279) finds it necessary to research the types of user situations, the types of users, the types of their needs, their usage of a dictionary and the degree to which user needs are satisfied.

Researchers like Vrbinc, Farina and Vrbinc (2022), Lew (2015), Gromann and Schnitzer (2015) and Kosem et al. (2019) studied university students or language professionals as their typical dictionary users. Three examples of research projects on user research are discussed. They have been selected based on their relevance to user research in higher education.

The first example was selected because of its relevant research on specialised resources, as the focus is on MobiLex, a specialised resource of three languages for the described user group. According to Gromann and Schnitzer (2015: 58), only a few of the many user research studies address the use of specialized resources by semi-specialised users. Most studies empirically evaluate specific learner's dictionaries or specialised translation dictionaries, and focus mostly on the English lan-

guage. According to Gromann and Schnitzer (2015: 57), knowledge about dictionary consultation behaviour in various languages is still scarce, particularly in specialised settings. In their study, the major aim was to investigate the dictionary selection strategies and dictionary use of L2 learners of five different languages at the Vienna University of Economics and Business, namely English, Spanish, Italian, French and Russian. Two aspects of dictionary use were analysed by means of an online questionnaire, a test with non-participant observation and interviews. The results included resources reported and used by L2 learners, as well as reported and observed consultation behaviour (Gromann/Schnitzer 2015: 57).

The second selected research project is that of Bae (2011) in which she reports on a study of teaching dictionary skills for language learning and proposes integrating the teaching of dictionary skills into teacher-training programmes. Her insights in the process prove valuable to teacher training, as this article is concerned with student teachers as user group of specialised resources. She designed an intensive training course for English language teachers and offered it at a teachers training institute in South Korea. Participants were 22 primary and 26 secondary school teachers of English. Their native language was Korean and they all taught English in Korean public schools. From a survey and teachers' feedback, Bae (2011) concluded that teachers were as largely uninformed about dictionary use as their students and wanted clearer guidance. Bae (2011) sees teacher training as a rare opportunity for researchers in lexicography to tap into the pedagogical insights and experiences of teachers regarding ways of teaching reference skills.

The third example refers to Heid (2011), which reports on an innovative method for usability testing. Heid (2011: 287) applies a method from information science to test user satisfaction for electronic dictionaries, namely usability testing. Notions of usability, namely effectiveness, efficiency and user satisfaction, were applied in a case study conducted with students in language-related study programmes at the University of Hildesheim (Heid, 2011: 295). The pre-test questionnaire was administered in the framework of university courses and the objective of the questionnaire was to understand which functions students would find most important in electronic dictionaries (Heid 2011: 295). Task-based tests were also conducted on work situations in text reception and text production (Heid 2011: 297).

In this article I, as a researcher in pedagogical lexicography, tap into a teacher-training programme to gain pedagogical insights into the experience of student teachers. A user group and its language profile are described. The user group's needs, perceptions of and usage of a mobile glossary are investigated by means of a pre-test and post-test questionnaire. Between the pre-test and the post-test, there is an intervention, which is described below. An account of the results of the pre-test and post-test assessments is provided.

3 Research questions

The article addresses the findings on the following two research questions:
– Research question 1: What is a dictionary usage profile of students in a faculty of
   education in a multilingual environment?
– Research question 2: What change occurred in the user group's knowledge of ter-
   minology after intervention with a multilingual glossary in participants' use of ter-
   minology in such an environment?

The first research question is answered with reference to answers in a pre-test
and post-test survey for undergraduate student teachers. The second question is
answered on the basis of data gathered on use of terminology in a pre-test before an
intervention on the use of a glossary took place and afterwards in a post-test on use
of terminology.

3.1 Research methodology and design

Punch and Oancea (2014: 299) regard the correlational survey as a major quantitative
design, with its centrepiece the survey questionnaire. The methodology for research
presented in the article includes a description of quantitative data derived from a
survey questionnaire on the usability of the glossary. The correlational survey, accord-
ing to Punch and Oancea (2014: 299), is not a simple descriptive survey, but rather a
multi-variable survey, seeking a wide range of information, and with some conceptual
framework or independent, control and dependent variables. According to Punch and
Oancea (2014: 299), factual information on background and biographical information
as well as measures of variables such as attitudes, values, opinions or beliefs form
part of a correlational survey. The survey described in the article contains questions
on factual information as well as measures of the attitudes of students on the use of
a glossary. As the survey was designed from scratch, a pilot study was undertaken in
2021 to test the survey with undergraduate student teachers, and the survey and tests
were repeated in 2022. Data from the pilot study in 2021 and research from 2022 will
be shared in the article.

A correlational survey was conducted with undergraduate student teachers by
means of a pre-test questionnaire and a post-test questionnaire on the usability of dic-
tionaries and MobiLex. The undergraduate students follow the four-year BEd degree
programme in a faculty of education. The sample size was 520 (271 in 2021 and 249
in 2022) first-year participants. The number of participants in the 2022 research was
smaller than the pilot study, as the intake of first-years in 2022 was smaller than in 2021.
The researcher does not teach a first-year class and surveys were distributed on behalf
of the researcher before the start of a lecture in the module for language education.
The researcher decided to do the surveys during this specific module, so as to reach all

the students in the first-year BEd programme, because it is a compulsory module. The survey and the pre-test were conducted in May, i.e. in the second term of the year. First-year students were still at an early stage in their course and the assumption was that they were not yet familiar with the terminology used in the course. They were also not familiar with the MobiLex glossary that was to be used in the post-test (see the Appendix in this regard).

The pre-test survey consisted of seven questions. Two questions were used to ascertain the language profile of respondents; and five questions dealt with how respondents went about looking up terminology. The post-test survey, after the intervention through a tutoring programme, consisted of two questions on the usability of the MobiLex glossary. The post-test survey and post-test were taken during the third term, in September, by the same participants.

Ethical clearance and institutional permission for conducting the research were obtained from the university. Students' participation was voluntary and their responses were captured, analysed and anonymised. The researcher drew up a data-management plan and worked according to the plan. Responses to surveys and tests are kept in a safe electronic space and access to documents was limited to two researchers only. Noteworthy results are discussed further below.

3.2 Description of an intervention and assessment on relevant terminology in coursework

An intervention to purposefully improve first-year student teachers' conceptual vocabulary and relevant terminology in coursework took place during the year. The intervention entailed a tutoring programme on the use of the MobiLex glossary in the classroom. Senior students in the BEd programme were selected as tutors and trained for the tutoring programme by a project team. They were selected on the basis of their language proficiency in different languages, as they needed to display multilingual competencies. Tutors conducted tutoring sessions for first-year students through the medium of Afrikaans, isiXhosa and English, and students had a choice of the language in which they wished to attend sessions. This ensured that most students could learn and discuss concepts in their home language. The student teachers received training during 8 tutorials of 50 minutes each. They were taught how to effectively integrate MobiLex into their learning as part of the department's language and terminology support.

MobiLex, a mobile glossary of specialized terminology aimed at undergraduate students, was compiled to support student teachers' language needs. The glossary was designed with an educational purpose in mind, namely to provide support in a multilingual environment with regards to content-specific needs as well as linguistic needs. The glossary has a hybrid character and provides students with terminology in three languages as well as definitions of terms in three languages. The three languages are

formally included in the language policy of the University of Stellenbosch, namely Afrikaans, English and isiXhosa.

A glossary, like a dictionary, could have different functions in a communicative situation. According to the theory of lexicographical functions, a lexicographical function represents the support that a specific dictionary renders in a specific user situation to a specific user to solve a specific lexicographical problem (Tarp 2008). Tarp (2008) distinguishes between communicative and cognitive dictionary functions.

Communicative functions include, for example, text comprehension, text production and translation. According to Tarp (2008), communicative functions could assist with reception of texts in the native language, the production of texts in the native language, reception of texts in a foreign language, production of texts in a foreign language, translation of texts from the native language into a foreign language, and the translation of texts from a foreign language into the native language.

Tarp (2008) describes cognitive dictionary functions as providing general cultural and encyclopaedic information, special information about the subject field or the discipline, and information about the language itself (e.g. when studying a foreign language). During the use of MobiLex, cognitive support is provided with definitions of subject concepts to assist with reading and understanding concepts in academic texts in L1. It could also assist with the use of terminology in writing tasks and preparing for assessments. Communicative support is provided with translation equivalents of terms as well as definitions in the L2 and L3.

Dictionaries are an essential resource that can be used to increase knowledge of the vocabulary that we encounter in the first or other languages (Webb/Nation 2017). Alberts (2010) states that terminology, including by implication subject-specific dictionaries and glossaries, is a strategic resource which has an important role to play in the functional development of languages and their users' language skills. As such, the MobiLex glossary may be purposefully used as a resource.

During the teaching and learning process (Van der Merwe 2024) a total of 8 themes were taught, ranging from understanding synonyms, antonyms, definitions, translations, finding and comparing examples, concepts and providing source references. MobiLex was embedded in a teaching and learning framework in a formal integration process of reference works. Topics, learning outcomes and dictionary functions were integrated in the teaching process (Van der Merwe 2024).

Pre- and post-tests were taken by students before and after the tutoring programme to establish their understanding of terminology. Students took a pre-test at the beginning of the programme without MobiLex or other reference works, to establish their grasp of terminology and concepts in their coursework. An identical post-test was done at the end of the tutoring programme and this time they could make use of MobiLex and they also knew how to use the glossary. Pre- and post-tests were marked, and results were analysed by the statistical service of the university. The ANNOVA 2-way test was performed, with variables on language and test scores.

3.3 Description of the results of pre-test and post-test survey and assessment

The language context in South Africa is significant for researchers, as South Africa has 12 official languages, namely Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, according to Article 6(1) of the Constitution (1996), and in 2023 South African Sign Language was recognized as the 12th official language (Network 24). Many speakers in South Africa can be regarded as bilingual, or even multilingual, as they speak more than one language.

In training to become a teacher in South Africa, it is important to be at least bilingual. According to policy on *The Minimum Requirements for Teacher Education Qualifications* or MRTEQ (Department of Higher Education and Training 2015), all teachers who successfully complete an initial professional qualification should be proficient in the use of at least one official South African language as a language of learning and teaching (LoLT), and be partially proficient (i.e. sufficient for the purposes of basic conversation) in at least one other official African language, or in South African Sign Language, as the language of conversational competence (LoCC). If the LoLT is English or Afrikaans, then the LoCC must be an African language or South African Sign Language. This means that students take different language modules on different language levels – for example, first language, second language and third language, but that the language of instruction in other modules in their programme is English. There are some exceptions; for example, at Stellenbosch University, where students have the option to do their first-year modules in Afrikaans and Afrikaans is then the language of instruction. As they progress in their teacher training, during their senior years English becomes the medium of instruction, with Afrikaans as an option for communication, class assignments and assessments (Van der Merwe, 2024).

Students in the BEd programme at Stellenbosch University follow three different language modules annually during the four-year programme, namely Afrikaans, English and isiXhosa. Students take the language modules on various levels, namely L1, L2 and L3, depending on their proficiency in a language. An Afrikaans-speaking student, for example, will take Afrikaans Home Language (L1) and because the student is bilingual, take English on Home Language level (L1) as well. Such a student will probably have no knowledge of isiXhosa and will follow a module on conversational isiXhosa. Another example would be an English-speaking student whose home language is English, and chooses English Home Language (L1), also chooses Afrikaans Additional Language (L2) as her/his proficiency in Afrikaans is not on L1 level, and chooses isiXhosa on conversational level (L3), as she/he has no prior knowledge of isiXhosa. First-year students' choices are influenced by the level of language proficiency based on their final school examinations, which serve as entry requirements for university level. Students matriculate in South Africa with at least two language offerings, mostly one on home language level (L1) and one on additional language level (L2).

A correlational survey was used to answer the first research question, namely to identify a dictionary usage profile of students in a faculty of education in a multilingual

environment. Two questions were asked regarding respondents' biographical information: (1) What is your home language? (2) What was the Language of Teaching and Learning at the high school/secondary school that you attended?

The BEd cohort of 2021 and 2022 was linguistically diverse (cf. Table 1). The linguistic profile shows that the BEd cohort consisted of speakers of Afrikaans, English, isiXhosa, isiZulu and Sepedi, with the first two languages mentioned being the predominant ones. An interesting phenomenon observed is that three students identified themselves as being Afrikaans and English home language speakers. This can mean that they regard themselves as either fully bilingual or that they identify so strongly with these two languages that they regard both as their home language. Speakers from isiXhosa, isiZulu and Sepedi are underrepresented in the cohort.

Table 1: Linguistic profile of home language of participants who completed the survey in 2021, 2022.

Home language	Number of speakers
Afrikaans	182
Afrikaans and English	3
English	153
Sepedi	2
isiZulu	3
isiXhosa	13

The cohort can be described as multilingual, as speakers of many languages are present in one group. Stellenbosch University, traditionally an Afrikaans university, has attracted a diverse language and cultural society of students by being more accessible to different groups of students since 1994. A multilingual student cohort also implies adapted responsibility by university structures for language support for users of language of teaching and learning on various levels, ranging from mother-tongue-speaker level to the level of learners of a second or third language. The integration of a glossary such as MobiLex can play a major role in terms of language support to the cohort of students, which was the reason for the intervention on the use of the glossary by the cohort.

Empirical data on terminology needs and reference habits was obtained from the cohort in the pre-test survey, focusing on the user consultation habits. On the topic of dictionary consultation habits of students, the following open-ended question was posed: *Where would you look up a term that you are not familiar with?*

Consultation habits of the two major language groups, namely Afrikaans and English, are presented for the 2022 cohort (249 participants). Participants did not complete all the questions in the survey and Tables 2 and 3 refer to participants who completed the questions. Sources were specified by the user groups and incorporated into the two tables.

Table 2: Dictionary consultation habits of Afrikaans participants.

Sources	Number of users
Google	32
Dictionaries	30
Internet	14
MobiLex	4
Google Translate	1
Google Dictionary	1

Of the 86 participants, 72 answered the question. Some of them gave more than one source that they would consult. The results of the survey show that the major sources of information for Afrikaans-speaking students are Google and dictionaries. Some cited well-known Afrikaans dictionaries. It is not clear from the information provided which sources were meant by "the internet" and whether that included the use of Google. It is also not clear whether Google referred to dictionary pages as well. Students did not specify. It was surprising to the researcher that MobiLex was mentioned this early in the year when the survey was taken, as students had not yet been introduced to the glossary. But it was mentioned by only 4 respondents.

Table 3: Dictionary consultation habits of English participants.

Sources	Number of users
Google	102
Dictionaries	55
Internet	2
MobiLex	2
Google Translate	2
Google Dictionary	2

Of the 185 participants, 161 answered the question. Some of them gave more than one source they would consult. The results of the survey show that the major sources of information for English-speaking students are Google and dictionaries, as also indicated by Afrikaans-speaking students. Three students indicated that it was "better" to make use of dictionaries, but if they were in a hurry, Google was their preferred option. The internet was utilised by a small minority of English-speaking students, in comparison to Afrikaans-speaking students, perhaps indicating a more sophisticated knowledge of resources. MobiLex was also mentioned, but only by 2 respondents, 2 fewer than Afrikaans-speaking students.

A follow-up question on dictionary consultation habits of students was posed in order to determine their understanding of the nature of a glossary, namely *Would you make use of a glossary to look up terminology?*

The question was answered positively by 89% of participants. The result indicates a quite surprising attitude of support for making use of a language resource, seen in the light of most respondents' preference for the use of Google.

In the post-test survey, after the intervention dealing with the use of MobiLex glossary, students were asked about the usability of MobiLex as a glossary to provide language support. Students had to indicate if they found the following aspects of the glossary useful by marking each one *Yes/No* in the survey (cf. Table 4). The number of *Yes* responses is indicated as a percentage next to the description.

Table 4: Usefulness of MobiLex lexicographic categories indicated by BEd cohort.

Explanation of subject term in Afrikaans	86%
Explanation of subject term in English	88%
Explanation of subject term in isiXhosa	78%
Translation of subject term in Afrikaans	86%
Translation of subject term in English	90%
Translation of subject term in isiXhosa	70%

It seems from the responses that MobiLex was held in high regard by respondents. There was an almost similar response to the usability of explanations of subject terms in all three languages. The usefulness of definitions not only in English, but also in Afrikaans and isiXhosa, indicates a certain demand for information on terminology in speakers' home language or a language that they are more familiar with. The demand for isiXhosa is interesting and perhaps indicates a need for information in a language not spoken by most of the cohort, but probably a language learned for communicational competence in the BEd programme.

The usefulness of translations of terms in three languages, namely Afrikaans, English and isiXhosa, follows a similar trend. The usefulness of translations not only in English, but also in Afrikaans and isiXhosa, indicates a certain demand for multilingualism and not monolingualism (where English is viewed as the main language to be used in academia). The analysis seems to indicate that the BEd cohort placed a high premium on multilingual language support.

Results from a pre-test before an intervention on the use of a glossary and a post-test on use of terminology were analysed to answer the second research question to ascertain what change occurred after an intervention dealing with a multilingual glossary related to participants' knowledge of terminology.

Test results to establish the cohort's understanding of terminology in a specific module were collected in a pre-test and a post-test. As the BEd cohort was identified

as a multilingual group, the researcher wanted to establish if their choice of language in tests played a role in their performance. Languages of teaching and learning at Stellenbosch University are Afrikaans and English, and students have a choice in which language to write their assessments. The implication for speakers from other languages (for example, isiXhosa) is that they will be writing assessments and tests in their second or third language.

The 2-way ANOVA test was performed on test results of the 2022 cohort (430 tests analysed), with variables on language and test scores. It was found that the choice of language did not make a significant difference to the outcome of results. There was an indication that students who wrote tests in Afrikaans performed better than students who wrote in English, but it was not significant.

Scores from the pre-test and post-test were calculated statistically. Students improved their scores considerably from the pre-test to the post-test, with $p < 0.01$ in a normal paired t-test. The average marks increased from 27,9 (out of 40) to 34,4 (from 70% to 86%). The results could be an indication that the intervention on the MobiLex glossary proved to be very successful and to have a positive impact on students' knowledge of concepts and terminology in their coursework. Students who wrote only the pre-test did not score as high as students who wrote both tests. Figure 3 shows the performance of students in the pre-test (before the intervention) and post-test (after the intervention). The Y-axis refer to marks out of 40 and the X-axis to test 1 (pre-test) and test 2 (post-test).
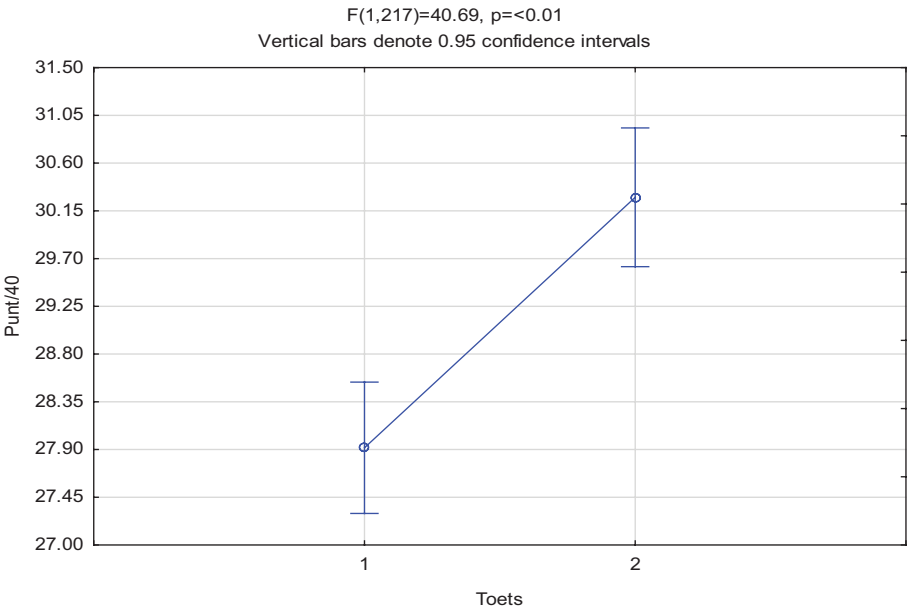

Figure 3: Performance in pre-test and post-test.

Results from individual questions in the pre-test and post-test were statistically compared to determine whether there was a significant increase in results of the post-test. There was a significant increase in 6 questions of the 21 questions from the pre-test to the post-test. In question 12 there was a significant increase from 13% in the pre-test to 21% in the post-test ($p=0.04$). In question 14 there was a significant increase from 86% in the pre-test to 97% in the post-test ($p<0.01$). There was a significant increase from 20% to 37% for question 16 in the pre-test to the post-test ($p<0.01$), as well as for question 17 from 44% to 70% (($p<0.01$). There are similar findings for question 18, where an increase from 50% to 66% ($p<0.01$) occurred and in question 21 the increase was from 85% to 93% ($p=0.02$).

From the data collected and analysed quantitatively, it was demonstrated that the scores of students in the post-test improved significantly from scores in the pre-test. The conclusion can be drawn that an intervention addressing the integration of a glossary improved participants' use of terminology as well as their conceptual knowledge of coursework.

4 Conclusion

The main data-collection tools were surveys (incorporated in tests) and tests, which were administered to 520 participants in a faculty of education. Information on the user group, namely their language profile, terminology needs and reference habits, was obtained in a survey incorporated in a pre-test. The user group consulted reference works and had a definite preference for online language resources. They knew about different lexicographic works and even named titles, although not prompted for them. This is significant, as the student teachers are the teachers of the future and they can play an important role in their classes to promote a culture of dictionary use in South Africa by actively and intentionally integrating dictionaries in their teaching.

An overwhelming majority of respondents expressed a need for the cognitive functions of the glossary for text production and text reception, but also for translations of terminology in three languages in an environment where non-home languages (for some participants) are used as languages of teaching and learning. The demand for support in Afrikaans, English and isiXhosa was divided equally between the different language groups, perhaps indicating that multilingualism is important. The demand for support in three languages is a factor that needs to be taken into account by faculty, given the indispensable role of precise language usage in teaching and learning. The important role of a glossary in learning terminology was also recognised.

This study was conducted with the aim of obtaining information on the value of an intervention entailing the integration of a glossary into students' coursework. Performance of the user group in a pre-test and post-test on relevant terminology in their coursework was analysed and results show a significant increase in participants' knowledge of terminology, as well as their knowledge of terminology in the second lan-

guage after an intervention. Key findings of the study indicate the substantial beneficial influence of a glossary in a formal teaching intervention.

Study limitations include feedback from students in qualitative format. This study used quantitative data-collection methods and data were presented quantitatively. Survey information was in quantitative format and richer data, using qualitative data-collection methods, for example with descriptive feedback, can be obtained on how students experienced tutorial sessions of the intervention. Suggestions for further research include investigating more task-orientated dictionary activities, where students can perform productive tasks, for example, making use of certain specified terminology in writing exercises in several languages.

5 Appendix

5.1 MobiLex post-test Assessment, including memorandum

Assessment on dictionary use regarding general educational terms. 10% will be deducted for spelling and grammatical mistakes. Please take note that the results of this test do not form part of any formal assessment but will be used to evaluate your understanding of general educational terms.

Question 1

Match the term supplied with a suitable description of the term.

Term	Description
A. Constructivism	School of thought that developed after World War I.
B. Literacy	The ability to read and write.
C. Inclusive	Considered together.
D. Behaviourism	School of thought that regards objective observation as the only valid subject for study.
E. Assessment	Evaluation of achievement.

(5 x 2) 10

Choose the correct synonyms for the following words.

2. takeover
   A decline
   B acquisition
   B is correct

3. second language
   A additional language
   B second additional language
   A is correct

4. antithesis
   A contrast
   B differ(ence)
   A is correct

5. stabilisation
   A fossilisation
   B fossilising
   A is correct

6. exchange
   A turnover
   B trade
   B is correct (5 x 1) 5

Question 3

Provide antonyms for the following words.

7. explicit
   A ambiguous
   B clear
   A is correct

8. anti-climax
   A high point
   B irony
   A is correct

9. self-education
   A pedagogy
   B autogogy
   A is correct

10. multilingualism
    A bilingualism
    B additional multilingualism
    A is correct

11. denotation
    A literal meaning
    B figurative meaning
    B is correct (5 x 1) 5

TRUE or FALSE. Read carefully through the following terms and definitions.

12. Alternative assessment is the teacher's alternation between different assessment formats to enhance learning. (FALSE)
13. Assimilation is the fitting of existing knowledge into new schemas. (FALSE)
14. Decolonisation is the process of undoing the effects of colonialism. (TRUE)
15. A learner centred curriculum is where the child's cultures, interests and beliefs drive the curriculum process. (TRUE)
16. Holistic, in terms of education, refers to all facets of a child's wellness. (FALSE)

(5 x 1) 5

Choose the correct term for the following definitions.

17. The process whereby learners are able to assess their own learning.
    A Assessment as learning
    B Assessment for learning
    C Assessment of learning
    A is correct

18. The process that takes place during learning and that is aimed at improving or supporting learning.
    A Assessment as learning
    B Assessment for learning
    C Assessment of learning
    B is correct

19. The assessment after learning has already taken place.
    A Assessment as learning
    B Assessment for learning
    C Assessment of learning
    C is correct

<div align="right">(2 x 3) 6</div>

Fit the theorist to the educational term or theory.

20. The theory that states that people have different types of intelligence.
    A Lev Vygotsky
    B Howard Gardner
    C BF Skinner
    B is correct

21. The Zone of Proximal Development
    A Lev Vygotsky
    B Howard Gardner
    C BF Skinner
    A is correct

<div align="right">(2 x 2) 4 **Total 40**</div>

6 Bibliography

6.1 Academic Literature

Alberts, Mariëtta (2010): National language and terminology policies – a South African perspective. In: *Lexikos* 20, 599–620 [doi: 10.5788/20-0-158].

America, Carina/Van der Merwe, Michele (2017): Die rol van 'n veeltalige selfoonwoordeboek in die ontwikkeling van konsepgeletterdheid vir onderwysstudente in die ekonomiese en bestuur-swetenskappe. *LitNet Academic* 14:1.

Bae, Susanna (2011): Teacher-training in dictionary use: voices from Korean teachers of English. In: Akasu, Kaoru/Uchida, Satoru (eds.): *Lexicography: Theoretical and Practical Perspectives. Proceedings of the Seventh ASIALEX Biennual International Conference 2011*. Kyoto: The Asian Association for Lexicography, 46–55.

Department of Higher Education and Training (2015): *The Minimum Requirements for Teacher Education Qualification (MRTEQ)* [www.gpwonline.co.za; last access: 27.03.2024].

Gromann, Dagmar/Schnitzer, Johannes (2015): Where do business students turn for help? An empirical study on dictionary use in foreign-language learning. In: *International Journal of Lexicography* 29:1, 55–99 [doi: 10.1093/ijl/ecv027].

Heid, Ulrich (2011): Electronic dictionaries as tools: Towards an assessment of usability. In: Fuerte-Olivera, Pedro A./Bergenholtz, Henning (eds.): *e-Lexicography: the internet, digital initiatives and lexicography*. London/New York: Continuum, 287–304.

Kosem, Iztok/Lew, Robert/Müller-Spitzer, Carolin (2019): The image of the monolingual dictionary across Europe. Results of the European survey of dictionary use and culture. In: *International Journal of Lexicography* 32:1, 92–114 [doi:10.1093/ijl/ecy022].

Lew, Robert (2015): Research into the use of online dictionaries. In: *International Journal of Lexicography* 28:2, 232–253 [doi:10.1093/ijl/ecv010].

Network 24. Sign language officially becomes SA's 12th official language. 19 July 2023 [https://www.news24.com; last access: 27.03.2024].

Punch, Keith F./Oance, Alis (2014): *Introduction to research methods in education*. London: Sage.

Tarp, Sven (2008): *Lexicography in the borderland between knowledge and non-knowledge: General lexicographical theory with particular focus on learner's lexicography*. Berlin/New York: De Gruyter.

Tarp, Sven (2009): Reflections on lexicographical user research. In: *Lexikos* 19, 275–296 [doi: 10.5788/19-0-440].

Van der Merwe, Michele (2017): Dictionaries a wealth of knowledge? Perceptions of multilingual education students on mobile LSP dictionaries. In: *Journal for Language Teaching/Tydskrif vir Taalonderrig* 51:2, 59–83 [doi.10.4314/jflt.v5123].

Van der Merwe, Michele (2024): Teaching and learning specialized terminology with a mobile glossary in a higher education. In: *Focus on ELT Journal* [doi.org/10.14744/felt].

Van der Merwe, Michele/Horn, Karen (2018): Mobile concepts in a mobile environment: historical terms in LSP lexicography. In: *Yesterday & Today* 19, 17–34 [doi/10.17159/2223-0386/2018/n18a2].

Vrbinc, Marjeta/Farina, Donna/Vrbinc, Alenka (2022): Who is sharpest at looking up *sharp*? Comparing two parallel groups of dictionary users. In: *Lexikos* 32:1, 368–391 [doi.org./10.5788/32-1-1750].

Webb, Stuart/Nation, Paul (2017). *How vocabulary is learned*. Oxford: Oxford University Press.

Wiegand, Herbert Ernst (1998). *Wörterbuchforschung. Untersuchungen zur Wörterbuchbenutzung, zur Theorie, Geschichte, Kritik und Automatisierung der Lexikographie*. Berlin/New York: De Gruyter.

6.2 Dictionaries

MobiLex = *MobiLex Glossary*. Ed. by Van der Merwe, Michele [https://mobilex.sun.ac.za/>; last access: April 17, 2024].

Carolina Flinz and Laura Pinnavaia

English and German thesauri for language production: Examining the user-friendliness of two electronic thesauri

Abstract: This article explores the use and challenges of online thesauri, focusing on the English and German languages. Drawing from the historical significance of Peter Mark Roget's *Thesaurus* and its impact on the development of similar resources and considering the shift towards digital mediums in language reference tools, especially for educational purposes, we aim to fill the gap in user studies concerning online thesauri. Our research delves into user experiences, identifying common issues encountered, and how they might be addressed. Specifically, we will present the findings of an analysis of two prominent online thesauri: *Thesaurus.com* for English and *Openthesaurus. de* for German. After providing some theoretical background on the characteristics of synonym dictionaries and thesauri and an outline of dictionary-user studies in foreign language learning, a detailed methodology outlining participant selection, materials used, and procedures will follow. Subsequently, we will present an overview of our findings and conclude with a discussion of implications and future directions.

Keywords: online thesauri, synonym dictionaries, user experience, EFL, GFL

> It is the range and the diversity of its vocabulary which constitute one of the
> advantages of the *Thesaurus*, enabling you to choose the most accurate,
> the most apt or the most telling term for your purpose. (Lloyd 1982: vii)

Carolina Flinz, Università degli Studi di Milano, Via Festa del Perdono 7, 20122 Milan, Italy,
e-mail: carolina.flinz@unimi.it
Laura Pinnavaia, Università degli Studi di Milano, Via Festa del Perdono 7, 20122 Milan, Italy,
e-mail: laura.pinnavaia@unimi.it

1 Introduction

A thesaurus is a reference work that "presents the vocabulary of a language, language variety or subject discipline by systematically tracing synonym networks between words within semantic domains" (Hartmann/James 2000: 142). In the history of English lexicography, Peter Mark Roget's *Thesaurus of English Words and Phrases: Classified and Arranged so as to Facilitate the Expression and Ideas and Assist in Literary Composition* represents one of the earliest and most renowned examples. Since its first publication in 1852, it has been reissued over eight times with each successive edition becoming larger and larger, clearly underscoring how synonymy is at the heart of the acquisition and the use of vocabulary and not of the English language alone. Roget's *Thesaurus* was not only central for the English language, but also for other European languages, including German that adopted its ontological system as a model (Storjohann 2012). The most important German correspondent is Dornseiff's *Wortschatz nach Sachgruppen* (1934), which is now in its 9th edition (2020).

Nowadays, resources of this kind are present also on the internet, not only as products that have been issued by well-known publishing houses, but also as products of their own, or that have been integrated into online information systems (Klosa 2016). Some of the most notable examples for the English language are *Collins English Thesaurus* (2019), *Merriam-Webster's Dictionary and Thesaurus (2020)*, and *Oxford Thesaurus of English* (2009) that have all online versions next to paper ones, as well as *Free Thesaurus, Power Thesaurus*, and *Thesaurus.com* that are only available online. For the German language, in addition to the classic printed dictionaries of synonyms issued by the publishing houses Duden and Wahrig, worthy of note are *Openthesaurus.de* inserted also in *Digitales Wörterbuch der Deutschen Sprache* (DWDS), Dornseiff's *Wortschatz nach Sachgruppen* added to *Wortschatzportal Leipzig*, and *Woxikon* (*Online Synonym-Wörterbuch*).

Starting from the assumption that dictionaries are used mostly online now (cfr. Márkus/Fajt/Dringó-Horváth 2023: 180), especially for production purposes (among others Flinz/Ballestracci 2022; Abel 2024) and that in the Italian school and university systems the use of general dictionaries, dictionaries of synonyms and thesauri is encouraged in the foreign language classroom for writing purposes (Abel 2024), the aim of this work is to begin to carry out research on online thesauri, which is an area of lexicography that as yet has received little attention. User studies in the field of foreign language learning have in fact concentrated mostly on general print and electronic monolingual and bilingual dictionaries,[1] with translation tasks being the main focus. Specific studies on thesauri and on other types of tasks are still a desideratum, so this article is a first step in this direction. More precisely, a set of different online thesauri will be examined in an empirical manner in order to investigate how students consult them,

---

[1] For the concept of dictionary type and the possible classification see Kühn 1989, Hausmann 1989, Wiegand et al. 2010.

to see what problems arise, and how these might be solved. This paper will present the results concerning two electronic thesauri, *Thesaurus.com* for the English language and *Openthesaurus.de* for the German one.

2 English and German thesauri and dictionary of synonym

The avoidance of repetition and the use of appropriate words in contexts is one of the pillars of textual cohesion, as the lexicologists Bellmann (1968) and Harras (2001) along with the lexicographers Wiegand (1976) and Viehweger (1982) have clearly pointed out. English and German language examination boards test linguistic proficiency by including reading, writing, listening, and speaking exercises that are heavily based on the ability of both native and non-native speakers to understand and use synonyms.

'Synonymy' is understood to be a "meaning relationship between units that can be mutually substituted regarding their main features" (Wiegand et al. 2020: 814). However, two expressions can only be substituted in a text if the reference does not change. Therefore, the majority of synonyms are really only partial synonyms that may have totally different connotations and frequencies of use (Wiegand et al. 2020: 814). Linguistic studies have shown how synonyms correspond to the different meanings that words can express, ranging from denotational, connotational, reflected, stylistic to collocational (Cruse 2000; Cuyckens/Taylor/Dirven 2009; EunHee 2022; Geeraerts 2010; Goddard/Wierzbicke 2014; L'Homme 2020; Maiernborn/Heusinger/Portner 2019; Murphy 2013). Moreover, because studies have also shown that "substitutability is also based on non-linguistic factors such as the speakers' differences and individual fluctuations related to their experiences and on context of reference" (Basile 2023: 41), synonymy is not just an intricate linguistic phenomenon but a cognitive one too.

The complexity that seems to characterise synonymy may explain why next to the plethora of theoretical studies that have evolved around this topic, an unending current of heterogenous lexicographic works has also ensued in the last few decades. It is noteworthy, however, that such a large quantity of lexicographic tools is not accompanied by the same amount of studies of usage. Indeed, after having presented a short overview of the characteristics of synonym dictionaries from which the English and German online thesauri have evolved,[2] we will briefly focus on dictionary-user studies in the field of English and German Foreign Language Learning for Italians, highlighting the need for further research and, more precisely, on thesauri.

---

2 In general language semasiological dictionaries synonyms and quasi-synonyms are part of the explanation of meaning and are given as an interpretation of the lemma. They will not be considered in this article.

2.1 English and German dictionary of synonyms and thesauri

While the concept of thesauri goes back to classical antiquity, the 'thesaurus' as we know it today came into common use only after the "unprecedented success of Peter Mark Roget's *Thesaurus*" in 1852 (Hüllen 2009: 29). Its appearance is the result of a long lexicological and lexicographic process that reached its height in the 18th century when mainstream lexicography began to develop in Europe. In order to establish standardized and national linguistic systems able to meet all the communicative needs that could possibly arise, the dictionaries and books that were published "established the meanings of words by other words thought to be identical in meaning" with exchangeability being the proof (Hüllen 2009: 31).

The recognition of the importance of synonyms for communication was thus the trigger for dedicated lexicographic works too. The 18th century indeed saw the dawning of the first synonym dictionaries[3] (Hahn 2004: 3), which have been placed into three categories according to the characteristics possessed: discriminating, accumulating, and partially discriminating and accumulating (Hahn 2004: 8).[4] In the dictionaries that belong to the first category syonyms are explained and described in a comparative and contrastive manner aided by examples of use. Instead, to the second category belong the dictionaries that completely exclude any kind of explanation. In these dictionaries, the entries are listed in alphabetical order and synonyms are simply juxtaposed without providing any or at the very most minimal semantic information bereft of diatopic and diastratic labelling. The aim of these works is to provide related words from which the user can choose the most appropriate match for a particular context. To the third category (see also Kühn 1985), belong the dictionaries that partly resemble the accumulating synonym dictionaries, owing to their microstructures, and partly the discriminating ones, owing to the inclusion of a modicum of explanatory information regarding the meaning, use, and style of words.

While the most recent synonym dictionaries belong to the third category, thesauri as we know them today stem from the second one, emblematised by Roget's *Thesaurus*. Storjohann (2012: 477) describes them as follows: they are dictionaries in which words and expressions with similar meanings are combined into subject groups, arranged semantically, grouped according to word types and then arranged alphabetically, without any indication of meaning. Roget's influence in England led to the compilation of a series of thesauri by the well-known publishing houses Collins, Merriam-Webster, and Oxford among others that, like their dictionaries, are now also available online.[5] In Germany, it

---

3 See also Püschel 1994.

4 See also Wiegand's "Matrix zur Typologie der Synonymenwörterbücher zur deutschen Standardsprache nach 1945" (Wiegand 1994).

5 *Collins English Thesaurus* (2019), *Merriam-Webster's Dictionary and Thesaurus (2020),* and *Oxford Thesaurus of English* (2009) all have online versions as well as paper ones.

led to the compilation of Dornseiff's *Wortschatz nach Sachgruppen* (1934),[6] and Wehrle/ Eggers's work *Deutscher Wortschatz. Ein Wegweiser Zum Treffenden Austdruck* (1961).

Nowadays, next to thesauri that are in print (and online), there is another series that are available online only. For the English language, they include *FreeThesaurus*, *Power Thesaurus*, and *Thesaurus.com*, the latter of which is the most popular. In *Thesaurus.com* for each lemma looked up, synonymic as well as antonymic matches of different strengths are provided. The lemmas are classified according to their part of speech and definiendum. By clicking on a match, the system cross-references the user to another series of matches. At the end of every page, examples of use taken from different texts are also listed. In order to understand the meanings of the lemmas, the user can click on the accompanying dictionary (*Dictionary.com*). For the German language, *Openthesaurus.de* and *Woxikon Online Synonym-Wörterbuch* are available, the former of which is the most popular. *Openthesaurus. de* is linked and integrated into the lexical information system DWDS and the information is shown as blocks under the meaning section (see Nabel 2005). Besides synonyms, users can also find some taxonomic relations: "Openthesaurus consists of a list of meanings (synsets) that can be represented by one or more words (terms)" (Meyer/Gurevych 2010: 41). Hypernymic, hyponymic, and antonymic relations are also present, but fewer than in other resources, such as *Wiktionary* or *GermaNet* (see Meyer/Gurevych 2010).

Considering the articulated and hypertextual structures that characterise them, *Thesaurus.com* and *Openthesaurus.de* seem in fact to be much more similar to the partially discriminating and accumulating dictionaries than to the accumulating ones described above. The fact that users can, at a click, access definitions and examples of use, make them much more exhaustive synonym-finding tools. Whether they are easy to use, however, still needs to be established, given little research directed at describing or testing them has been carried out.

2.2 The need for user studies of English and German thesauri

Dictionary-user studies aim to investigate how and to what extent lexicographic resources are used (Müller-Spitzer 2016: 292). They also investigate if a resource is an appropriate aid for certain users in certain situations. The aim of these studies is indeed to improve dictionaries on the basis of the knowledge gained and to make them more user-friendly tools (Müller-Spitzer 2016: 294). Since 1989, dictionary-user studies have become more and more numerous, with an important number focussing on online dictionaries,[7] within the field of foreign language teaching especially, albeit not to the same extent for all languages. While dictionary usage for language acquisition has become a very prominent area of study for English as a Foreign Language (EFL), it has not

---

6 This thesaurus is now also online because it has been added to *Wortschatzportal Leipzig.*

7 Nied Curcio (2022: 69) lists more then 250 researches in the last thirty years.

reached such prominence for German as Foreign Language (GFL). However, for Italian learners there is still much to be done for both English and German (see Nied Curcio 2022; Dominguez Vasquez/Mollica/Nied Curcio 2014; Müller-Spitzer et al. 2018b).

As far as the English language is concerned, Nuccorini stands out for her work on Italian learners' use of specialised monolingual and bilingual dictionaries (Nuccorini 1989; 2009), and especially on the difficulties involved in choosing phraseological units (Nuccorini 2013; 2017). For the German language, Nied Curcio (2022) provides a detailed overview of 200 studies in this field, differentiating between studies through questionnaires and/or interviews (Nied Curcio 2022: 74–76), studies in a concrete user situation and with a user *in actu* (Nied Curcio 2022: 77–80), studies through user experiments or user tests (2022: 81–82), electronic dictionary studies (2022: 83–86), and studies examining the effectiveness of dictionary teaching (2022: 87–89). In sum, the majority of these studies have centred on monolingual and bilingual dictionaries. The investigations have, moreover, involved translation tasks (Nied Curcio 2022: 78), and the lexical features that have principally been examined are formal/informal words, polysemic words, homonyms, collocations, and multiwords units, all of which have been recognised as being especially problematic for Italian learners when having to translate (see also Nuccorini 1994; Mollica 2017; Mollica 2023). It is interesting to note that in all the studies carried out by means of different methodologies the results all seem to point to the same fact and that foreign language learners head directly for the information they are looking for, hardly ever reading the whole dictionary entry.

Given that "sono necessari studi che partano da questi risultati e si concentrino su singoli aspetti per ottenere informazioni ancora più precise, soprattutto sugli atti di consultazione degli utenti e i motivi di errori dell'utente, in particolare quando si usano dizionari online" (studies are needed that build on these results and focus on individual aspects in order to obtain even more precise information, especially on users' acts of consultation and the reasons for user errors, especially when using online dictionaries) (Nied Curcio 2022: 81), this study will be devoted to the fields of English and German Foreign Language Teaching, within an Italian university setting. More precisely, it falls into the category of studies that Welker (2010) classifies as those carried out in a concrete situation with a specific task (finding synonyms). The study will focus on a specific online resource (the thesaurus) and on specific lexical elements (words and multiword units) in order to investigate how efficient the resource is for Italian learners.

3 Methodology

The need to find synonyms can be for two major purposes, for decoding or encoding ones. However, even though users naturally turn to thesauri for writing purposes (Kipfer 1987; Siegel 2007; Müller Spitzer et al. 2018a), studies in lexicography have shown that synonymy has mainly focused on the readers' perspective to facilitate comprehension,

rather than on the writers' need for language production (Zock et al. 2010). Indeed, lexicographic teams seem to have concentrated more on the addition of words to lists rather than on improving the structure and the organization of the entries in thesauri, which has not only created problems for users having to choose synonyms (Murphy 2013; Storjohann 2006), but has made them generally quite unfriendly tools for production purposes (Chon 2009; Storjohann 2006), and especially for non-native speakers, who unlike native speakers are less easily guided by their mother-tongue instinct. It is the aim of this article to begin to investigate whether German and English thesauri should be redesigned to become better tools for production purposes. This will be done through a series of theoretically- and empirically-based studies on the use of the current tools available. The first of these, as represented by this work, will focus on testing the user-friendliness of two online thesauri, *Thesaurus.com* for English and *Openthesaurus. de* for German, by administering a series of synonym-finding exercises to second-year undergraduate students of English and German. The findings of this first step in the research project will be twofold: firstly, to understand the level of users' skills in accessing and retrieving the correct information and, secondly, to gauge whether there are lexicographical aspects that need addressing to improve the tools if not found to be efficient.

Participants

To carry out this preliminary research, we decided to test an English class and a German class of second-year undergraduate students, enrolled in the degree programme Languages and Literatures at the University of Milan. The choice of second years was determined by the fact that we wanted to exclude beginners. Indeed, among first-year undergraduate students enrolled in the programme above, along with more expert students it is possible to have in the same class absolute beginners and false beginners, especially for German. Indeed, we hoped to test two classes of students, who had all received the same type of training after a year at university, as far as both language and lexicographic skills are concerned. Second-year English and German students, enrolled in the degree programme Languages and Literatures at the University of Milan, normally have a B1/B2 level of language knowledge according to the CEFR framework.

Materials and procedure

To analyse the user-friendliness of thesauri, we opted for online works for ease of access under test conditions and because students tend now to opt for online tools anyway (Márkus/Fajt/Dringó-Horváth 2023: 180). The two tools are also the two thesauri that appear first following a google search. Two articles regarding global warming and climate change, one written in English (*Coral reefs: Why are they so important*?*)* and one

in German (*Korallensterben*: *Was ist das Problem*? (Coral death: What is the problem?), were then selected from the website *Deutsche Welle*. A Test sheet and Question sheet, based on the same article, were created for each language and five words were chosen for synonym substitution.

The five words were selected in such a way as to test the extent to which thesauri can be helpful in choosing matches for words or combination of words that, as mentioned above, have been seen to be problematic for learners. We chose a) words that have a strong connotation or semantic prosody, either postive or negative; b) polysemic or homonymic words; c) words that are polyfunctional (i.e. the same form can have different functions); d) words whose register is flexible and can vary from formal to informal accordingly; e) phrasemes whose meanings show different scales of idiomaticity (collocations, idioms etc.) (cf. Table 1):

Table 1: The typology of words.

		English	German
a)	Words with a strong connotation (either positive or negative)	*to cause*	*Überlebenschancen* (survival chances)
b)	Polysemic, homonymic and polyfunctional lexical units	*pretty, warming*	*verzehren* (to consume), *verbreitet* (widespread)
c)	Typically formal or informal words or words with a different meaning related to the situation (formal, informal)	*dodgy*	*Leute* (people)
d)	Phrasemes	*(not) to get a hold on*	(*nicht*) *in den Griff bekommen* ((not) to get to grips with)

As can be seen in Table 1, for the English language we chose a) the verb *to cause* that has a negative connotation or semantic prosody, b) *pretty* that can function as an adjective or as an adverb, thus having two different meanings, and *warming* that can be used as a present participle or as an adjective; c) the adjectvie *dodgy* that is usually used in informal registers; d) the phraseme *(not) to get a hold on*. For the German language, we chose a) the noun *Überlebenschancen* that has a positive connotation or semanti prosody; b) the verb *verzehren* that has two different meanings and *verbreitet* that can be used as a verb or attributive adjective; c) *Leute* whose register can be more or less formal depending on the context; d) the phraseme *(nicht) in den Griff bekommen*.

Two testsheets – one with the English text and one with the German text – along with a corresponding question sheet were administered to the English class of 39 and to the German class of 26 second-year undergraduate students. They were given forty five minutes to carry out the task of finding a suitable synonym for each of the five words in the assigned thesaurus only, including the accompanying dictionary of course. The words were clearly signposted in italics in order to stand out from the text. Besides having to find a suitable synonym, the students were asked to indicate under what

lemma they found the synonym and encouraged to motivate their choice, by adding any other information they deemed important for their choice.

To complete the test, the students were also asked to answer five questions regarding their exposure to the English and German languages as well their usual habits regarding the use of dictionaries. More precisely, they were asked: a) how long they had been studying English/German; b) what language level they are: B1 (pre-intermediate), B2 (intermediate), C1 (post-intermediate, advanced), C2 (near-native); c) what monolingual online lexicographic resources they usually use and for what purpose; d) what other tool they would have used to search for the synonyms. All the questions, both linguistic and personal, were provided in Italian – the students' mother tongue – in order to lower the affective filter and to allow them to work without feeling pressure of any kind (Krashen 1986). It was in fact explained to the students at the outset that this was an experiment and that it would not imply any sort of evaluation. Indeed, the students were asked not to put their names on the question sheets in order to safeguard anonymity.

4 Results

4.1 English

As far as the English class is concerned, all 39 students declared that they had been studying English for at least 10 years: 21 students for 10 years (since middle school); 13 students for 11–15 years (since primary school); the remaining 5 for over 15 years. They all also declared they have at least a B2 level of English according to the CEFR framework: in actual fact 24 students said they have a C1 level; 13 a B2 level, and 2 a C2 level of English.

The students also admitted that they do not habitually use thesauri. For writing essays and doing translations, they said they use online monolingual dictionaries or online tools such as *Reverso Context, Wordreference, Google Translate*. Indeed only 6 mentioned having ever used a thesaurus of any kind. Moreover, the other tools they would have preferred to use to carry out the synonym-finding task are the *Collins Online Dictionary*, *Cambridge Online Dictionary*, *Oxford Online Dictionary of English, Merriam Webster*, and in more general terms monolingual and bilingual dictionaries, along with the search engine *Google Search*.

Turning to the task, apart from one student for the verb *to cause*, 2 students for the words *warming* and *dodgy*, and 14 students for the phraseme *(not) to get a hold on*, all the students provided a synonym. The number and type of synonyms provided for each of the 5 words, representing the categories mentioned above, are reported below.

4.1.1 Words with a strong connotation (positive, negative)

When asked to replace the verb *to cause* in the sentence *"*Increased ocean temperatures *caused* by climate change is the main cause of coral bleaching events*"*, the students provided the synonyms as shown in Table 2.

Table 2: Synonyms for *caused*.

synonym	number
induced	10
generated	5
coming from	4
effected	4
stemmed/stemming from	4
activated	3
arising from	3
produced	2
created	1
done	1
provoked	1
total	**38**
no synonym	**1**

As we can see in Table 2, 10 students opted for the word *induced*, while 27 provided an array of 12 different synonyms ranging from *generated*, chosen by 5 students, to *created, done* and *provoked* chosen by one. One student failed to answer, explaining that they could not find a suitable synonym.

   Thesaurus.com provides three classes of matches for every entry word: strongest, strong, and weak. For the verb *cause*, in the sense of 'bring about', the class of strongest matches comprises the verbs *begin, create, generate, induce, lead to, make, precipitate, produce, provoke*; the class of strong matches is made up of the verbs *brainstorm, breed, compel, effect, elicit, engender, evoke, hatch, incite, introduce, kickoff, kindle, let, motivate, muster, occasion, open, originate, revert, secure*; and the weak-matches class holds the verbs *be at the bottom of, break the ice, bring to pass, come out with, cook up, dream up, fire up, get things rolling, give rise to, make up, result in, sow the seeds, start the ball rolling, think up, work up*. The fact that *induced* and *generated* – albeit with quite a wide numerical difference – are the topmost selected verbs may be explained by the fact that they appear among the strongest matches. This categorization system, offered by *Thesaurus.com*, may also have guided the 2 students who chose *produced* and the other 2 students, one of whom chose *created* and the other *provoked,* that are also among the strongest class of verb matches.

   While the 4 students who opted for *effected* may have chosen this synonym from the class of strong matches, it was not immediately evident from which class the synonyms *coming from, activated, stemmed/stemming from, arising from,* and *done* were

chosen. They are not in fact listed in any of the three classes of matches for the verb *cause*. By examining the linguistic and motivational comments accompanying the students' responses, it became clear that these synonyms were chosen by the students who looked up the adjective *caused* as opposed to the verb *cause*. Indeed, if we look up the adjective *caused* with the meaning 'originating', the strongest matches provided by *Thesaurus.com* include the adjectives *activated, arising,* and *stemming* chosen by 3 and 4 students respectively. If we look up the adjective *caused* with the meaning 'induce', among the strongest matches we can find *done* that was chosen by only one person.

It is clear that this array of different synonyms provided by the students for the word *caused*, interpreted either as a verb or as an adjective, reflects *Thesaurus.com*'s wealth of words and the ease with which they can be accessed directly via different parts of speech. It also highlights, however, the students' uncertainty in choosing the synonym of *cause*. Stubbs (1995) has shown that *cause* tends to have a negative semantic prosody given it is commonly associated with negatively connoted concepts, and especially "climate change", which occurs nearly 6,000 times in the corpus *English Web2021*.[8]

Within the strongest matches of synonyms for the verb *cause* in *Thesaurus.com*, the most negatively connoted verbs seem to be *induced* and *provoked*, whilst the most positively connoted ones seem to be *generated, produced, created*. The definitions and examples of use given in the accompanying dictionary (*Dictionary.com*) illustrate this fact:

Induce
1. to lead or move by persuasion or influence, as to some action or state of mind: e.g to induce a person to buy a raffle ticket.
2. to bring about, produce, or cause: e.g. That medicine will induce sleep.

Provoke
1. to give rise to, induce, or bring about: e.g. What could have provoked such an incident?

Generate
1. to bring into existence; cause to be; produce.
2. to create by a vital or natural process.
3. to create and distribute vitally and profusely: e.g. He generates ideas that we all should consider; e.g. A good diplomat generates good will.

Looking at the definitions of the verbs *induce* and *provoke*, the first two examples provided in *Dictionary.com* point to a change that is brought about by something or

---

8 In *English Web 2021* (made up of 61,585,997,113 tokens), accessed through *Sketch Engine*, "caused by climate change" returns 5,923 hits.

someone else. In describing a lack of own will, these verbs are imbued with a somewhat negative aura. In contrast to this, the example of use that accompanies the third meaning of the verb *generate* endorses creativity and goodness, which are instead commonly-held positive actions. These connotational meanings are however not made explicit by *Dictionary.com* and have to be inferred from the examples when they are provided. In fact, in the quotations above we can see that, unlike for the definitions of *induce* and *provoke*, *generate*, when used in the sense of 'cause', is not even accompanied by an illustrative example.

Whether these definitions and examples of use helped to guide a quarter of the students who opted for the synonym *induce* is not clear through the motivational information provided in the question sheets, but they certainly might have done. In the corpus *English Web 2021* "induced by climate change" in fact returns 425 hits, which is clearly a long way off from the number of hits that "caused by climate change" returns, but it is certainly more than the 125 hits returned by "generated by climate change", which is a rather awkward turn of phrase for a native speaker and was chosen by 5 students only.

That said, the negatively-connoted word *induced* is not the first verb that would come to mind to a native speaker when having to replace *caused* in the context of climate change. Neither is *provoked*, which in fact returns only 20 hits in *English Web 2021*, despite its summarily negative connotation. It is more likely that native speakers would use the more neutrally-connoted *brought about*. In the *English Web 2021*, "brought about by climate change" in fact returns 505 hits. While none of the students chose this phrasal verb, 3 students did opt for *arising from* which returns over 578 hits when referring to climate change. Indeed, unlike *coming from* that returns 42 hits, *stemming from* that returns 240 hits, *arising from* and *brought about* take on a more marked negative connotation that, by featuring the subject collocates "rising temperatures", "storms", "weather changes", "disasters", "risks", 'sound' better next to climate change.

Whilst being surely exhaustive by providing a plethora of matches that are subdivided into categories, expressing the strength of the synonymous relationships, *Thesaurus.com* does not seem to provide enough information as far as the connotation of the verb *cause* is concerned. Lexicological research has shown that 'cause' is a heavily negatively connoted verb and yet no explicit information regarding this is provided in its definition in relation to its synonyms. The 3 students, who opted for *arising from*, one of whom has a C2 level and two of whom have a C1 level of English, were undoubtedly guided by their intuition much more than by the semantic information provided in *Thesaurus.com* and accompanying *Dictionary.com*. Lack of native-speaker intuition compounded by a lack of clarity in *Thesaurus.com* may therefore explain why none of the students suggested the synonym *brought about* for *caused*. Even though many students mention this phrasal verb in order to indicate under which lemma they looked for the synonyms, none of them thought of adopting it as a suitable match. In *Thesaurus.com bring about* in fact appears as the definiendum of the verb *cause* and not among the possible matches in any of the three classes of synonyms. It is evident that the students, who are not mother-tongue speakers, did not even consider it.

4.1.2 Polysemic, homonymic and polyfunctional lexical units

When asked to replace the present participle *warming* in the sentence "They're suffering from bleaching, overfishing and are being cooked by *warming* oceans", the students provided the synonyms as shown in Table 3.

Table 3: Synonyms for *warming*.

synonym	number
boiling	13
heating	13
scalding	5
steaming	3
melting	1
mitigating	1
soothing	1
total	**37**
no synonym	**2**

Before reflecting upon the students' responses, it is important to clarify what the attributive phrase "warming oceans" really means. Even though the word *warming* is in an attributive position, it has a predicative function. *Warming* in this phrase is the present participle of the verb *warm* and means 'are heating up'.

From the answers provided in Table 2, it is clear that none of the students looked up in *Thesaurus.com* the verb *warm*: they all looked up the word *warming*. The two students who provided the synonyms *mitigating* and *soothing* indeed looked up the adjective *warming* that in *Thesaurus.com* is defined first as 'comfortable' and second as 'soothing'. From the former entry the students obtained both synonyms, respectively classified as a strong and a strongest match. Since the meaning of these adjectives has nothing to do with climate change and with the rise in ocean temperatures, it is clear that these students chose them without knowing their meanings.

The temperature-related meanings of the other synonyms listed in Table 3 would therefore suggest that the other students looked up the verb *warm* in the sense of 'to heat up'. This appears, however, not to be true. Along with their responses, these students in fact reported they looked up in *Thesaurus.com* the third and last entry of *warming*, classified as a noun and having the meaning of 'heating'. Under this entry *cooking* and *melting* are listed as the strongest synonyms, and *baking, boiling, broiling, grilling, roasting, scalding, steaming* as the strong ones. From this entry 1, 3, 5 and 13 students respectively chose *melting, steaming, scalding* and *boiling*.

While from a syntactic perspective these options might be suitable, because like *warming* in the phrase "warming oceans" they act as attributive adjectives, from a semantic perspective they are not exact. Unlike *warming*, they do not express the

idea of rising temperatures but rather point to temperatures that have reached their maximum heat. Aware of this slight meaning discrepancy, these students in fact made a point of underlining that they had chosen them only because they were the only ones that were the closest to *warming* within the context of global warming. The realization that the other matches listed under the noun *warming* are suitable only in the context of food and cooking in fact led the students to discard them.

It is the same awareness of food as the semantic preference for this noun that explains why the remaining 13 students chose the word *heating*. Even though these students also picked their synonym from under the noun *warming*, they opted for its definiendum. Indeed, unlike for 'bring about' – definiendum of *cause*, they claimed that 'heating' was the only possible option, disclosing a greater linguistic sensitivity here than earlier. However, while this sensitivity is valid as far as the meaning of *heating* is concerned, it is not in terms of its position next to *oceans*. "Heating oceans" is not a commonly used expression: it occurs only 21 times in the *English Web 2021* as opposed to "warming oceans" that occurs 1,537 times. In this case the students were intuitively led by the semantics of the word *heating*, whilst being unaware of the fact that it does not readily collocate with *oceans*.

That the students stopped at the structure of *warming* without worrying about the fact that as an adjective it has little or nothing to do with global warming or that as a noun it cannot provide a syntactically-correct equivalent only partly points to linguistic inexperience, it mainly points to a reluctance to use the thesaurus properly. Although most students were aware that the synonyms they found under the noun *warming* were not the best possible solutions, they did not explore the tool in search of other ones, including the 2 students who did not provide any matches because, as claimed, they could not find any suitable ones.

If the students had spent more time looking for a better solution to match the syntactic and semantic complexity of the word *warming* in the phrase "warming oceans", they would have found under the verb *warm* the more suitable equivalent *heat up*, which they could have used creating the periphrasis 'the oceans that are heating up'. Indeed, lack of native-like intuition compounded by a reluctance to explore the tool seems to have resulted in this poor outcome. Clearly, if *Thesaurus.com* included the adjective *warming* in the sense of 'heating up', then it is likely that the outcome may have been quite different.

When asked to replace the adverb *pretty* in the sentence "Coral reefs provide shelter and function as nursery grounds for some *pretty* commercially important fish, like grouper and snapper, as well as invertebrates like lobster", the students provided the synonyms as shown in Table 4.

Pretty is an example of a polysemic word because it points to different conceptual meanings. As an adjective it means 'attractive'; as an adverb it can have two senses: 'fairly/moderately' and 'quite/very' (see *Dictionary.com* s.v. *pretty*). In the sentence above, *pretty* undoubtedly functions as an adverb.

From Table 4, we can see that 36 out of 39 students understood this meaning of *pretty*. Indeed, except for the 3 students who, in choosing *beautiful, first rate*, and *tasteful*,

Table 4: Synonyms for *pretty*.

synonym	number
quite	13
considerably	11
rather	6
fairly	4
very	2
beautiful	1
first rate	1
tasteful	1
total	**39**
no synonym	**0**

erroneously opted for the adjectival meaning of the word, all the other students opted for the adverbial use. Unlike the words examined earlier, *pretty* can be replaced by a much wider range of matches, which probably made it easier for the students to choose the correct adverb. The synonyms *quite*, *considerably*, *rather*, and *very,* chosen by 32 students, are in fact all legitimate options because like *pretty* they mean to underline the importance of snappers and groupers in commercial terms. In appearing among the strongest matches in *Thesaurus.com* under the adverbial entry, it was thus relatively simple for the students not to pick the wrong one. It was not impossible though!

Surprisingly, unlike *Dictionary.com* and other dictionaries (see, for example, LDOCE, OALD), *Thesaurus.com* does not provide for *pretty* two separate entries according to whether it means 'moderately' or 'very'. In *Thesaurus.com* under the entry *pretty*, whose definiendum is 'very; moderately', we can in fact find among the strongest matches *considerably, quite, rather, somewhat,* and *very* that point to the meaning of 'very' and the synonyms *a little, fairly, kind of, moderately, reasonably* that point to the meaning of 'moderately', though not separated in this way but rather listed all together in alphabetical order. The 4 students who opted for *fairly* may thus have chosen this match unaware of its 'moderate' sense, even though it is well-defined in the accompanying *Dictionary.com*, or possibly because – as one student claimed – they thought it sounded better in the given context. It is hard to tell here whether it was the tool that misguided them or whether they did not have the linguistic sensitivity to choose the correct sense of the adverb.

4.1.3 Typically formal or informal words or words with a different meaning related to the situation (formal, informal)

When asked to replace the adjective *dodgy* in the sentence "It's a very generous name for some gastropods that look more like *dodgy* quesadillas", the students provided the synonyms as shown in Table 5.

Table 5: Synonyms for *dodgy*.

synonym	number
evasive	5
evasively tricky	5
shifty	5
ambiguous	3
crafty	3
dicey	3
risky	3
evasing	2
shaky	2
tricky	2
chancy	1
subtle	1
unreliable	1
unsafe	1
total	**37**
no synonym	**2**

As we can see from Table 5, the number of synonyms suggested for the word *dodgy* clearly surpasses the number provided for the three words seen so far. The distribution is, moreover, much more even. If for *caused*, *warming*, and *pretty* one or two matches stand out from the rest with at least 25% of students having opted for them (i.e. *induced*, *boiling/heating*, *quite/considerably*), for *dodgy* the matches that stand out were chosen by 12% of students only. It is an evenness that suggests even more uncertainty than in the cases seen so far.

Indeed, there are four different matches chosen by one student only (*chancy*, *subtle*, *unreliable*, *unsafe*); three chosen by 2 students (*evasing*, *shaky*, *tricky*) and four chosen by 3 students (*ambiguous*, *crafty*, *dicey*, *risky*), while the 'most' popular matches involve the 5 students who chose the synonyms *evasive*, *evasively tricky*, and *shifty*. That *evasive*, *evasively tricky*, and *shifty* are slightly more popular than the other matches might be explained by the fact that in *Thesaurus.com* they are the strongest ones: *evasive* and *shifty* are actually the only two synonyms provided in the strongest category, while *evasively tricky* is the lemma's definiendum. All the other synonyms belong to the strong and weak categories of matches.

This notwithstanding, *evasive, evasively tricky*, and *shifty* are not at all the best matches for *dodgy* here. *Evasive, evasively tricky*, and *shifty* all point to 'untrustworthiness' or 'deceitfulness', as the definiendum 'evasively tricky' suggests, but this is not what *dodgy* means next to *quesadillas*. *Evasive, evasively tricky*, and *shifty* are suitable synonyms when describing people's behaviour but not when describing food.

Dodgy next to *quesadillas* means 'dangerous'. It is the third sense of *dodgy* when we look it up in *Dictionary.com*:

Adjective, dodg·i·er, dodg·i·est.
1. inclined to dodge.
2. evasively tricky: a dodgy manner of dealing with people.
3. chiefly British. risky; hazardous; chancy.

Indeed, as we can see from the entry reported above, *dodgy* that means *risky, hazardous*, and *chancy* is the sense that the students should have opted for to replace *dodgy*. However, only 6 students seemed aware of this: 3 students in fact picked *risky* and 3 each chose *chancy, dicey*, and *unsafe*. All the other students chose synonyms that suggest unreliable behaviour, as do *evasive, evasively tricky*, and *shifty*.

While consulting the accompanying dictionary in the thesaurus may have helped the students opt for the correct sense of *dodgy*, the lack of examples included in the dictionary would not have helped them to choose the right match. Indeed, in the context of food, *risky* and *unsafe* are the only possible options, while *chancy* and *dicey* are not suitable (in *English Web 2021 dicey food* in fact occurs only twice and *chancy food* does not occur at all). Emblematic is indeed the comment made by one student (with a B2 level of English) who claimed that there were too many synonyms to choose from but no examples of use to help him/her choose the right one for the context of use.[9] It is the same justification that the two students who did not give an answer also provided. In reading the students' responses along with their comments, the impression is that the students were on the whole partly at a loss with what *dodgy quesadillas* meant, and partly unable to find a suitable equivalent. *Dodgy* in fact does not just have more than one meaning, it also has a colloquial and informal meaning, thus making it more likely that learners will be unfamiliar with it, especially in relation to food. In failing to point out the informal nature of *dodgy* as well as in failing to provide targeted examples for its different contexts of use, both *Thesaurus.com* and *Dictionary.com* seem to underestimate the intricate and singular nature of this word, especially for learners of English.

4.1.4 Phrasemes

When asked to replace the phraseme (*not*) *to get a hold on* in the sentence "But these efforts might all be in vain if humanity *doesn't get a hold on* climate change, which presents the biggest singular threat to the future of coral reefs", the students provided the synonyms as shown in Table 6.

What clearly stands out in Table 6 is the number of students who did not provide a match for the phraseme *(not) to get a hold on*. The explanation for this, which was also

---

9 "L'ampia possibilità di scelta mi ha un po' confuso, sarebbe stato d'aiuto la presenza di qualche esempio per capire il contesto adeguato in cui utilizzare ogni sinonimo".

Table 6: Synonyms for *doesn't get a hold on*.

Synonym	number
control	5
end	4
approach	3
buck	1
cling	1
comprehend	1
consider	1
doesn't get a grip on	1
doesn't go on	1
grasp	1
handle	1
have the upper hand with	1
hold on	1
overtake	1
persist	1
withstand	1
Total	**25**
no synonym	**14**

expressed by many students in accompanying comments, was that the phraseme does not exist in *Thesaurus.com*. Indeed, if you look up *get a hold on* in *Thesaurus.com* and in *Dictionary.com*, you will not find it. While *Dictionary.com* says that no results can be found for it, *Thesaurus.com* suggests looking up other phrasemes, among which appear *get a hold of, have a hold upon,* and *hold on.* However, because the students were specifically asked not to consult other tools besides *Thesaurus.com*, being inaccessible, the phraseme was considered as unmatchable for 14 of them.

A look at the matches that were provided by the remaining students suggests they simply guessed, guided by one of the similar-looking phrasemes and by their intuition. It is the case of the 12 students who opted for the verbs *end, approach, buck, comprehend,* (*doesn't*) *go on, grasp, handle, overtake* that are listed among the various matches of the verb *to get a hold of* in the sense of 'reach'. It is the case of the 5 students who looked up the verb *hold on* and under its various senses found *doesn't get a grip of, cling, hold on, persist,* and *withstand,* as well as of the student who opted for *have the upper hand* under *to have a hold upon.* Only a few more adventurous students decided to explore *Thesaurus.com* further, looking for matches under the noun *hold* (meaning 'possession'), which returned the synonym *control* for 5 students, and under the verb *hold* in the sense of 'believe', which returned the synonym *consider* for one student. These matches seem haphazardly chosen, giving the impression that the students were not really sure of the meaning of the phraseme they had to replace.

While this may have been true for some, it was not true for all of them. For instance, one of the students, who opted for the verb *approach*, commented that they would have gladly used another word (*tackle*) that was not provided as a match and that, albeit unsuitable, they thought *approach* was the 'least worse' option.[10] Indeed, in having had the instruction to use *Thesaurus.com* only, many students claimed they had chosen matches only from the words indicated by the tool, even though they were not happy with them. None ventured to propose their own synonym.

The phrasal verb *to get a hold on* is in actual fact not an easy verb to replace. In the context in which it is used in the text it means 'to get a better understanding of something and to tackle it'. It has a metaphorical meaning that only partly overlaps with *to get a hold of* in the sense of *comprehend, grasp,* and *handle.* The complexity of its collocational meaning may therefore explain why it is not found in *Thesaurus.com*, *Dictionary.com*, and in many other English dictionaries. This is nonetheless surprising given that it has 3,866 occurrences in the *English Web 2021* and is therefore a commonly used phraseme. Even though it is informal and idiomatic, it might be well worth including it in lexicographic tools.

4.2 German

As far as the German class is concerned, all 26 students declared they have been studying German for more than 2 years: 7 students for 7 years; 6 students for 2 years; 4 students for 8 years; 2 students for 6 years and 2 students for 5 years; 1 student for 13 years, 1 student for 10 years, 1 student for 9 years, 1 student for 3 years. 1 student is bilingual. They also declared they have a B1/B2 level of German: 16 students say B1; 8 students say B2; 1 student says C1; 1 student says C2. They admitted that they do not habitually use thesauri for writing essays and for doing translations, but would rather use online monolingual dictionaries (*Duden* – 24; *Wiktionary* – 3; DWDS – 2; *Langenscheidt* – 1). Only one student declared that they had never used a lexicographic resource. The other tools they stated they regularly use are bilingual dictionaries (*Pons*, *Leo* and *Wordreference*), the multilingual neural machine translation service *Google Translate*, the search engine *Google Search* and parallel corpora like *Context Reverso*.

4.2.1 Words with a strong connotation (positive, negative)

When asked to replace the noun *Überlebenschancen* (chances of survival) in the following sentence "Langfristig bietet nur ein Rückgang der globalen Treibhausgasemis-

---

10 "'Approach' non mi soddisfa. Avrei usato un'altra parola (tackle) che qui non è inclusa. 'Approach' mi sembra il piuttosto meno peggio".

Table 7: Synonyms for *Überlebenschancen*.

synonym	number
Überlebensaussichten (survival prospects)	9
Fortlebensmöglichkeit (possibility of survival)	1
Überlebensmöglichkeit (possibility of surving)	1
Überlebenshoffnung (hope of survival)	1
Möglichkeit am Leben zu bleiben (possibility to stay alive)	1
Möglichkeit zu überstehen (possibility to survive)	1
Fortleben Chancen (opportunities to live on)	1
am Leben bleiben (stay alive)	1
angesehen (regarded)	1
total	**17**
no synonym	**9**

sionen echte *Überlebenschancen* für Korallenriffe" (in the long term, only a reduction in global greenhouse gas emissions offers real chances of survival for coral reefs), the students provided the synonyms as shown in Table 7.

Table 7 shows, firstly, that 9 students selected *Überlebensaussichten,* while 8 students chose different words, which, like *Fortlebensmöglichkeit, Überlebensmöglichkeit,* and *Überlebungshoffnung,* are partial equivalents or which are paraphrases such as *Möglichkeit am Leben zu bleiben.* Secondly, it shows that 9 students failed to provide any matches, stating that they found no support from the lexicographic resource.

*Openthesaurus.*de in fact provides only one synonym for the compound *Überlebenschancen*, and that is *Überlebensaussichten*. However, only 9 students chose it as a synonym, showing that the others were not convinced with the information provided in the resource. The students who chose it in fact claimed that it was the only option available.

Not wholly convinced with the synonym provided in the tool, 8 students divided the compound into its two components *Überleben* and *Chance* and looked them up separately. They creatively provided the following matches: changing both units, as in *Fortlebensmöglichkeit,* changing only the principal element of the compound (*determinatum*) as in *Überlebensmöglichkeit* and *Überlebenshoffnung* (giving the singular form as an answer), or changing the secondary element (*determinans*) as in the incorrect

form *Fortleben Chancen.* Using the synonym *Möglichkeit* for *Chance*: 2 students provided the paraphrase *Möglichkeit am Leben zu bleiben* and *Möglichkeit zu überstehen.* One student provided a synonym for the *determinans* of the compound (*am Leben bleiben*) only, and one student gave a completely incorrect solution *(angesehen).*

From these results, it might be safe to say that the most popular strategy used by the students to find a suitable match for the word *Überlebenschancen* was to rely on their previous competences and personal knowledge, given that the tool provides no alternatives nor examples of use for it.

4.2.2 Polysemic, homonymic and polyfunctional lexical units

When asked to replace adjective *weit verbreiteten* (widely spread) in the following sentence "Ein anderer vielversprechender Wirkstoff, Eleutherobin, verlangsamt im Labor das Wachstum von Krebszellen und kommt in einer *weit verbreiteten* Weichkorallenart vor" (another promising substance, eleutherobin, slows the growth of cancer cells in the laboratory and is found in a widespread species of soft coral), the students provided the synonyms as shown in Table 8.

Table 8: Synonyms for *verbreiteten*.

Synonym	number
üblich (usual)	5
ausgebreiteten (spread)	4
diffundierten (diffused)	3
verbreiteten (spread)	1
sich ausbreiten (expand)	1
propagierten (propagated)	1
entstehen (arise)	1
gängigen (common)	1
angesehen (appreciated)	1
gebieten[11]	1
erheben (raise)	1
bilden (create)	1
ausdehnen (expand)	1
total	**22**
no synonym	**4**

As Table 8 shows, the synonym *üblich* is the one most students opted for, followed by *ausgebreiteten* and *diffundierten.* The plethora of different matches provided, however, points once again to a certain amount of uncertainty on the students' part, which

---

11 This word does not exist.

emerges especially in relation to the parts of speech that the matches provided belong to (sometimes the infinitive verb and sometimes the adjective). 4 students stated that they found no support from the lexicographic resource.

These results can be explained by the fact that the students wrote the form *verbreiteten* in the search mask (without *weit*). Consequently, the thesaurus offers two possibilites to choose from: the verb *verbreiten* or the adjective *verbreitet*. For the first choice (the verb *verbreiten*) the resource provides three groups of synonyms: two groups with (*sich*) *verbreiten* and one with *verbreiten*. In the list of synonyms we can find some of the choices (for example *ausbreiten*). On the right hand side of the page, further information taken from *Wiktionary* is provided: i.e. the definition of the lemma and other synonyms. For the second choice (the adjective *verbreitet*), the tool provides only a group of synonyms, among them we can also find some options chosen by the students: *gängig*, *üblich*, *verbreitet*. On the right hand side of the page also the information taken from *Wiktionary* provides insight into the word's meanings and synonyms. In this second choice there is also *weit verbreitet*, written separately or together (*weitverbreitet*).

It is clear that only 6 students focused on this second option, chosing *üblich* and *gängig* as a synonym, while 7 opted for the first option. 4 students must have got lost, giving completely wrong answers (*angesehnen*, *gebieten*, *erheben*, *bilden*). Again the cause of these problems could be ascribed to the lack of examples of use, but in this case also to the organisation of the entry, which is also rather confusing. Even though the presence of examples might certainly have aided the students, the major problem for them was that they wrote the form of the word in the search mask, without considering the lemma. Furthermore, they failed to focus on *weit*. A lack of competence in using lexicographic tools correctly can also be seen as a cause of these poor results.

4.2.3 Typically formal or informal words or words with a different meaning related to the situation (formal, informal)

When asked to replace the verb *verzehren* (consume) in the following sentence "Menschen *verzehren* jährlich etwa 150 Millionen Tonnen Fisch und Meeresfrüchte, und diese Tiere müssen sich irgendwo fortpflanzen" (Humans consume around 150 million tonnes of fish and seafood every year, and these animals have to reproduce somewhere), the students provided the synonyms as shown in Table 9.

Table 9: Synonyms for *verzehren*.

synonym	N.
konsumieren (to consume)	8
essen (to eat)	4
vernaschen (to snack on)	4

Table 9 (continued)

synonym	N.
nehmen (to take)	2
nutzen (to utilise)	2
aufessen (to eat up)	2
einnehmen (to ingest)	1
sich verzehren (to consume oneself)	1
zu sich nehmen (to consume)	1
total	**25**
no synonym	**1**

As Table 9 shows, *konsumieren* is the match that most students opted for, followed by *essen* (more general), and *vernaschen* that is not only incorrect in this context, but does not appear as a possible match in the thesaurus. Some students chose *nehmen*, but without *zu sich*, thus giving an incomplete answer, *aufessen* (that is not correct in this context), *einnehmen*, and *sich verzehren* (that is also not correct). *Zu sich nehmen* was chosen once, while 2 students chose *nutzen*, which is however not present in the resource.

The verb *verzehren* has two meanings (cfr. DWDS[12]), the first is 'to eat something' (*etw. essen*) and the second, elevated and figurative 'something consumes sb., in the sense that that sth. demands a great deal of sb.'s physical and mental strength'. In this context it is used with the first meaning. *Openthesaurus.de* provides *aufessen*, *aufzehren*, *konsumieren*, *zu sich nehmen* as options and (*sich*) *einverleiben*, *essen*, (*sich*) *gütlich tun* (*an*) as associated words. The verb *verzehren* is also given as part of the verb (*sich*) *verzehren nach* in another group of verbs with the sense of 'to crave for' (to adore). This option is not correct in this context. *Openthesaurus.de* also includes data from *Wiktionary*, providing the meanings of the verbs and synonyms: *essen* (to eat), *trinken* (to drink) for the first meaning and *vernichten* (to crash) for the second one. Considering the description of the entry in *Openthesaurus.de*, it is clear that the students were provided both with the group of possible synonyms and with the definition, but none of the students indicated the description of the meaning as a reason for their choice. The most common reason offered was that the match seemed the most suitable one in the context of use (17 ss). Only 4 students opted consciously for the more generic option (*essen*) and 2 used their previous competences.

Even for this word, the main problem encountered was the lack of examples of use to support the choice of the right verb. Another criticism made by the students was the lack of labels to distinguish the register and the organisation of the entry, which was considered confusing.

---

12 *verzehren*, provided by DWDS, <https://www.dwds.de/wb/verzehren>, accessed 31.03.2024.

When asked to replace the noun *Leute* ('people') in the following sentence "Ok, aber das ist ja nur für *Leute* relevant, die am Meer leben" (Ok, but that's only relevant for people who live by the sea), the students provided the synonyms as shown in Table 10.

Table 10: Synonyms for *Leute*.

synonym	number
Menschen (people)	18
Volk (nation)	3
Personen (persons)	3
Bewohner (inhabitants)	1
Menge (crowd)	1
total	**26**
no synonym	**0**

The noun *Leute* is a noun that is used only in the plural form[13] and has a different meaning according to the context of situation, whether formal or informal. Generally, and in this case, it means 'persons', but if it used in an informal, colloquial context it means 'worker, employee' (i.e. also 'soldats') or 'family members'. In Table 10, we can see that almost all the students chose plausible synonyms, like *Menschen*, or *Personen.* The 5 students who opted for *Volk, Bewohner*, and *Menge* were the only few to have made a mistake.

Even though this word was successfully replaced by the majority of students – possibly because it is an item of vocabulary that is learnt at an elementary level (A1) of German,[14] almost 20% of the students still managed to opt for an informal match. In *Openthesaurus.de* there are in fact six groups of synonyms, five of which provide matches that are suitable in informal contexts, and only one that provides matches in formal ones. From the latter, most students clearly chose *Menschen* and *Personen*, which are formal matches. However, from the same group, one student chose *Volk* that is not appropriate here because it has a different meaning: 'community, large group of people of the same descent, language and culture'.[15] Another student was also drawn by *Volk*, through which he/she erroneoulsy arrived at *Bewohner* which is formal as is *Menge* that was chosen by one student from one of the informal groups of synonyms.

The reason why so many students opted for the correct synonym here is surely because *Leute* in its formal context of use is among the items of vocabulary that students learn in the first year of German. The reasons why, on the other hand, some students opted for the matches that are more suitable in informal contexts might be many

---

13 *Leute*, provided by DWDS, <https://www.dwds.de/wb/Leute>, accessed 15.03.2024.

14 See https://www.goethe.de/pro/relaunch/prf/de/A1_SD1_Wortliste_02.pdf [15.03.24].

15 *Volk*, provided by DWDS, <https://www.dwds.de/wb/Volk>, accessed 15.03.2024.

and varied. It may be partly owing to the way that the thesaurus presents the word *Leute*, devoting more space to informal than to formal matches and failing to provide examples of use in order to clarify the difference between the two registers of use. It may also be partly owing to the students' misunderstanding of the context in which *Leute* appears in the text, and to their incapacity of finding their way around the tool and of distinguishing between the superordinate *Leute* and its hyponyms such as *Volk* and *Bewohner*, and to their being too lazy to look up semantic information in the accompanying *Wiktionary*.

4.2.4 Phrasemes

When asked to replace the phraseme *(nicht) in den Griff bekommen* ('(not) to get to grips with') in the following sentence "Doch all diese Bemühungen könnten umsonst sein, wenn die Menschheit den Klimawandel nicht *in den Griff bekommt*" (but all these efforts could be in vain if humanity fails to get to grips with climate change), the students provided the synonyms as shown in Table 11.

Table 11: Synonyms for (*nicht*) *in den Griff bekommen*.

synonym	number
bändigen (to tame)	7
unter Kontrolle haben (to have under control)	5
kontrollieren (to control)	3
bezwingen (to overcome)	3
im Griff haben (to have under control)	1
bewältigen (to cope with)	1
meistern (to master)	1
schaffen (to create)	1
Kontrolle über etwas gewinnen (to gain control over something)	1
ergreifen (to take hold)	1
total	**24**
no synonym	**2**

We can see from Table 11 that 7 students answered *bändigen*, which along with *bezwingen* are not the best possible options, 5 students chose *unter Kontrolle haben* (which is correct), 3 students *kontrollieren* (also partially correct), one student *im Griff haben* (that is partially correct), one student *Kontrolle über etwas gewinnen* (correct). One student opted for *ergreifen*, forgetting to write *Kontrolle*. Only 2 students were unable to provide a synonym.

Openthesaurus.de provides two groups of synonyms for *in den Griff bekommen*: a first group in which the phraseme means 'to have sth. under control'[16] and a second group in which it has a slighlty different meaning that points to the nuance 'to find a solution for sth.; to master, to cope with sth'. No further information is provided as far as examples of use are concerned.

Analysing the students comments and checking the resource, it looks as though the students chose *bewältigen*, *meistern*, and *schaffen* (not correct in this context) either through the match *gebacken bekommen* that appears in the second group of synonyms or by looking up the negative form *nicht in den Griff bekommen*, which leads to *nicht bewältigen*, *nicht schaffen* (not correct in this context).

Bezwingen and bändigen seem instead to have been reached through *bewältigen* (i.e. *überwältigen*), but it is not clear which route they took.

Even though the phraseological unit (*nicht*) *in den Griff bekommen* is present in the resource and therefore certainly a plus point for it, its two different meanings are not clearly exemplified. This explains why some students opted for some less suitable matches, and why some reached the more appropriate ones indirectly. Once again the students lamented the lack of examples of use and unclear presentation of matches in *Openthesaurus.de.*

5 Discussion and outlook

This experiment, which has served as a trial to understand whether it is worth pursuing the idea that thesauri should be redesigned to become better tools for production purposes, seems indeed to have borne the initial results we expected. The data obtained from the second-year undergraduate English- and German-language students, who were asked to find synonyms for five words in a text by looking them up respectively in the *Thesaurus.com* and in the *Openthesaurus.de* has in fact provided the evidence that, firstly, users have problems in accessing and retrieving the correct information from thesauri and, secondly, that there are aspects that lexicographers need addressing for thesauri to become better linguistic tools.

That the students had difficulty in accessing and retrieving the correct information is quite blatant. It emerges clearly from the number and type of matches provided for each word requiring substitution. The fact that the variety was often quite wide is indicative that the students were uncertain about which synonym to choose. It is, moreover, an uncertainty that the students themselves admitted to in their responses. In many cases, they commented that they were not sure which word to choose and that they had just followed their linguistic knowledge or instinct (i.e. what 'sounded'

---

16 The two aspects that are divided in *Openthesaurus.de* are united in the definition of the DWDS (https://www.dwds.de/wb/etw.%20in%20den%20Griff%20bekommen) [15.3.24].

better). However, for these second-year students a native-like language instinct is still far off, and it explains why the matches chosen were sometimes partially and sometimes totally wrong.

The difficulty in being able to retrieve the correct information is not, however, only a question of linguistic uncertainty, it is also due to the lack of experience in using the tool. Most of the students involved in this experiment declared they had never used a thesaurus before and this emerges quite clearly when looking at the matches provided. Inexperience seems to have led many of them either to look up the wrong word in the thesaurus or to stop at the first hurdle and not look beyond the match they were incidentally not happy with. Both *Thesaurus.com* and *Openthesaurus.de* are accompanied by a dictionary that the students could have accessed had they wished to check meanings. While this reluctance might be explained by the fact that the students were specifically asked to use the thesaurus and no other tool during the task, it is not insignificant that most students, despite having claimed that they normally use online dictionaries for writing production, did not use the accompanying dictionary to help them distinguish meanings. As Nied Curcio (2022) clearly underlines there is a strong need to teach learners how to use dictionaries.

The truth is that, unlike native speakers, learners need to be guided much more when they use lexicographic tools, which is why learner lexicography has become such an important branch of theoretical and applied linguistic studies (see Cowie 2009; Fontenelle 2009). *Thesaurus.com* and *Openthesaurus.de* are not learner thesauri and this may also be why students found them quite difficult to use. Indeed, for most of the words the students were asked to substitute both thesauri provided long lists of matches. Unlike a native speaker who would not find it difficult to pick the correct synonym, the students claimed that with so many options it was difficult to find the right match for the given context.

As often declared in their responses, the students would have appreciated examples of use in order to understand how the matches can be used in context. Examples of use exist but they are not presented in a systematic and orderly manner. The only way to access targeted illustrative examples is through the accompanying dictionary, which as stated above was hardly ever consulted. Since the labels that distinguish formal from informal use are not always applied to the words in the thesauri, the students found it difficult to understand the register of the synonyms too. Indeed, in *Thesaurus.com* some very informal phrasemes, such as (*not*) *to get a hold on*, were not even included.

Despite the evident methodological limits of this study[17] that comprise the restricted number of participants involved, the choice of one text only, the restricted number and subjective selection of words requiring substitution, which in some cases are not fully comparable between the two languages concerned – English and German – and the fact that the findings of this study are limited in time owing to the evolving nature of

---

17 For the most common methodogical weaknesses see Welker (2010: 25–27).

online thresauri (Nied Curcio 2022: 71), we might tentatively conclude that problems exist regarding the user-friendliness of *Thesaurus.com* and *Openthesaurus.de*. While these thesauri may indeed be efficient tools for native speakers, they are less so for learners. As Susan Lloyd's words suggest in the preface to Roget's 1982 edition, thesauri help users that have a consolidated knowledge of language.

> You cannot find a word you have forgotten or do not know in a dictionary […]. But find a word of similar meaning in a thesaurus, and you will discover a variety of expressions which should include the one at the back of your mind, or perhaps an unfamiliar word which when checked in the dictionary, proves even more appropriate (Lloyd 1982: vii).

Native or near native speakers' language instinct can indeed guide them round the various matches, allowing them to pick the most suitable one for every context of use. Language learners, who are largely inexperienced in using them, may find these works confusing or not exhaustive enough. A much more dedicated tool is needed for them. To see if we can find any confirmation in this, our next step will be to extend this research to other thesauri, including a series of learner thesauri.

6 Bibliography

6.1 Research literature

Abel, Andrea (2024): Von Duden bis Deepl: zur Verwendung lexikografischer Ressourcen im Südtiroler Sprachunterricht (L1, L2, L3) im Spannungsfeld normativer Vorgaben und schulischer Praxis. In: *Linguistik online* 126:2/24, 17–36.

Basile, Grazia (2023): Synonymy and contextual dependence. In: Capone, Alessandro/Penna, Assunta (eds.): *Exploring contextualism and performativity. Perspectives in pragmatics, philosophy & psychology*, vol 30. Cham: Springer, 41–54.

Bellmann, Günter (1968): Zur Abgrenzung und Terminologie bedeutungsgleicher und bedeutungsverwandter lexikalischer Einheiten. In: *Zeitschrift für Mundartforschung*, 35, 3/4 (Dec. 1968), 218–233.

Chon, Yuah V. (2009): The electronic dictionary for writing: a solution or a problem? In: *International journal of lexicography* 22:1, 23–54.

Cowie, Anthony (2009): The earliest foreign language fictionaries. In: Cowie, Anthony P. (ed.): *The Oxford history of English lexicography*, vol. 2: *Specialized dictionaries*. Oxford: Oxford University Press, 385–411.

Cruse, Alan (2000): *Meaning in language: an introduction to semantics and pragmatics*. Oxford: Oxford University Press.

Cuyckens, Hubert/Taylor, John R./Dirven, René (2009): *Cognitive approaches to lexical semantics*. Berlin/New York: Mouton de Gruyter.

Dominguez Vasquez, María J./Mollica, Fabio/Nied Curcio, Martina (2014): *Zweisprachige Lexikographie zwischen Translation und Didaktik*. Berlin/Boston: De Gruyter.

EunHee, Lee (2022): *An introduction to lexical semantics*. Abingdon: Taylor and Francis.

Flinz, Carolina/Ballestracci, Sabrina (2022): Das LBC-Wörterbuch: Eine erste Benutzerstudie. In: Klosa-Kückelhaus, Annette, et al. (eds.): *Dictionary and society*. Mannheim, IDS Verlag, 460−470.

Fontenelle, Thierry (2009): Linguistic research and learner's dictionaries: 'the Longman Dictionary of Contemporary English'. In: Cowie, Anthony P. (ed.): *The Oxford history of English lexicography*, vol. 2: *Specialized dictionaries*. Oxford: Oxford University Press, 412–435.

Geeraerts, Dirk (2010): *Theories of lexical semantics*. Oxford: Oxford University Press.

Goddard, Cliff/Wierzbicke, Anna (2014): *Words and meanings: lexical semantics across domains*. Oxford: Oxford University Press.

Hahn, Marion (2004): Synonyme und Quasi-Synonyme in lexikografischer Hinsicht. In: *Neuphilologische Mitteilunge*n 105:1, 3–20.

Harras, Gisela (2001): Synonymie und Synonymik. In: Harras, Gisela (ed.): *Kommunikationsverben. Konzeptuelle Ordnung und semantische Repräsentation*. Tübingen: Narr, 131–193.

Hartmann, Reinhard R.K./James, Gregory (2000) (eds.): *Dictionary of lexicography*. Beijing: Foreign Language Teaching and Research Press.

Haß-Zumkehr, Ulrike/Sanders, Daniel (1994): Onomasiologisches Arbeiten im 19. Jahrhundert. In: Hüllen, Werner (ed.). *The world in a list of words*. Berlin/New York: De Gruyter, 265–274.

Hausmann, Franz Josef (1986): Für und Wider einer distinktiven Synonymik des Deutschen. In: Weiss, Walter/Wiegand, Herbert E./Reis, Marga (eds.): *Textlinguistik contra Stilistik? Wortschatz und Wörterbuch (Kontroversen, alte und neue). Akten des VII. Internationalen Germanisten-Kongresses Göttingen 1985*, vol. 3. Tübingen: Niemeyer, 237–241.

Hausmann, Franz Josef (1989): Le dictionnaire de collocations. In: Hausmann, Franz J., et al. (eds.): *Wörterbücher. Dictionaries. Dictionnaires. Ein internationales Handbuch zur Lexikographie*, Teilbd. 1. Berlin/New York: De Gruyter, 1010–1019.

Hausmann, Franz Josef (1990): Das Synonymenwörterbuch: Die kumulative Synonymik. In: Hausmann, Franz J., et al. (ed.): *Wörterbücher. Dictionaries. Dictionnaires. Ein internationales Handbuch zur Lexikographie*, Teilbd. 2, Berlin/New York: De Gruyter, 1076–1080.

Henne, Helmut (1977): Nachdenken über Wörterbücher: Historische Erfahrungen. In: Drosdowski, Günther/Henne, Helmut/Wiegand, Herbert E. (eds.): *Nachdenken über Wörterbücher*. Mannheim/Wien/Zürich: Dudenverlag, 7–49.

Hüllen, Werner (2009): Dictionaries of Synonyms and Thesauri. In: Cowie, Anthony P. (ed.): *The Oxford history of English lexicography*, vol. 2: *Specialized dictionaries*. Oxford: Oxford University Press, 25–46.

Ickler, Theodor (1988): Wörterbuchkultur in Deutschland. In: Harras, Gisela (ed.): *Das Wörterbuch. Artikel und Verweisstrukturen*. Düsseldorf: Schawann, 374–393.

Kipfer, Barbara A. (1987): Dictionaries and the intermediate student: communicative needs and the development of user reference skills. In: Cowie, Anthony P. (ed.): *The dictionary and the language learner*. Tübingen: Niemeyer, 44–54.

Klosa, Annette (2016): Der lexikographische Prozess im Projekt elexiko. In: Hildenbrandt, Vera/Klosa, Annette (eds.): *Lexikographische Prozesse bei Internetwörterbüchern*. OPAL 1/2016. Mannheim: Institut für Deutsche Sprache, 29–38.

Krashen, Stephen D. (1986): *Principles and practice in second language acquisition*. Oxford: Pergamon Press.

Kühn, Peter (1985): Gegenwartsbezogene Synonymenwörterbücher des Deutschen: Konzept und Aufbau. In: *Lexicographica* 1, 51–82.

Kühn, Peter (1998): Positionen und Perspektiven der Wörterbuchdidaktik und Wörterbucharbeit im Deutschen. In: *Lexicographica* 14, 1–13.

L'Homme, Marie-Claude (2020): *Lexical semantics for terminology. An introduction*. Amsterdam: John Benjamins.

Lloyd, Susan, M. (1982): Preface. In: Roget, Mark Peter (ed.): *The Penguin Roget's thesaurus of English words and phrases*. London: Penguin.

Maiernborn, Claudia/Heusinger, Klaus von/Portner, Paul (2019) (eds.): *Semantics – lexical structures and adjectives*. Berlin/Boston: De Gruyter.

Márkus, Katalin P./Fajt, Balázs/Dringó-Horváth, Ida (2023): Dictionary skills in teaching English and German as a foreign language in Hungary: A Questionnaire Study. In: *International journal of lexicography* 36, 173–194.

Meyer, Christian M./Gurevych, Irina (2010): Worth its weight in gold or yet another resource – a comparative study of Wiktionary, OpenThesaurus and GermaNet. In: Gelbukh, Alexander (ed.): *CICLing* 2010, LNCS 6008, 38–49.

Mollica, Fabio (2017): Wörterbuchkritik und Wörterbuchbenutzungsforschung. In: Bielińska, Monika/Schierholz, Stefan J. (eds.): *Wörterbuchkritik – Dictionary criticism*. Berlin/Boston: De Gruyter, 133–171.

Mollica, Fabio (2023): Collocazioni nella lessicografia bilingue (italiano-tedesco): i dizionari sono realmente user-friendly? In: Autelli, Erica/Konecny, Christine/Lusito, Stefano (eds.): *Dialektale und zweisprachige Phraseographie = Fraseografia dialettale e bilingue = Fraseografía dialectal y bilingüe*. Tübingen: Julius Groos im Stauffenburg Verlag, 241–268.

Müller-Spitzer, Carolin (2016): Wörterbuchbenutzungsforschung. In: Klosa, Annette/Müller-Spitzer, Carolin (Hrsg.): *Interlexikographie. Ein Kompendium*. Berlin/Boston: De Gruyter, 291–342.

Müller-Spitzer, Carolin, et al. (2018a): Eine europaweite Umfrage zu Wörterbuchbenutzung und -kultur. Ergebnisse der deutschen Teilnehmenden. In: *Sprachreport* 2/2018, 34. Jahrgang, 26–35.

Müller-Spitzer, Carolin, et al. (2018b): Correct hypotheses and careful reading are essential: results of an observational study on learners. Using online language resources. In: *Lexikos* 28, 287–315.

Murphy, Lynne M. (2013): What we talk about when we talk about synonyms (and what it can tell us about thesauruses). In: *International journal of lexicography* 26:3, 279–304.

Nabel, Daniel (2005): *OpenThesaurus: ein offenes deutsches Wortnetz*. [https://www.danielnaber.de/publications/gldv-openthesaurus.pdf; last access: 15.03.2024].

Nied Curcio, Martina (2022): *L'uso del dizionario nell'insegnamento delle lingue straniere*. Roma: Roma Tre-press.

Nuccorini, Stefania (1989): *Il dizionario pedagogico monolingue inglese: valutazione e validità*. In: *SILTA (Studi Italiani di Linguistica Teorica e Applicata)* 18, 401–422.

Nuccorini, Stefania (1994): On dictionary misuses. In: Martin, Willy, et al. (eds.): *Proceedings of the 6th EURALEX international congress*. Amsterdam: Free University, 586–507.

Nuccorini, Stefania (2009): On Italian bilingual and specialised dictionaries. In: Bruti, Silvia/Cella, Roberta/Foschi Albert, Marina (eds.): *Perspectives on lexicography in Italy and Europe*. Newcastle: Cambridge Scholars Publishing, 323–326.

Nuccorini, Stefania (2013): Italian EFL learners' collocational errors and English collocations dictionaries: a case study. In: *SILTA (Studi Italiani di linguistica teoretica e applicata)* 2, 223–245.

Nuccorini, Stefania (2017): Collocations in English-Italian bilingual dictionaries. In: De Giovanni, Cosimo (ed.): *Fraseologia e paremiologia: passato, presente, futuro*. Milano: Franco Angeli, 124–136.

Püschel, Ulrich (1994): Die deutsche Synonymendiskussion im 18. Jahrhundert. In: Hüllen, Werner (ed.): *The world in a list of words*. Berlin/Boston: De Gruyter, 255–264.

Siegel, Muffy E. A. (2007): What do you do with a dictionary: a study of undergraduate dictionary use. In: *Dictionaries* 28, 23–47.

Storjohann, Petra (2006): Kontextuelle Variabilität synonymer Relationen. In: *OPAL* 1, 1–25.

Storjohann, Petra (2012): Dornseiff – Der deutsche Wortschatz nach Sachgruppen. In: Haß-Zumkehr, Ulrike (ed.): *Große Lexika und Wörterbücher Europas. Europäische Enzyklopädien und Wörterbücher in historischen Porträts*. Berlin/Boston: De Gruyter, 477–490.

Stubbs, Michael (1995): Collocations and semantic profiles: on the cause of the trouble with quantitative studies. In: *Functions of language* 2:1, 23–55.

Viehweger, Dieter (1982): Semantiktheorie und praktische Lexikographie. In: *Zeitschrift für Germanistik* 3:2, 143–155.

Welker, Herbert A. (2010): *Dictionary use: a general survey of empirical studies*. Brasilia: Author's Edition.

Wiegand, Herbert E. (1976): Synonymie und ihre Bedeutung in der einsprachigen Lexikographie. In: *Jahrbuch 1975 des Instituts für deutsche Sprache: Probleme der Lexikologie und Lexikographie*. Düsseldorf: Schwann, 118–180.

Wiegand, Herbert E. (1994): Sind kumulative Synonymiken tatsächlich weitgehend unbrauch- bare Bestseller? In: Hüllen, Werner (ed.): *The world in a list of words*. Berlin/New York: De Gruyter, 17–31.

Wiegand, Herbert E., et al. (2020): *Wörterbuch zur Lexikographie und Wörterbuchforschung. Mit englischen Übersetzungen der Umtexte und Definitionen sowie Äquivalenten in neun Sprachen*, vol. 3: *I–U*. Berlin/Boston: De Gruyter.

Zock, Michael/Ferret, Olivier/Schwab, Didier (2010): Deliberate word access: an intuition, a roadmap and some preliminary empirical results. In: *International journal of speech technology* 13, 201–218.

6.2 Paper and online thesauri

Collins English thesaurus (2019). Birmingham: Harper Collins.

Merriam-Webster's thesaurus (2020). New York: Merriam Webster.

Oxford thesaurus of English (2009). Oxford: Oxford University Press.

6.3 Paper thesauri

Dornseiff, Franz 1934 = *Der deutsche Wortschatz nach Sachgruppen*. Erstausgabe. Berlin/Leipzig: De Gruyter.

Dornseiff, Franz 2020 = *Der deutsche Wortschatz nach Sachgruppen*. 9., überarbeitete und erweiterte Auflage. Berlin/Boston: De Gruyter.

Roget, Peter Mark 1852 = *Thesaurus of English words and phrases: classified and arranged so as to facilitate the expression and ideas and assist in literary composition*. London: Longman, Brown, Green, and Longmans.

Wehrle, Hugo/Eggers, Hans (1961): *Deutscher Wortschatz. Ein Wegweiser zum treffenden Austdruck*. Stuttgart: Ernst Klett Verlag.

6.4 Online tools and corpora

EnglishWeb 2021 = https://www.sketchengine.eu/ententen-english-corpus/ [last access: 15.03.2024].

Google Search = https://www.google.com/ [last access: 15.03.2024].

Google Translate = https://translate.google.com [last access: 15.03.2024].

Reverso Context = https://context.reverso.net/traduzione/ [last access: 15.03.2024].

Sketch Engine = https://www.sketchengine.eu/ [last access: 15.03.2024].

Wordreference = https://www.wordreference.com/it/ [last access: 15.03.2024].

6.5 Online dictionaries

Cambridge online dictionary = https://dictionary.cambridge.org [last access: 15.03.2024].
Collins online dictionary = https://www.collinsdictionary.com [last access: 15.03.2024].
Dictionary.com = http://dictionary.com [last access: 15.03.2024].
Duden.de = https://www.duden.de [last access: 15.03.2024].
DWDS = *Digitales Wörterbuch der deutschen Sprache* [https://www.dwds.de/d/woerterbuecher; last access: 15.03.2024].
GermaNet = https://uni-tuebingen.de/en/142806 [last access: 15.03.2024].
Langenscheidt = https://it.langenscheidt.com/italiano-tedesco/ [last access: 15.03.2024].
LDOCE = *Longman dictionary of contemporary English* [https://www.ldoceonline.com; last access: 15.03.2024].
Leo = https://www.leo.org/ [last access: 15.03.2024].
Merriam Webster = https://www.merriam-webster.com [last access: 15.03.2024].
OALD = *Oxford advanced learner's dictionary* [https://www.oxfordlearnersdictionaries.com [last access: 15.03.2024].
Oxford online dictionary of English = https://www.oed.com last access: 15.03.2024].
Pons = https://it.pons.com/traduzione [last access: 15.03.2024].
Wiktionary = https://www.wiktionary.org [last access: 15.03.2024].
Wordreference = https://www.wordreference.com/it/ [last access: 15.03.2024].
Wortschatzportal Leipzig = https://wortschatz.uni-leipzig.de/de [last access: 15.03.2024].

6.6 Online thesauri

Free Thesaurus = https://www.freethesaurus.com/ [last access: 15.03.2024].
Openthesaurus.de = https://www.openthesaurus.de [last access: 15.03.2024]
Power Thesaurus = https://www.powerthesaurus.org/ [last access: 15.03.2024].
Thesaurus.com = https://www.thesaurus.com/ [last access: 15.03.2024].
Woxikon = https://www.woxikon.de [last access: 15.03.2024].

Magdalena Zehetgruber und Johannes Schnitzer

Die Verwendung automatischer Übersetzungsprogramme im Wirtschaftssprachunterricht romanischer Sprachen

Abstract: Recent studies in the use of lexicographic devices by language learners have shown that, especially since the introduction of neural networks, online machine translation (OMT) programmes are predominantly used. At the Vienna University of Economics and Business, we conducted a survey as well as a performance test looking into the use of OMT in French, Italian and Spanish by students of International Management. The goal was to find out which programmes students find particularly helpful, how they judge their quality, how precisely they employ them, and which results they achieve. Students report and show making use of OMT particularly for short structures rather than for longer contextualised input. They also mention context-sensitive results and wish for better support and inclusion of how to use the programmes in class. The results reveal flaws of the different tools used but even more they emphasize the need of addressing the use of OMT tools in foreign language teaching.

Keywords: online machine translation, teaching for specific purposes, use of lexicographic resources, business communication (automatische Übersetzungsprogramme, Fachsprachenunterricht, Verwendung lexikographischer Hilfsmittel, Wirtschaftskommunikation)

1 Einleitung

Innerhalb weniger Jahre sind automatische Übersetzungsprogramme zu einem fixen Bestandteil unserer Kontakte mit anderen Sprachen geworden. Youtube-Clips und soziale Medien, E-Commerce und Unternehmenswebseiten, Konsular-Angelegenheiten und Krankenhauskommunikation – sowohl im privaten wie auch im beruflichen und öffentlichen Kontext sind maschinell generierte Übersetzungen kaum mehr wegzudenken (Dorst/

Magdalena Zehetgruber, Institut für Romanische Sprachen, Wirtschaftsuniversität Wien, Welthandelsplatz 1, A-1020 Wien. e-mail: magdalena.zehetgruber@wu.ac.at
Johannes Schnitzer, Institut für Romanische Sprachen, Wirtschaftsuniversität Wien, Welthandelsplatz 1, A-1020 Wien. e-mail: johannes.schnitzer@wu.ac.at

Valdez/ Bouman 2022: 49). Der Sprachunterricht, speziell der fachsprachliche Fremdsprachenunterricht, kommt nicht umhin, die Möglichkeiten und Grenzen der maschinellen Übersetzung auszuloten und, wo möglich, für sich nutzbar zu machen, will er nicht in überkommenen Mustern verharren. Ein Problem dabei ist die Geschwindigkeit, mit der sich diese Möglichkeiten und Grenzen permanent verschieben und die es nicht nur für Sprachlernende, sondern auch für Sprachlehrende schwierig macht, den Überblick darüber zu behalten, welche Instrumente gerade verfügbar sind, wie es um ihre Funktionalitäten bestellt ist, welche Einsatzmöglichkeiten sie jeweils sinnvollerweise bieten und, nicht zuletzt, wie sie tatsächlich im Unterrichtskontext, aber auch in der beruflichen Praxis eingesetzt werden.

Die vorliegende Studie wurde im Kontext des fachsprachlichen Unterrichts aus Französisch, Italienisch und Spanisch an der Wirtschaftsuniversität Wien durchgeführt, wo wir Studierende befähigen wollen, größere sprachliche und kommunikative Autonomie zu erlangen und selbständig (fremd-)sprachliche Herausforderungen zu meistern. Zu diesem Zweck muss sowohl der Umgang mit den heutzutage zur Verfügung stehenden Hilfsmitteln in den Unterricht inkludiert als auch die gesamte Didaktik an die neuen Möglichkeiten (Inhalte, Übungs- und Prüfungsformen etc.) angepasst werden. Dafür ist jedoch Voraussetzung zu wissen, wie Studierende mit automatischen Übersetzungsprogrammen umgehen und welche Schwierigkeiten dabei auftauchen (Briggs 2018; Dorst/Valdez/Bouman 2022; Ducar/Schocket 2018; Jolley/Maimone 2022).

Konkretes Ziel der Studie ist somit, auf empirischer Grundlage die folgenden Fragen zu beantworten:

– Welche Übersetzungsprogramme werden in welchem Ausmaß (auch im Vergleich zu anderen lexikographischen Hilfsmitteln) von unseren Studierenden verwendet?
– Wie groß ist die Zufriedenheit der Studierenden mit diesen Programmen und wie schätzen sie deren Qualität ein?
– Für welche Verwendungszwecke werden Übersetzungsprogramme herangezogen?
– Auf welche Art und Weise werden sie verwendet (Eingabestrategien)?
– Welche Resultate werden von den Studierenden erzielt?
– Welche Schwierigkeiten treten dabei auf und wie lassen sich diese erklären?

Die Beantwortung dieser Fragen soll es uns in der Folge ermöglichen, geeignete Erklärungen und Übungen zu erarbeiten, um die Studierenden zu kompetenten Benutzer:innen automatischer Übersetzungsprogramme zu machen, wobei es sowohl darum geht, die eigene, unmittelbare Verwendung zu verbessern, als auch darum, ein kritisches Bewusstsein für erwartbare Schwierigkeiten zu schaffen, also die sogenannte „machine translation literacy" (Bowker/Buitrago Ciro 2019) zu entwickeln und auszubauen.

2 Forschungsstand

Wie oben bereits ausgeführt, verläuft die Entwicklung von automatischen Übersetzungsprogrammen im Kontext des Ausbaus von Technologien auf Grundlage künstlicher Intelligenz in rasantem Tempo. Dies hat zur Folge, dass viele Untersuchungen, die vielleicht nur wenige Jahre alt sind, mittlerweile als obsolet angesehen werden können, weil sie sich in irgendeiner Art und Weise auf Technologien beziehen, die nicht mehr zum Einsatz kommen oder ihre Funktionsweise grundlegend verändert haben. Für den Bereich der automatischen Übersetzung kann das Jahr 2016 als technologischer Wendepunkt genannt werden. In diesem Jahr gingen die ersten Programme dazu über, Übersetzungen auf Basis neuronaler Netze zu erstellen, also rein auf Regeln und Statistik beruhende Verfahren durch lernfähige Algorithmen zu ersetzen und dadurch die Qualität der Übersetzungen um ein Vielfaches zu verbessern (Jolley/Maimone 2022; Wu et al. 2016). So führte etwa bei Google Translate die Umstellung auf dieses neue System 2016 zu einer Reduktion der Übersetzungsfehler um 55 bis 85 Prozent (Briggs 2018; Ducar/Schocket 2018: 780; Le/Schuster 2016). Diese Entwicklung steht im Zusammenhang mit Fortschritten im Bereich der künstlichen Intelligenz und mit *Machine* bzw. *Deep Learning* (Hellmich 2021; Torres-Simón/Pym 2021). Insbesondere für die Kommunikation im wirtschaftlichen und öffentlichen Bereich, die schnell und effizient erfolgen muss, stellt diese Verbesserung eine gute Lösung dar, denn auch wenn die Übersetzungen nicht an professionelle herankommen, so sind sie „fast, cheap and freely available" und für diese Zwecke gut genug, denn „we just need a general idea of what the text says" (Dorst/Valdez/Bouman 2022: 50).

Die Verbesserungen gegenüber Übersetzungen vor Einführung neuronaler Netze betreffen etwa wortwörtliche Übersetzungen und den Umgang mit polysemen Ausdrücken, Orthographiefehler in der Eingabe oder Ko-Referenzen. Verbessert hatte sich zudem der Umgang mit Eigennamen, die Wortwahl in Hinblick auf Kontextualität und Register, sowie grammatikalische Fehler, wenngleich in diesen Bereichen weiterhin einzelne Probleme bestehen (Ducar/Schocket 2018: 784). Problematisch bleiben bei den Übersetzungen zudem Dimensionen der Pragmatik und der kulturellen Erwartungshaltungen sowie Fragen des Sprachregisters, die wiederum mit dem sprachlichen und außersprachlichen Kontext sowie mit Konnotationen verbunden sind, was damit zusammenhängt, dass mithilfe automatischer Übersetzungsprogramme Text generiert wird, ohne dass das System per se Sprache lesen oder verarbeiten kann (Ducar/Schocket 2018: 785; Le/Schuster 2016). Auch regionale Variation stellt die Programme häufig vor Probleme: Während Output generell nur in dominanten Varietäten produziert wird, führt Input in weniger verbreiteten Varietäten teilweise zu Schwierigkeiten. Zudem beruhen neuronale Netze auf *large language* Modellen, die immer in gewisser Weise voreingenommen sind, z. B. in Hinblick auf Gender oder auch wirtschaftlich relevante Sprachen, das heißt, dass die Qualität der Übersetzung mit der Verbreitung der

jeweiligen Sprache steigt. Gibt es nur wenige Ressourcen in einer Sprache, d. h. handelt es sich um eine Sprache mit wenigen Sprecher:innen und einer geringen wirtschaftlichen Bedeutung, ist auch die Qualität der Übersetzung geringer (Klimova et al. 2023: 666). Ein möglichst effizienter Gebrauch der Übersetzungsprogramme, selbst auf Basis neuronaler Netze, setzt eine kritische Auseinandersetzung mit den Ergebnissen sowie ein Bewusstsein für ihre Grenzen und Schwachstellen voraus (Briggs 2018: 4–5).

Trotz der genannten Einschränkungen führte die Implementierung neuronaler Netze in den Übersetzungsprogrammen zu einem starken Umdenken in diesem Bereich. Drastisch drücken dies Maldonado González und Liébana González (2023: 134) aus: „... los sistemas de traducción que se usaban hace una década no se parecen en nada a los que se utilizan en la actualidad ....".[1] Diese starke Veränderung zeigt sich auch in den Outputs der Programme: Während man in der traditionellen satz- bzw. phrasen-basierten Methode maschinelle Übersetzungen an ihrer hohen Fehlerquote und schlechten Qualität erkennen konnte – die typischerweise ihrer Funktionsweise zugeschrieben wurden –, so wird heute die Verwendung der Programme etwa in Texten von Fremdsprachenlernenden daran ersichtlich, dass diese als „zu gut" für deren eigentliches Sprachniveau erscheinen (Carré et al. 2022: 189).

Wenn man nun die Zeitspanne berücksichtigt, die die Implementierung dieser Technologie, die Durchführung einer Studie und deren Veröffentlichung benötigen, kann man davon ausgehen, dass mehr als ca. fünf Jahre alte Arbeiten zur Funktionsweise und Verwendung von Übersetzungsprogrammen oftmals auf anderen Voraussetzungen beruhen. Dies muss auch bezüglich der soeben präsentierten Vorzüge und Schwachstellen der Programme berücksichtigt werden. Doch auch abgesehen von der Kurzlebigkeit der Forschungsergebnisse zeigt sich in Hinblick auf den Forschungsstand ein sehr heterogenes Bild: Die an sich schon eher geringe Zahl an Studien zum tatsächlichen Gebrauch von Übersetzungsprogrammen und nicht etwa reine Befragungen dazu (Hellmich 2021; Lee 2020: 158) erstreckt sich über ein breites Spektrum an Verwender:innen und, damit einhergehend, einen weiten Rahmen an konkreten Gebrauchssituationen. Es macht einen erheblichen Unterschied, ob die Proband:innengruppen z. B. aus Studierenden der Übersetzungswissenschaft (Torres-Simón/ Pym 2021) oder aus Schüler:innen der Sekundarstufe (Fredholm 2021) bestehen, oder ob z. B. juristische Fachtexte (Briva-Iglesias 2021) oder etwa wirtschaftswissenschaftliche Studierendentexte (Bowker 2020) das Übersetzungsobjekt sind. Zieht man dann noch in Betracht, dass mit Übersetzungsprogrammen je nach Sprachenkombination unterschiedliche Ergebnisse erzielt werden (Maldonado González/Liébana González 2023: 134), und naturgemäß die konkreten Studien spezifische Fragestellungen und Zielsetzungen anvisieren, ist klar, dass jeder Vergleich sehr sorgfältig die jeweiligen Parameter berücksichtigen muss.

---

[1] Die noch vor zehn Jahren verwendeten Übersetzungsprogramme sind mit denen, die heute in Gebrauch sind, keineswegs vergleichbar (Übersetzung der Autor:innen).

Zahlreiche Studien beschäftigen sich dabei mit den (wahrgenommenen) Vor- und Nachteilen der Übersetzungsprogramme, gleichzeitig aber auch mit den Konsequenzen ihres Einsatzes auf professionelle Praktiken ebenso wie Unterrichtssettings. In Hinblick auf die vorliegende Studie interessieren vor allem die Einschätzungen von Lernenden und Lehrenden im Kontext des Fremdsprachenunterrichts. Laut unterschiedlichen Forschungsarbeiten in diesem Bereich sehen die Nutzer:innen die Vorteile von automatischen Übersetzungsprogrammen einerseits in ihrer Kosteneffizienz, da es sich häufig um kostenlose Angebote oder aber kostengünstige Abos handelt. Andererseits punkten die Programme durch den geringen Zeitaufwand und die leichte Handhabung, die es vor allem auch Studierenden ermöglicht, relativ einfach bessere Ergebnisse – auch in Hinblick auf Noten – zu erzielen. Hinzu kommt, dass dem kritischen und reflektierten Einsatz von Übersetzungsprogrammen das Potential zugesprochen wird, metasprachliches Bewusstsein zu fördern, was wiederum Lehrende positiv hervorheben (Hellmich 2021; Jolley/Maimone 2022; Klekovkina/Denié-Higney 2022; Klimova et al. 2023; Tourmen/Hoffmann 2022).

Als Kritikpunkte am Einsatz von Übersetzungsprogrammen im (universitären) Fremdsprachenunterricht werden einerseits deren mangelhafte akademische Integrität (Ducar/Schocket 2018; Klekovkina/Denié-Higney 2022; Zemach 2021), andererseits der potentiell negative Effekt auf den tatsächlichen Lernprozess angeführt, da die Gefahr besteht, durch die einfache Verwendung der Programme nicht mehr wirklich etwas dazuzulernen, etwa in Hinblick auf grammatisches oder lexikalisches Wissen (Jolley/Maimone 2022: 34). Hinzu kommt, dass im Gebrauch der Programme keine echte Textarbeit passiert, insofern Texte auf Ebene der sprachlichen Korrektheit zwar durchaus einwandfrei erscheinen mögen, inhaltlich oder strukturell hingegen problematisch bleiben (Klimova et al. 2023: 666). Vor allem Sprachlernende mit niedrigem Sprachniveau können außerdem mitunter nicht überprüfen, ob die Übersetzung ihrer Idee entspricht und urteilen dementsprechend unwissend über die generierten Texte (Pellet/Myers 2022: 166).

Viele Studien beschäftigen sich weiters mit den Einstellungen und Wahrnehmungen von Lehrenden gegenüber dem Einsatz von automatischen Übersetzungsprogrammen im Unterricht bzw. in Unterrichtssituationen. Dabei zeigt sich eine eher negative Wahrnehmung bzw. größere Skepsis als von Lernendenseite, wobei einerseits die trotz zahlreicher Verbesserungen mangelhafte Qualität der Übersetzungen kritisiert, andererseits der Sorge vor zu großer Abhängigkeit von den Programmen Ausdruck verliehen wird. Interessanterweise zeigen Lehrende eine höhere Toleranz in Hinblick auf die Verwendung in rezeptiven Settings als etwa im produktiven Einsatz. Mitunter werden die Übersetzungsprogramme jedoch sogar als Bedrohung wahrgenommen oder beschrieben (Ducar/Schocket 2018; Hellmich 2021; Klimova et al. 2023; Paterson 2023: 3; Tourmen/Hoffmann 2022).

Trotz dieser bereits vorliegenden Untersuchungen insbesondere im Bereich der Befragung von Lernenden und Lehrenden herrscht in Hinblick auf den konkreten Einsatz und Gebrauch dieser Programme im universitären Fremdsprachenunterricht

noch erhöhter Forschungsbedarf, denn automatische Übersetzung „remains broadly unaddressed in most higher education policy, curricula, and practice" (Paterson 2023: 2). Auch Dorst/Valdez/Bouman (2022: 50) unterstreichen diese Forschungslücke: „Yet we know surprisingly little about how students (or staff for that matter) actually use MT: what they do with it, when and why they use it, and why they opt for MT rather than other solutions". Umso deutlicher zeigt sich diese Lücke im Kontext des Fachsprachenunterrichts (Dorst/Valdez/Bouman 2022: 51). Dabei stellt sich die zentrale Frage, welche Haltung der Fremdsprachenunterricht zu automatischer Übersetzung einnehmen soll. Die Qualität dieser Programme verbessert sich wie dargestellt laufend, der Gebrauch vonseiten der Lernenden, aber auch generell im professionellen sowie privaten Kontext, ist Realität und sollte dementsprechend auch nicht verleugnet werden. Insofern gilt es als unumgänglich auch Trainings für Lernende anzubieten, um Plagiarismus vorzubeugen und bessere Resultate zu erzielen. Dafür ist es jedoch notwendig, die Funktionsweise der Programme mit ihren Stärken und Schwächen mehr oder minder tagesaktuell zu kennen und gezielt im Unterricht darauf einzugehen, gleichzeitig auch zu verstehen, wie Studierende konkret mit den Programmen arbeiten (Briggs 2018: 4; Carré et al. 2022: 190–191; Ducar/Schocket 2018: 780–787). Es geht im Unterricht nicht zuletzt also auch darum, von einem „detect-react-prevent mindset" zu einem „integrate-educate-model approach" überzugehen (Jolley/Maimone 2022: 39).

Die in der Folge dargestellte Studie macht es sich zur Aufgabe, einen Beitrag zur Füllung der soeben beschriebenen Forschungslücke zu leisten und aus den Erkenntnissen zum Gebrauch automatischer Übersetzungsprogramme von Wirtschaftsstudierenden Implikationen für den universitären Fachsprachenunterricht abzuleiten.

3 Erhebung

Die vorliegende Untersuchung wurde an der Wirtschaftsuniversität Wien durchgeführt, an der ausschließlich wirtschaftlich orientierte Studien angeboten werden. Fremdsprachen sind dabei insbesondere in den Studiengang „Internationale Betriebswirtschaftslehre" integriert, in dem neben Englisch der Erwerb einer weiteren Sprache verpflichtend ist. Dementsprechend rekrutiert sich der weitaus überwiegende Teil der Studierenden romanischer Sprachen – angeboten werden Französisch, Italienisch und Spanisch – aus diesem Studiengang. Als Eingangsvoraussetzung gilt für diese – sowie für Russisch – die Beherrschung auf Niveau A2+ bzw. B1 des Gemeinsamen Europäischen Referenzrahmens für Sprachen, wobei die tatsächliche Sprachbeherrschung der Studierenden erheblich variiert. In insgesamt vier zweistündigen Lehrveranstaltungen wird das allgemeine Sprachniveau der Studierenden auf B2-Niveau angehoben und eine Einführung in relevante Kapitel der fremdsprachlichen Wirtschaftskommunikation (Bewerbungsprozesse, Unternehmenspräsentationen, Warenverkehr

etc.) gegeben. In diesem Kontext ist die vorliegende Studie angesiedelt, wobei sich die Untersuchung methodisch in zwei Teile gliedert:

– eine Online-Umfrage zur Selbsteinschätzung der Studierenden in Hinblick auf deren Verwendung und Wahrnehmung von automatischen Übersetzungsprogrammen
– eine praktische Aufgabenstellung zur Untersuchung des tatsächlichen Gebrauchs der Programme von Studierenden

Die Kombination dieser beiden methodischen Vorgangsweisen sollte garantieren, sowohl Kenntnis und Einstellungen der Studierenden als auch deren konkreten Umgang mit Übersetzungsprogrammen in einer sehr realitätsnahen und ihnen bekannten sowie relevanten Kommunikationssituation beleuchten zu können.

3.1 Online-Umfrage

Der Online-Fragebogen wurde mit dem Umfrage-Tool LimeSurvey erstellt und richtete sich an die Studierenden der Lehrveranstaltungen aus Fremdsprachlicher Wirtschaftskommunikation (WIKO) Französisch, Italienisch und Spanisch im Sommersemester 2022. Von insgesamt 381 angemeldeten Studierenden in diesen Kursen nahmen 150, das entspricht etwa 39%, an der etwa 15-minütigen Befragung in deutscher Sprache teil. Von diesen Studierenden gaben 63% weibliches, 37% männliches Geschlecht an, im Median und im Durchschnitt waren die Teilnehmenden 22 Jahre alt, mit einer Standardabweichung von 2,3 Jahren. Die Studierenden verteilten sich dabei wie folgt auf die drei unterrichteten romanischen Sprachen: Französisch: 57, Italienisch: 45, Spanisch: 48.

Der Fragebogen umfasste 21 Fragen, die in sechs thematische Blöcke eingeteilt werden können (s. Tabelle 1). Es handelte sich überwiegend um Fragen in geschlossenem Format, einzelne Fragen hatten offenen Charakter und sollten damit vor allem auch subjektivere Einblicke ermöglichen. Der vollständige Fragebogen findet sich im Anhang (7.1).

Tabelle 1: Themenblöcke und Fragen der Online-Umfrage.

Themenblock	Fragen
Soziodemographische Daten	Fragen 2–6[2]
Kenntnis von Übersetzungsprogrammen	Frage 7
Verwendete Programme und Häufigkeit	Fragen 8–11, 15
Konkrete Einsatzsituationen	Fragen 12–14
Verwendungsstrategien	Fragen 16–17
Bewertung von Gebrauch und Qualität	Fragen 18–22

---

2 Bei Frage 1 handelte es sich um die Datenschutzerklärung, die aus Platzgründen ebenso wie der Einleitungstext nicht abgedruckt wurde.

Die Auswertung und die Analyse der im Fragebogen ermittelten Daten erfolgte für die geschlossenen Fragenformate mittels deskriptiver Statistik, aufgrund der geringen Unterschiede zwischen den Teilgruppen sowie der Forschungsfragen erwiesen sich keine inferenzstatistischen Berechnungen als notwendig. Offene Fragen wurden mittels Inhaltsanalyse kategorisiert und kodiert und, wo möglich, auch quantitativ ausgewertet.

3.2 Praktische Aufgabenstellung

In einem zweiten Schritt wurden ebenfalls Studierende der Lehrveranstaltungen in Fremdsprachlicher Wirtschaftskommunikation Französisch, Italienisch und Spanisch aus dem Sommersemester 2022 sowie dem Wintersemester 2022/23 gebeten, in einem Test-Setting eine praktische Aufgabenstellung zu bearbeiten. Voraussetzung für die Teilnahme war hier Erstsprache Deutsch oder allenfalls eine ausgezeichnete Beherrschung des Deutschen. Nicht alle Teilnehmenden an dieser zweiten Phase des Projekts hatten zuvor an der Fragebogenuntersuchung teilgenommen. Aus Datenschutzgründen war es auch nicht möglich, Ergebnisse aus den Fragebogen individuell mit dem Abschneiden im Test in Beziehung zu setzen.

Die praktische Aufgabenstellung bestand aus dem Verfassen eines Bewerbungsschreibens für einen Praktikumsplatz in Frankreich/Italien/Spanien auf Basis einer fiktiven, auf Deutsch verfassten Personenbeschreibung, die grosso modo derjenigen eines prototypischen Studierenden der Wirtschaftsuniversität entsprechen sollte (s. 7.2). Die Aufgabenstellung beinhaltete Begriffe, die als fachspezifisch gelten können und bei denen vorherzusehen war, dass Studierende auf die Unterstützung von lexikographischen Hilfsmitteln angewiesen sein würden. Den insgesamt 90 Studierenden (30 pro Untersuchungssprache) wurde an einem mit einem Rechner ausgestatteten Arbeitsplatz des Instituts die entsprechende Angabe in Papierform zur Verfügung gestellt, mit der Bitte, das Schreiben in einem Textverarbeitungsprogramm zu verfassen. Alle am verwendeten Computer ausgeführten Klicks wurden mit Hilfe der in Windows integrierten Schrittaufzeichnung festgehalten, worüber die Teilnehmenden zuvor im Zuge der Einverständniserklärung in Kenntnis gesetzt worden waren. Die Studierenden hatten unbeschränkt Zeit zur Verfügung und konnten, abgesehen von elektronischen Hilfsmitteln, auch andere Behelfe verwenden, wobei sie dies im Dokument anmerken sollten. Einige Studierende verwendeten dementsprechend das Skriptum der Lehrveranstaltung, in der auch Bewerbungsschreiben verfasst wurden und das daher Beispieltexte sowie geeignete Phrasen und Ausdrücke dafür beinhaltete.

Für die Analyse wurden einerseits die in diesem Setting erstellten Bewerbungsschreiben, andererseits die durch die Schrittaufzeichnung ermöglichte Dokumentation des Produktionsprozesses herangezogen. Dabei wurden die erfolgten Suchvorgänge, die verwendeten Hilfsmittel bzw. Ressourcen sowie deren Einsatzhäufigkeit mit den erzielten Ergebnissen in Verbindung gebracht und analysiert. In der Auswertung galt

das Hauptaugenmerk 22 unterschiedlichen Syntagmen, die aufgrund der Aufgabenstellung in allen Bewerbungsschreiben enthalten sein sollten und damit Vergleichbarkeit gewährleisteten. Die Bewertung der Richtigkeit der verfassten Texte erfolgte pro Sprache unabhängig von zwei Evaluator:innen, ebenso die Klassifizierung der Suchvorgänge sowie der entstandenen Fehler. Suchvorgänge umfassten in der Analyse jegliches Nutzen einer Online-Ressource, die die Schrittaufzeichnung dokumentierte. Die so ermittelten Daten wurden in der Folge kodiert, quantifiziert und quantitativ sowie qualitativ ausgewertet.

4 Ergebnisse

Im Folgenden werden die Ergebnisse aus der Befragung (n=150) und dem durchgeführten Test (n=90) nach Fragestellungen geordnet dargestellt. Damit sollen soweit möglich der unmittelbare Bezug auf die jeweiligen Ergebnisse hergestellt und gleichzeitig Parallelitäten, eventuell aber auch Widersprüche, im Vergleich aufgezeigt werden.

4.1 Allgemeines

Um Rückschlüsse auf sprachenspezifische Unterschiede zu ermöglichen, enthielt der Fragebogen drei Fragen zum sprachlichen Hintergrund der Teilnehmenden sowie zu den besuchten Lehrveranstaltungen (s. Fragen 4–6, 7.1). Von den befragten Studierenden hatten 83% Deutsch als Erstsprache, mehrmals vertretene weitere Erstsprachen waren Italienisch, Spanisch und Ungarisch mit jeweils sechs Sprecher:innen, Luxemburgisch (5), Englisch und Serbisch (4) sowie Französisch (3). 17% der Studierenden gaben an, mehr als eine Erstsprache zu sprechen. Zusätzlich zur Erstsprache wurde auch das Sprachniveau in den gewählten Unterrichtssprachen erhoben. Von den Personen, die Englisch nicht als L1 sprachen, verfügten 80% nach eigenen Angaben über sehr gute, sowie 16% über fortgeschrittene Englischkenntnisse. Von den Französisch-Studierenden mit nicht-französischer Erstsprache (55) gaben 14% sehr gute Kenntnisse, 76% fortgeschrittene Kenntnisse und 5% Grundkenntnisse an. Von den Italienisch- und Spanisch-Studierenden verfügten jeweils 13% über sehr gute Kenntnisse, 67 % (Italienisch) bzw. 66% (Spanisch) über fortgeschrittene Kenntnisse sowie jeweils 13% über Grundkenntnisse. Hinzu kamen auch hier einzelne Teilnehmende mit L1-Niveau in den unterrichteten Sprachen. Teilweise beherrschten die Studierenden auch andere romanische Sprachen auf unterschiedlichen Niveaus, diese erwiesen sich jedoch in der Auswertung als nicht relevant, weshalb sie in der Folge – ebenso wie die Variablen Geschlecht, Alter, Erstsprache und die zur Zeit der Datenerhebung besuchte Lehrveranstaltung – nicht weiter berücksichtigt wurden.

Die 90 Studierenden, die die praktische Aufgabenstellung bearbeiteten, verfassten jeweils ein Bewerbungsschreiben in der für die Textsorte passenden Länge und Form. Während des Schreibprozesses griffen sie wie vermutet – und auch empfohlen – auf die ihnen zur Verfügung stehenden Hilfsmittel zurück, und zwar in 922 Fällen. Dabei realisierten sie in Summe 1545 Suchvorgänge, die sich etwas ungleichmäßig auf die drei Sprachen verteilten. Während Französisch und Spanisch relativ ausgeglichene Werte erzielten (597 Suchvorgänge Französisch, 651 Spanisch), belief sich diese Zahl für Italienisch auf nur ca. die Hälfte (297 Suchvorgänge). Die Teilnehmenden zeigten jedoch sehr unterschiedliches Suchverhalten, was sich auch aus der Spannweite der Suchvorgänge pro Person (0-40) ablesen lässt. Im Durchschnitt führten Italienisch-Studierende nur zehn Suchvorgänge durch, Französisch-Studierende 20 und Spanisch-Studierende 22.

Von dieser Gesamtzahl an 1545 Suchvorgängen entfielen 861, das sind 56%, auf Suchen mithilfe von automatischen Übersetzungsprogrammen, die sich somit als meistverwendetes Hilfsmittel in allen drei Sprachen herausstellten, wobei diese in Französisch 62%, in Italienisch 66%, in Spanisch allerdings nur 45% aller Suchvorgänge ausmachten – eine Diskrepanz, für die bis dato wie auch für die in Summe wesentlich geringere Anzahl an Suchvorgängen im Italienischen keine Erklärung gefunden wurde.

Schwierig zu interpretieren waren im Datenmaterial Suchen mittels allgemeiner Suchmaschinen, insbesondere Google und Microsoft Bing. Bei Suchvorgängen damit werden häufig automatisch Ergebnisse aus den jeweiligen Übersetzungstools (Google Translate; Microsoft/Bing Translator) geliefert. Da der Übersetzer jedoch nicht direkt angewählt oder aufgerufen wurde, wurden diese Ergebnisse nicht als Suchvorgänge mit Übersetzungsprogramm gewertet, wenngleich das erzielte Ergebnis aus einem Übersetzungsprogramm stammt. Ebenso schwierig einzuordnen waren Suchvorgänge in Online-Wörterbüchern, die sowohl eine (Kontext-)Wörterbuch- als auch eine Übersetzungsfunktion anbieten (z. B. Pons, Reverso). Hier wurde danach codiert, welche Funktion vorherrschend genutzt und auch bewusst aufgerufen wurde. In Tabelle 2 wird ersichtlich, welche Hilfsmittel mit welcher Häufigkeit genutzt wurden.

Tabelle 2: Verwendete Ressourcen nach Kategorie.

Art der Hilfsmittel	Anzahl der Suchvorgänge	Anteil an allen Suchvorgängen in %
Übersetzungsprogramm	861	55,7
Online-Wörterbuch	388	25,1
Kontextwörterbuch	136	8,8
Suchmaschine	122	7,8
Webseite	33	2,1
KI	2	0,1

Da es in der Studie nicht zuletzt darum gehen sollte, Implikationen für den Unterricht abzuleiten, war es von Interesse, die Einschätzung der Studierenden zur aktuellen Unterrichtsgestaltung abzufragen. Pauschal gesehen scheinen Übersetzungsprogramme im Unterricht keine große Rolle zu spielen, weder in positiver noch in negativer Hinsicht, was die niedrigen Zustimmungswerte zu den in Frage 19 unter anderem zu beurteilenden Aussagen „Im Unterricht wird die Verwendung dieser Programme thematisiert." (23%) bzw. „Im Unterricht wird von der Verwendung dieser Programme abgeraten" (9%) veranschaulichen. In dieser Frage zeigten sich auch keine Unterschiede zwischen den drei unterrichteten Sprachen, die die festgestellten Diskrepanzen in der Häufigkeit der Verwendung von Hilfsmitteln generell bzw. von Übersetzungsprogrammen im Speziellen erklären würden.

Nicht zuletzt gilt es vor Präsentation der Einzelergebnisse zu erwähnen, dass drei Studierende im Fragebogen angaben, überhaupt keine Übersetzungsprogramme zu verwenden, auch im Test finden sich Belege für Studierende, die entweder ohne jegliche Online-Hilfsmittel auskommen oder aber ausschließlich auf Hilfsmittel zurückgreifen, bei denen es sich nicht um Übersetzungsprogramme handelt.

4.2 Kenntnis und Verwendung von Übersetzungsprogrammen

Um die Studierenden nicht von vornherein in eine bestimmte Richtung zu lenken, wurden sie im Fragebogen zunächst danach gefragt, welche Übersetzungsprogramme sie überhaupt kennen (s. Frage 7, 7.1). Dabei nannten sie vorwiegend Google Translate (112) und DeepL (105), unter den anderen Nennungen fanden sich nur wenige, die explizit Übersetzer betrafen, nämlich Pons Textübersetzer (4), Apple/iPhone Translator (3), Bing/Microsoft Translator (2) sowie Langenscheidt Textübersetzer (1). Die anderen Antworten betrafen andere Online-Ressourcen, in erster Linie „klassische" Online-Wörterbücher wie Pons (80), Leo (67) oder Dict (24), aber auch Kontextwörterbücher wie Linguee (39), Reverso (17) oder Wordreference (2). Daraus ist bereits ersichtlich, dass Studierende nicht scharf zwischen Übersetzungsprogrammen und anderen im Internet zur Verfügung stehenden lexikographischen Hilfsmitteln unterscheiden.

In den folgenden Fragen (8–11, s. 7.1) wurden die Studierenden zur Häufigkeit der Verwendung unterschiedlicher Programme sowohl allgemein als auch im Unterrichtskontext befragt. Dabei wurde DeepL als am häufigsten verwendetes Programm genannt, bei gelegentlicher Verwendung erzielten jedoch Google Translate und der Pons Textübersetzer den gleichen Wert (s. Abbildung 1). DeepL scheint dementsprechend bei den Studierenden besonders positive Resonanz zu finden, was sich auch in manchen Antworten auf offene Fragen zeigte. Somit beurteilten Sie ähnlich wie in anderen Studien dieses Programm besser als andere (vgl. Zemach 2021).
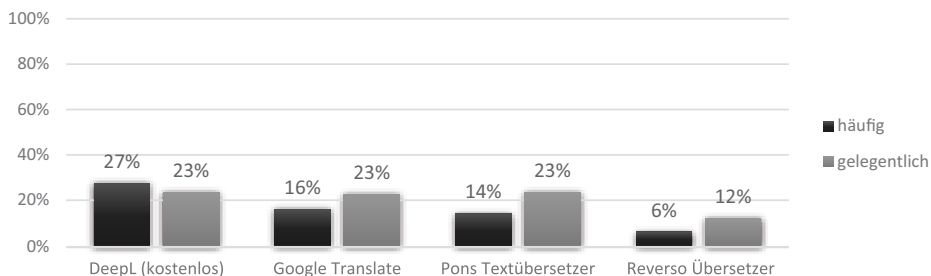
Abbildung 1: Häufigkeit der Verwendung von Übersetzungsprogrammen.

In Summe zeigte sich in diesen Fragen wiederum, dass Studierende nicht klar zwischen Übersetzungsprogrammen und anderen lexikographischen Hilfsmitteln unterscheiden, da bei den offenen Fragen 9 und 11, die als Ergänzung zu den vorangehenden geschlossenen Fragen dienten, insbesondere Leo, Linguee und Dict genannt wurden.

Generell scheinen andere Hilfsmittel nach Aussage der Studierenden durchaus beliebt zu sein, immerhin gaben auf die Frage dazu (15, s. 7.1) 74% der Befragten an, Suchmaschinen zu verwenden, 63% Online-Wörterbücher und 18% Enzyklopädien wie etwa Wikipedia. Abgesehen von diesen Online-Ressourcen wird gerne – von 54% – auf die Hilfe von Kolleg:innen, Freund:innen oder Familie zurückgegriffen, wohingegen nur knapp 5% noch Printwörterbücher zur Hand nehmen (s. Abbildung 2).
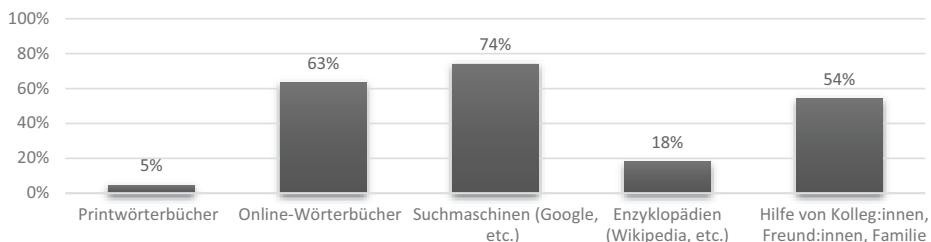

Abbildung 2: Nutzung anderer Ressourcen.

In der praktischen Aufgabenstellung wurde von den Studierenden eindeutig das Übersetzungsprogramm DeepL am meisten verwendet. So wurde es in 44% aller Suchvorgänge bzw. in 79% aller in Übersetzungsprogrammen erfolgten Suchvorgänge benutzt. Die weiter oben bereits dargestellte ungleiche Verteilung auf die unterschiedlichen Sprachen zeigt sich auch hier: 52% für Französisch, 57% für Italienisch, 30% für Spanisch. Ganz im Gegensatz zum hochfrequenten DeepL rangiert Google Translate bei nur 8% aller bzw. 14% der Übersetzer-Suchvorgänge und nur von peripherer Bedeutung waren die Übersetzungsprogramme von Microsoft und Pons (jeweils 2% der Suchvorgänge bzw. 3–4% innerhalb der Übersetzungsprogramme) (s. Tabelle 3). Die Testdaten widersprechen

daher den Ergebnissen aus der Umfrage zumindest zum Teil. Zur Erklärung dieser Differenz können nur Vermutungen angestellt werden, einzelne Gespräche mit Studierenden legen jedoch nahe, dass man für konzentriertes Arbeiten eher ein gezieltes Programm verwendet als für das schnelle Nachschlagen eines Wortes, das man gleich in der vielleicht ohnedies geöffneten oder sogar als Startseite festgelegten Suchmaschine erledigt.

Tabelle 3: Verwendete Übersetzungsprogramme.

Übersetzungsprogramm	Anzahl der Suchvorgänge	Anteil an allen Suchvorgängen in %	Anteil an Suchvorgängen mit Übersetzungsprogrammen in %
DeepL	678	43,8	78,7
Google Translate	120	7,8	13,9
Microsoft Translator	37	2,4	4,3
Pons Textübersetzer	26	1,7	3,0
Bab.la	2	0,1	0,2

Weiters fällt auf, dass bei der Frage danach, welche Programme überhaupt bekannt sind (Frage 7, s. oben), nur zwei Nennungen von Bing/Microsoft Translator erfolgten, in der konkreten Aufgabenstellung hingegen dennoch in Summe 37-mal darauf zurückgegriffen wurde. Dies lässt sich vermutlich durch die Verwendung von Microsoft Edge als Standardbrowser auf den Geräten der Universität erklären. Durch das Aufrufen des Browsers fungiert als Suchmaschine automatisch Microsoft Bing, das wiederum bei sprachlichen Anfragen den Microsoft Translator nutzt, wodurch Studierende in der Folge diesen auch gezielt verwenden. Es lässt sich daraus ableiten, dass der Gebrauch bestimmter Online-Übersetzungsprogramme nicht immer bewusst verläuft, sondern vieles von den Studierenden eigentlich dem Zufall überlassen wird bzw. auf die Ergebnisse, die das Internet generiert, vertraut wird.

4.3 Bewertung der Qualität von Übersetzungsprogrammen

Was die Qualität der verwendeten Programme betrifft, war die Einschätzung der Befragten zum überwiegenden Teil positiv (s. Frage 20, 7.1). Auf einer fünfstufigen Skala nach dem österreichischen Schulnotensystem bewerteten 69% die Qualität der Programme mit „gut" und 9% sogar mit „sehr gut", während nur 22 % eine schlechtere Benotung vornahmen (s. Abbildung 3). Gerade 1% erachtete die Qualität der Übersetzungsprogramme als unzureichend, also noch weniger als die 2% der Teilnehmenden, die angaben, überhaupt keine Übersetzungsprogramme zu verwenden.
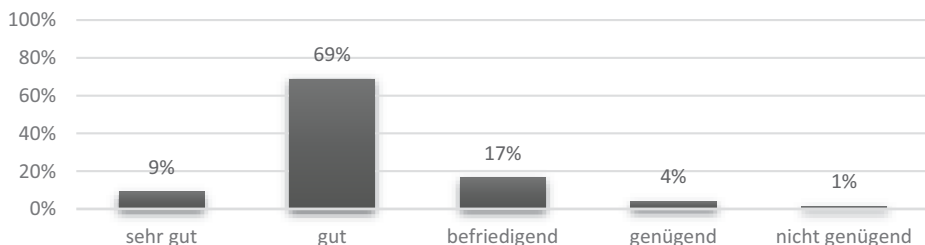
Abbildung 3: Bewertung der Qualität von Übersetzungsprogrammen.

Darüber hinaus äußerten 84% große oder sehr große Zustimmung zur Aussage „Übersetzungsprogramme sind für mich ein wichtiges Hilfsmittel" und immerhin 68% hielten den Großteil der Übersetzungen für zutreffend, während nur 38% meinten, sie hätten bereits einmal schlechte Erfahrungen mit den Programmen gemacht (s. Frage 18, 7.1).

Als besonders positiv hervorgehoben wurde in den offenen Fragen (21+22, s. 7.1), neben der allgemeinen Qualität der Übersetzungen (n=15), in Einklang mit den auch in der Literatur angeführten Pro-Argumenten, der Aspekt der Geschwindigkeit des Suchvorgangs (n=29) (Jolley/Maimone 2022; Hellmich 2021). Zudem sahen die Studierenden in der Verwendung von Übersetzungsprogrammen die Möglichkeit, ihren Wortschatz zu erweitern (n=30) und nahmen die Programme generell als Hilfe wahr (n=23). Als Kritik und Schwachpunkte der Übersetzungsprogramme wurde im Fragebogen die mangelnde Kontextadäquatheit der Übersetzungen (n=39) sowie ihre Fehlerhaftig- bzw. -anfälligkeit (n=29) angegeben.

An dieser Stelle muss jedoch auch auf eine Widersprüchlichkeit in den Ergebnissen hingewiesen werden: Einerseits zeigten die Studierenden laut Umfrage wie beschrieben großes Vertrauen in die Programme und ihre Ergebnisse, auch in der praktischen Aufgabestellung wurden zumindest teilweise Vorschläge der Übersetzungsprogramme ohne Hinterfragen oder zusätzliche Kontrolle übernommen. Zumindest ein Drittel der Befragten hielt außerdem die Qualität der automatisch übersetzten Texte für besser als Texte, die sie selbst produzieren könnten (s. Frage 18). Andererseits wurden jedoch Ergebnisse aus Übersetzungsprogrammen im Test sehr wohl verändert und nach Ermessen der Studierenden angepasst, was mitunter zu schlechteren Ergebnissen bzw. unnötigen Fehlern führte (s. auch 4.6 bzw. 5.2). Folglich spielt mangelndes Vertrauen sowohl in die eigenen Fähigkeiten als auch in die Qualität der Programme und ihrer Outputs eine Rolle, was sich auch schon in anderen Studien zeigte (Briggs 2018: 11). Über mangelhafte akademische Integrität der Verwendung von Übersetzungsprogrammen machten sich hingegen nur wenige Studierende Gedanken, immerhin hielten 72% die Aussage „Für mich ist die Verwendung von Übersetzungsprogrammen für Hausübungen, Abgaben oder Prüfungen eine Form von Schummeln" für (eher) nicht zutreffend (s. Frage 19).

4.4 Verwendungszwecke

Wenig überraschend ist der Haupteinsatzbereich der Übersetzungsprogramme bei Studierenden die schriftliche Produktion, was sich auch mit Ergebnissen aus anderen Studien deckt (Jolley/Maimone 2022: 29) (s. Frage 14, 7.1). Hausaufgaben, Abschlussarbeiten, E-Mails, etc. wurden von 89% der Studierenden als typische Verwendungssituationen genannt. 64% der Teilnehmenden verwenden Übersetzungsprogramme auch in der schriftlichen Rezeption, also um das Leseverständnis zu sichern oder Recherchen in unterschiedlichen Sprachen durchführen zu können. Wenngleich dies zunächst etwas überraschend wirken mag, so decken sich diese Angaben mit den Antworten zur Frage der Übersetzungsrichtung (s. Frage 12, 7.1), wo 60% der Befragten angaben, Übersetzungsprogramme in beide Richtungen zu verwenden und 43% meinten, aus der Zielsprache einer LV auch in die Erstsprache zu übersetzen. Insbesondere Studierende mit nicht-deutscher Erstsprache führten ein mehrsprachiges Suchverhalten an. 20% der Studierenden meinten zudem, Übersetzungsprogramme auch in mündlicher Produktion zu verwenden, wobei konkretere Angaben bzw. Anhaltspunkte zum tatsächlichen Einsatz fehlten.

Da das in der Studie verwendete Test-Design als Einsatzbereich die schriftliche Produktion vorgab, konnten die tatsächlichen Einsatzszenarien in der praktischen Aufgabenstellung darüberhinausgehend nicht überprüft oder evaluiert werden. In einigen Fällen benutzten die Teilnehmenden die Übersetzungsprogramme für die gegebene Aufgabenstellung auch in rezeptiver Form, indem sie ihre eigene Produktion rückübersetzen ließen oder aber einzelne Phrasen, die sie selbst konstruiert hatten, von der Zielsprache ins Deutsche übersetzten, z. B. *Ma motivation principale pour poster à DILOTE est que je _ avenir professionnel. (F18 – DeepL FR-DE)* bzw. *me especializo en la gestión que se orienta al comportamiento (S9 – DeepL ES-DE).*

4.5 Verwendungsweisen

Eine weitere Frage, die sowohl in den Fragebogen inkludiert als auch im Test überprüft wurde, ist jene nach der hauptsächlichen Verwendungsweise von Übersetzungsprogrammen im Sinne der Eingabestrategien (s. Frage 13, 7.1). Im Fragebogen zeichnete sich eine eindeutige Tendenz zur bevorzugten Eingabe einfacher sprachlicher Einheiten, insbesondere einzelner Wörter, ab. Die Zahlen sinken mit zunehmender Länge der sprachlichen Einheiten, insbesondere ganze Absätze oder gar Texte werden von Studierenden nur selten auf einmal übersetzt, wie aus Abbildung 4 hervorgeht:
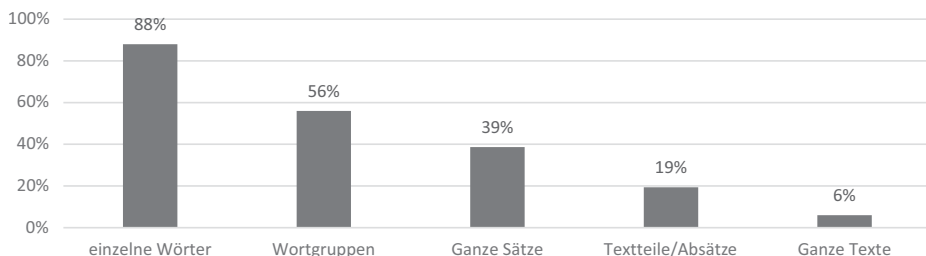
Abbildung 4: Eingabestrategien.

Dieses sehr eindeutige Ergebnis aus der Selbsteinschätzung der Studierenden fand auch im Test eine Bestätigung. In der Bearbeitung der praktischen Aufgabenstellung bevorzugten Studierende die Eingabe einzelner Wörter oder von Wortgruppen. Bereits ganze Sätze wurden deutlich seltener gesucht, wobei sich hier ein Unterschied in der Verwendung der einzelnen Programme zeigte. Während mit DeepL beinahe gleich oft nach ganzen Sätzen wie nach Wörtern/Wortgruppen gesucht wurde, diente Google Translate eher der Suche von Einzelwörtern oder maximal Wortgruppen. Dies lässt sich wiederum in Verbindung bringen mit den Angaben der Studierenden zum allgemeinen Nutzungsverhalten. So dürfte Google Translate zwar ähnliche Beliebtheit wie DeepL genießen (s. Abschnitt 4.2), wird jedoch nicht auf dieselbe Art und Weise eingesetzt. Den Angaben im Fragebogen entsprechend gaben auch nur einzelne Studierende ganze Absätze oder gar ganze Texte – zumeist bereits vorhandene Bewerbungsschreiben auf Deutsch oder auch Englisch – in DeepL ein. Auch wenn dies zum Teil auf die von den Studierenden verwendeten Gratisversionen der Übersetzungsprogramme zurückzuführen ist, wo nur Texte aus maximal 1500 Zeichen in einem Schritt übersetzt werden können, so deckt sich diese Feststellung mit anderen Studien (Dorst/Valdez/Bouman 2022: 58; Jolley/Maimone 2022: 30; Klekovkina/Denié-Higney 2022) und hatte auch Konsequenzen auf die erzielten Resultate (s. Abschnitt 4.6).
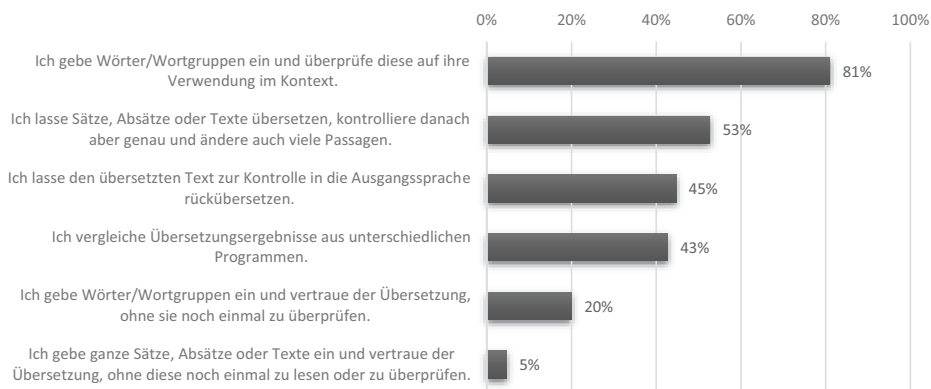

Abbildung 5: Zustimmung zu Verwendungsstrategien.

Weiters wurden die Studierenden danach gefragt, wie sie mit den Suchresultaten umgehen und wie viel Verantwortung sie in Hinblick auf die Übersetzungen übernehmen. Wie in Abbildung 5 ersichtlich, bestätigte sich auch in Frage 18, dass kaum ganze Texte übersetzt werden. Hier zeigte sich jedoch zusätzlich, dass diese zumeist auch nicht unkritisch ohne Überprüfung übernommen werden, nur 5% stimmten der Aussage „Ich gebe ganze Sätze, Absätze oder Texte ein und vertraue der Übersetzung, ohne diese noch einmal zu lesen oder zu überprüfen" (eher) zu. Auch bei kleineren Einheiten gaben Studierende an, die Ergebnisse eher noch einmal zu überprüfen, wenngleich hier schon 20% der Befragten auch ohne Kontrolle den Programmen vertrauen. Am beliebtesten scheint unter den Studierenden die Eingabe von Wörtern bzw. Wortgruppen zu sein, die dann noch auf ihre Verwendung im Kontext überprüft werden. Zumindest etwas mehr als die Hälfte hielt dies auch in Hinblick auf ganze Sätze, Absätze oder Texte für sinnvoll. Zu einer Rückübersetzung in die Ausgangsprache, um den Inhalt zu kontrollieren, tendierten immerhin noch 45% der Teilnehmenden. Diese Strategie fand, wie in Abschnitt 4.4 dargestellt, in der praktischen Aufgabenstellung Bestätigung. Ebenso etwas mehr als 40% der Studierenden gaben an, zur Qualitätssicherung die Ergebnisse aus unterschiedlichen Programmen zu vergleichen.

4.6 Erzielte Resultate

Um die Studierendentexte unter dem Gesichtspunkt der möglichen Verwendung von Übersetzungsprogrammen analysieren zu können, wurde zunächst die Qualität von maschinell übersetzten Texten evaluiert. So wurde auf Basis der Aufgabenstellung mittels ChatGPT ein Bewerbungsschreiben generiert, das wiederum von unterschiedlichen Übersetzungsprogrammen übersetzt wurde. Der so entstandene Text war zwar nicht vollumfänglich zufriedenstellend, wies allerdings nur sehr wenig Änderungsbedarf auf. Dementsprechend konnte man von den Studierenden, da ihnen auch sämtliche Hilfsmittel online zur Verfügung standen, ähnliche Resultate erwarten. Die Analyse der Endprodukte zeigte hingegen, dass kaum solch zufriedenstellende Texte verfasst wurden, die tatsächlich ohne Änderungen als Bewerbungsschreiben verschickt werden könnten. Dies wirkt auf den ersten Blick äußerst erstaunlich, da aufgrund der hohen Qualität der Übersetzungsprogramme mit anderen/besseren Resultaten zu rechnen gewesen wäre. Daher galt es in der Folge die in den Texten enthaltenen Fehler zu identifizieren sowie dafür Erklärungen zu finden.

Das Verfassen des im Test verlangten Bewerbungsschreibens löste bei insgesamt 90 Studierenden wie bereits angeführt insgesamt 1545 Suchvorgänge aus, wovon 56% auf Übersetzungsprogramme entfielen. Bei der Analyse der Texte wurden die Passagen ausgewertet, die fehlerhaft waren, insbesondere in Hinblick auf die zuvor definierten relevanten Syntagmen. Als „fehlerhaft" galten dabei Abweichungen von der Norm auf lexikalischer, morphologischer, syntaktischer, orthographischer und stilistisch-pragmatischer Ebene. So konnten insgesamt 427 Fehler ermittelt werden, was einem Anteil von

28% aller Suchvorgänge entspricht. In der Folge wurden vor allem die Fehler ausgewertet, die unter Verwendung eines Übersetzungsprogramms entstanden waren, in Summe 158, also 18% aller Suchvorgänge bzw. 37% aller Fehler. Andere fehlerhafte Passagen, in denen die Studierenden entweder kein Hilfsmittel oder aber andere lexikalische Hilfsmittel wie Online-Wörterbücher verwendeten, wurden hier nicht berücksichtigt. Die Fehler verteilten sich wenig überraschend nicht gleichmäßig auf die unterschiedlichen Syntagmen. Besonders fehleranfällig waren studienspezifische Ausdrücke in Hinblick auf das Studienfach (*Internationale Betriebswirtschaftslehre*), die Spezialisierung (*verhaltenswissenschaftlich orientiertes Management*) und die Universität (*WU Wien*) sowie Begriffe, die zur Beschreibung vorhandener Soft Skills notwendig waren (*Organisationstalent, teamfähig, belastbar*) (s. Personenbeschreibung in der praktischen Aufgabenstellung 7.2). In der Folge soll anhand von Beispielen analysiert werden, wie sich diese Fehlerquote erklären lässt, und diskutiert werden, welche Schlussfolgerungen sich daraus auch für den Unterricht ziehen lassen.

5 Analyse der erzielten Resultate

Die festgestellten Probleme der Studierenden beim Verfassen des Bewerbungsschreibens können – soweit sie Übersetzungsprogramme betreffen (von anderen Schwierigkeiten soll hier abgesehen werden) – in zwei Gruppen klassifiziert werden:
– Probleme der automatischen Übersetzung an sich, also sprachliche Elemente und Strukturen, bei denen die Programme selbst teilweise unzutreffende oder unzureichende Vorschläge liefern
– Probleme des Gebrauchs von Übersetzungsprogrammen, also eindeutig durch Benutzer:innen verursachte Fehlübersetzungen

5.1 Schwächen der Übersetzungsprogramme

Erstere Kategorie ist für Unterrichtskontexte insofern interessant, als eine systematische Erfassung „üblicher" Schwierigkeiten die Möglichkeit bietet, Studierende darauf hinzuweisen, in welchen Bereichen besondere Vorsicht bei der Verwendung von Übersetzungsprogrammen angebracht und z. B. eine Überprüfung einer vorgeschlagenen Übersetzung notwendig ist. Es ist klar, dass solche Hinweise und Ratschläge zum gegenwärtigen Zeitpunkt und Entwicklungsstand nur bis zu einem gewissen Grad gegeben werden können. Vielfach betreffen die Schwierigkeiten Aspekte, die bereits in Abschnitt 2 als Schwachstellen der Übersetzungsprogramme genannt wurden.

Sprachliche Variation (Register, regionale Varianten, Pragmatik): Im Korpus der von den Studierenden verfassten Schreiben und dokumentierten Suchvorgänge fanden sich

auf Übersetzungsprogramme zurückgehende Fehlübersetzungen, die in der Wortwahl für die jeweilige Varietät unpassend waren. Die im Deutschen typische Brief-Anrede-formel *sehr geehrte Damen und Herren* wurde mit *estimadas damas y caballeros (S14 – Microsoft Translator)* übersetzt, einer antiquierten Form, die pragmatisch im Kontext einer Bewerbung für einen Praktikumsplatz unangebracht ist. Ebenso im Spanischen wurde *Ich will mich für das Praktikum bewerben* mit dem nur in Südamerika gebräuch-lichen *Quiero solicitar una pasantía* übersetzt (S30 – Pons Textübersetzer), was für eine Bewerbung in Spanien eine unpassende Wortwahl wäre. Für die Formulierung *Ich bin teamfähig* schlägt das Übersetzungsprogramm im Italienischen *sono un giocatore di squadra (I8 – DeepL)* vor, was wiederum nicht in das sprachliche Register eines Bewer-bungsschreibens passt. Dies wirft für die Nutzer:innen des Übersetzungsprogramms die große Frage nach der Art der notwendigen Information auf, die in einem konkreten Fall zur Kontextualisierung zu geben ist – eine Frage, die für die überwiegende Mehr-heit der Verwendenden von Übersetzungsprogrammen zumeist schwer zu beantwor-ten ist. Es liegt daher in solchen Fällen tatsächlich an den Übersetzungsprogrammen, bessere Lösungen anzubieten.

Fachterminologie: Insbesondere Begriffe, die für die Beschreibung des aktuellen Ausbildungsstands relevant waren, stellten sich fast durchgehend als Schwierigkeit dar. Die Spezialisierung *verhaltenswissenschaftlich orientiertes Management* war mehr oder minder unabhängig von der konkreten Eingabe eine zu große Hürde für die verwende-ten Übersetzungsprogramme, wie Beispiele 1–3 veranschaulichen:

1. *Ma spécialisation à l'université est le management orienté vers les sciences compor-tementales. (F19 – DeepL)*
2. *mi sono specializzata nella gestione della scienza comportamentale (I21 – DeepL)*
3. *Durante mis estudios me especialicé en Management de Ciencia del Compartimiento (S21 – Google Translate)*

In allen drei Fällen hatten die Studierenden vollständige Sätze eingegeben, die in einem Bewerbungsschreiben auf Deutsch absolut unbedenklich und der Situation angemes-sen gewesen wären.

Landesspezifische und kulturelle Elemente: Da die Studienorganisation in Öster-reich sich von jener in den romanisch sprachigen Ländern unterscheidet, tauchen auch Schwierigkeiten mit Übersetzungen in diesem Bereich auf. Die Übersetzung von *Ich stu-diere im fünften Semester Betriebswirtschaftslehre* mit *je suis en cinquième année d'étu-des de gestion d'entreprise (F1 – DeepL)* ist zwar eine an sich bemerkenswerte kulturelle Adaptation (Semester sind in Frankreich und vielen anderen Ländern kulturell nicht verankert), bedeutet aber etwas anderes, was gerade in einem Bewerbungsschreiben relevant sein könnte. Auch die Fehlübersetzungen des Namens der Institution *Wirt-schaftsuniversität Wien*, so z. B. ins Italienische mit der englischen Bezeichnung *Vienna University of Economics and Business Administration (I3 – DeepL)* fallen zum Teil in diesen Bereich der länderspezifischen Übersetzungsprobleme.

5.2 Unsachgemäße Verwendung der Übersetzungsprogramme

Die zweite der von uns festgestellten Problemkategorien betrifft die Verwendung von Übersetzungsprogrammen seitens unserer Studierenden und ist somit jener Bereich, in dem man relativ schnell durch entsprechenden Unterricht bessere Ergebnisse erzielen müsste.

Als erste und sicherlich wichtigste Fehlerquelle ist in diesem Zusammenhang im Prinzip die Nicht-Verwendung dieser Hilfsmittel zu nennen, die allerdings in der Studie nur indirekt erfasst wurde: Wenn die Zahl der fehlerhaften Syntagmen durch die Verwendung von Übersetzungsprogrammen sinkt (und bei korrekter Verwendung extrem sinkt), lässt das den Schluss zu, dass die Nicht-Verwendung im Allgemeinen kontraproduktiv ist und somit der erste Ratschlag an die Studierenden für das Verfassen eines Bewerbungsschreibens sein müsste, beim gegebenen Sprachniveau (im vorliegenden Fall zwischen B1 und B2 nach GERS) nicht eigenständig vorzugehen. Dies zeigt auch der hohe Anteil an Fehlern (63%), die ohne Rekurs auf ein Übersetzungsprogramm entstanden waren.

Dieser erste Aspekt der Nicht-Verwendung geht nahtlos über in eine nicht adäquate Verwendung des Hilfsmittels, in den allermeisten Fällen in einen Gebrauch als Wörterbuch. *Unternehmensberatung* als Eingabe ist mehrdeutig und führt fast zwangsläufig zu unrichtigen bzw. nicht kontext-adäquaten Übersetzungsvorschlägen (im Test nämlich als Unternehmens- bzw. Wirtschaftszweig zu verstehen), so z. B. *el área de consulta de trabajo (S21 – Google Translate)* oder *sa conseil d'entreprise impeccable (F5 – DeepL)*. Auch Begriffe wie *teamfähig*, *Organisationstalent* oder *belastbar* bedürfen einer Kontextualisierung, um für das Bewerbungsschreiben korrekt übersetzt zu werden, da sonst Formulierungen wie *sono un talento organizzativo (I14 – Google Translate)* oder *je suis robuste (F27 – Pons Textübersetzer)* entstehen. Selbiges gilt auch für den polysemen Begriff *Zeugnis(se)*, der aus dem Kontext gegriffen falsch mit *testimonios (S5 – DeepL)* wiedergegeben wird. Wenn die Eingabe dann vielleicht auch noch orthographisch oder grammatikalisch fehlerhaft ist, sind bei isolierten Lexemen die Korrekturmöglichkeiten dieser Programme zusätzlich beschränkt. So wird die Suche nach *im Anhang* mit Tippfehler zu *im anhand* und dementsprechend mit *sulla base* anstelle von *in allegato* (I8 – DeepL) übersetzt. Die Feststellung, dass Übersetzungsprogramme als Wörterbuchersatz verwendet wurden, stützt sich auch darauf, dass einerseits offensichtlich nicht bewusst zwischen Übersetzern und Wörterbüchern unterschieden wird (s. Abschnitt 4.2), andererseits auch von Studierenden als Nachteil von Übersetzungsprogrammen angegeben wurde, es fehle häufig der Kontext (s. Abschnitt 4.3). Es dürfte also das Bewusstsein dafür fehlen, dass auch Übersetzungsprogramme einen Kontext brauchen, um diesen mitübersetzen zu können. Als Beispiel kann hier abschließend die verwendete Eingabe *der Ruf* angeführt werden, die ohne Kontextualisierung als Ergebnis *chiamata (I28 – DeepL)* produziert. Ergänzt man hingegen auch nur das Attribut *hervorragender*, kommt man bereits zum korrekten *reputazione eccellente (I5 – DeepL)*. Liefert man einen ganzen Satz oder gar Absatz, erzielt das Programm häufig selbstredend bessere Ergebnisse als

bei der Verwendung als Wörterbuch, wo nur genau eine Option vorgeschlagen wird. Bessere Ergebnisse könnten die Studierenden also durch die Eingabe sinnvoller, vollständiger und kohärenter Sätze erzielen, denn „State-of-the-art MT engines are trained to translate sentences. They work best when they can actually identify and translate full sentences" (Carré et al. 2022: 195). Auch Hellmich (2021) betont, dass viele Nutzer:innen von Übersetzungsprogrammen zu wenig Input geben und dadurch bedingt unzufriedenstellende Ergebnisse erzielen.

Die Verwendung als Wörterbuchersatz ist, wenn auch die gängigste, so nicht das einzige Missverstehen der Möglichkeiten eines Übersetzungsprogramms. Wir konnten in unseren Analysen auch Chatbot-ähnliche Eingaben finden. *Ich würde gern dort arbeiten. (S15 – Google Translate)* kann bei Eingabe in einen automatischen Übersetzer zu keinem akzeptablen Ergebnis führen, ist allerdings auch als Prompt in einen Chatbot ohne weiteren Kontext wohl eher ungeeignet. Das Beispiel zeigt jedenfalls recht deutlich, dass sich für die Studierenden die jeweilige Natur der Werkzeuge sehr undifferenziert darstellt.

Schlussendlich haben unsere Testergebnisse noch ein zunächst widersprüchliches Ergebnis erbracht: Einerseits wird von manchen Studierenden völlig unkritisch übernommen, was auch immer als Übersetzungsvorschlag vom jeweiligen Programm vorgeschlagen wird, was so weit geht, dass z. B. einfachste Übereinstimmungsregeln missachtet werden (also etwa Studentinnen *Je serais heureux (F9, F10)* als Übersetzung für ihren Brief akzeptieren). Anderseits finden sich in einem nicht zu unterschätzenden Ausmaß „Korrekturen" völlig richtiger Übersetzungen, die die Studierenden jedoch als fehlerhaft einstufen. So wurde das Übersetzungsresultat *J'ai déjà fait un stage dans un service des ressources humaines (F27 – Pons Textübersetzer)* geändert zu **J'ai aussi déjà faire un stage dans un service du personnel (F27 – Studierendentext)*, wobei nach der Suchanfrage im Textübersetzer auch noch die Begriffe *außerdem* bzw. *Personalabteilung* extra im Pons Wörterbuch gesucht wurden. Somit zeigt sich das Misstrauen gegenüber Vorschlägen von Übersetzungsprogrammen verstärkt bei Syntagmen, wo unterschiedliche lexikographische Hilfsmittel zur Lösung eines lexikalischen Problems herangezogen und in der Konstruktion des Endtextes kombiniert werden.

6 Schlussfolgerungen und Implikationen für den (fachsprachlichen) Fremdsprachenunterricht

Fasst man die Ergebnisse unserer Studie zusammen, so lassen sich folgende Feststellungen treffen, die naturgemäß zunächst im spezifischen Kontext unserer Unterrichtssituation zu sehen sind, von denen wir aber annehmen, dass sie sich auf andere Kontexte übertragen lassen:
– Die Studierenden kennen und verwenden in erster Linie die Übersetzungsprogramme (jeweils die kostenfreien Versionen) von DeepL, Google und Pons, mit deren Qualität sie im Großen und Ganzen zufrieden sind.

– Die Programme werden hauptsächlich für die schriftliche Kommunikation eingesetzt, mit einem Schwerpunkt auf der Produktion von fremdsprachlichen Texten, wenngleich sie auch zur Verständnissicherung in der Textrezeption sowie für Rückübersetzungen herangezogen werden.
– Studierende differenzieren wenig oder gar nicht zwischen Online-Wörterbüchern und Übersetzungsprogrammen, was sich auch in den angegebenen und im Test bestätigten Eingabestrategien zeigt, wo eine Präferenz für einzelne Wörter oder bestenfalls Wortgruppen ersichtlich wird.

Generell senkt der Einsatz von Übersetzungsprogrammen als solche die Anzahl der Fehler in den von den Studierenden auf B1/B2-Niveau verfassten Bewerbungsschreiben. Dies passiert allerdings nicht in dem Ausmaß, das vielleicht erwartbar wäre, insbesondere wenn man berücksichtigt, dass die Strategie, einen vollständigen Text übersetzen zu lassen, ein besseres und auch als reales Bewerbungsschreiben sehr akzeptables Ergebnis erbracht hätte. Diese Erkenntnis zeigten auch bereits andere Untersuchungen (Briva-Iglesias 2021: 588).

Als Ursachen für die fehlerhaften Resultate der Studierenden lassen sich zwei Erklärungsansätze unterscheiden:
– Schwächen der Übersetzungsprogramme an sich
– Unsachgemäße Verwendung dieser Programme

Die beiden Gruppen gehen insofern ineinander über, als die korrekte Verwendung automatischer Übersetzungsprogramme berücksichtigen muss, dass hier kein Instrument vorliegt, dass wie ein Taschenrechner immer 100% richtige und kontextadäquate Ergebnisse liefern wird – zumindest bei derzeitigem Stand der Entwicklung.

Der Fremdsprachenunterricht sollte es sich folglich zur Aufgabe machen, den Umgang mit den vorhandenen Möglichkeiten auch entsprechend zu trainieren (Hellmich 2021; Klekovkina/Denié-Higney 2022: 106; Pellet/Myers 2022: 169; Tourmen/ Hoffmann 2022). Dies sollte es ermöglichen, bessere Ergebnisse zu erzielen und die Studierenden zu einem adäquaten Gebrauch zu befähigen: „Language learners make better use of MT when they have received appropriate training" (Carré et al. 2022: 193). Die Studierenden müssen somit nicht nur dahingehend instruiert werden, dass es fundamentale Wesensunterschiede zwischen unterschiedlichen Hilfsmitteln, also zwischen Wörterbüchern, Chatbots, Suchmaschinen und Übersetzungsprogrammen gibt und was sinnvollerweise wofür einsatzbar ist. Sie sollten auch eine Sensibilität dafür entwickeln, in welchen sprachlichen Bereichen (Pragmatik, Sprachregister, Fachterminologie, Variation, Grammatik, Kulturspezifisches, etc.) eine Überprüfung bzw. auch Adaptierung (z. B. Übereinstimmung) in geeigneter Form angezeigt ist und wie diese sinnvollerweise durchgeführt werden kann. So können wir uns in Hinblick auf die Umsetzungen im Unterricht dem Wunsch von Ducar und Schocket (2018: 789) anschließen: „Learners need to realize that even when words seem to map directly from one

language to the next, the cultural concepts, products, practices, beliefs, and values that are conveyed are not necessarily the same".

Dabei handelt es sich um eine ausgesprochen anspruchsvolle Forderung an alle an einem solchen Prozess beteiligten Gruppen, verlangt sie doch bei den Studierenden vielfach ein Abkommen von herkömmlichen Arbeitsweisen. Zudem geht es nicht nur darum, ein Bewusstsein für das Funktionieren der jeweils zur Verfügung stehenden und sich ständig weiterentwickelnden lexikographischen Hilfsmittel, sondern auch für das Funktionieren von Sprache überhaupt zu entwickeln. Zemach (2021) beschreibt diesen wünschenswerten Effekt folgendermaßen: „So, students were learning more than English. They were learning how language works, how machine translation works and even how learning works". Unsere Zielgruppe scheint dafür bestens geeignet zu sein, da vorhergehende Studien zeigen, dass Lernende auf B1- oder B2-Niveau in der Fremdsprache besonders von Instruktionen und Unterrichtseinheiten zur Verwendung von automatischen Übersetzungsprogrammen profitieren (Carré et al. 2022: 198).

Für diese Instruktionen braucht es aber auch seitens der Lehrenden ein Überdenken und Anpassen herkömmlicher Unterrichtsinhalte sowie geeignete Materialien, die die Möglichkeiten und Grenzen der neuen Technologien aufzeigen und berücksichtigen. Dafür ist jedoch deren intensivierte und permanent aktualisierte Überprüfung vonseiten der Sprachlehrforschung und Lexikographie notwendig, um nicht veraltete Erklärungsansätze und Grundlagen für die Materialentwicklung zu liefern (Briggs 2018; Ducar/Schocket 2018). Der immer wieder erhobene Aufruf an die Unterrichtenden zur ständigen Weiterbildung gerade auch in diesem Bereich (vgl. z. B. Cruz Piñol 2015: 166–167) hat demnach nichts an Aktualität verloren.

Die sich mittlerweile im vollen Gang befindliche Diskussion um ChatGPT und ähnliche Instrumente auf Basis künstlicher Intelligenz (die zum Zeitpunkt der Durchführung unserer Studie der breiten Öffentlichkeit noch nicht zur Verfügung standen) wird das ihrige dazu beitragen, viele Aspekte im Sprachunterricht zu problematisieren und in der Folge zu einem Überdenken führen.

7 Anhang

7.1 Fragebogen

ANGABEN ZUR PERSON

2 Alter *

3 Geschlecht
- ○ weiblich
- ○ männlich
- ○ divers

4   Welche der folgenden Sprachen sprechen Sie?

	Muttersprache	Grundkenntnisse (A1/A2)	fortgeschrittene Kenntnisse (Maturaniveau, B1/B2)	sehr gute Kenntnisse (C1/C2)	keine Kenntnisse
Deutsch					
Englisch					
Französisch					
Italienisch					
Spanisch					

5   Welche weitere(n) Sprache(n) sprechen Sie und auf welchem Niveau (nach obenstehendem Muster) beherrschen Sie diese? (z. B.: Tschechisch, Muttersprache; Arabisch, Grundkenntnisse)

6   Welche Lehrveranstaltung besuchen Sie aktuell?

	Wiko 1	Wiko 2	Wiko 3
Französisch			
Italienisch			
Spanisch			

ÜBERSETZUNGSPROGRAMME

7   Welche Übersetzungsprogramme kennen Sie?*

VERWENDUNG VON ÜBERSETZUNGSPROGRAMMEN

8   Welche der folgenden Programme verwenden Sie und mit welcher Häufigkeit?*

	nie	selten	gelegentlich	häufig
DeepL (kostenlose Version)				
DeepL (kostenpflichtige Version)				
Google Translate				
Pons Übersetzer (nicht "nur" das Wörterbuch)				
Reverso				

9   Falls Sie andere Programme verwenden, geben Sie diese hier mit der Häufigkeit ihrer Verwendung an.

VERWENDUNG VON ÜBERSETZUNGSPROGRAMMEN IM RAHMEN EINER LEHRVERANSTALTUNG

10 Wie häufig verwenden Sie die folgenden Übersetzungsprogramme im Rahmen des Kurses, an dem Sie gerade teilnehmen?*

	nie	selten	gelegentlich	häufig
DeepL (kostenlose Version)				
DeepL (kostenpflichtige Version)				
Google Translate				
Pons Übersetzer (nicht "nur" das Wörterbuch)				
Reverso				

11 Falls Sie auch hier andere Programme verwenden, geben Sie diese mit der Häufigkeit ihrer Verwendung an.

12 Verwenden Sie das (die) Übersetzungsprogramm(e) für diese Lehrveranstaltung üblicherweise beim Übersetzen … *
- ○ aus der Zielsprache der Lehrveranstaltung in die Muttersprache
- ○ aus der Zielsprache der Lehrveranstaltung in eine andere Sprache
- ○ aus der Muttersprache in die Zielsprache der Lehrveranstaltung
- ○ aus einer anderen Sprache in die Zielsprache der Lehrveranstaltung
- ○ in beide Richtungen
- ○ Ich verwende keine Übersetzungsprogramme.

13 Was übersetzen Sie hauptsächlich? * einzelne Wörter
- ○ Wortgruppen
- ○ ganze Sätze
- ○ Textteile/Absätze
- ○ ganze Texte
- ○ gar nichts
- ○ Sonstiges:

14 In welchen Situationen greifen Sie auf die Hilfe von Übersetzungsprogrammen zurück? *
- ○ in der Textproduktion (Hausübungen, E-Mails, …)
- ○ in der Textrezeption (Leseverständnis, Informationssuche, …)
- ○ in mündlichen Situationen
- ○ in gar keiner

**15 Welche anderen Quellen verwenden Sie neben Übersetzungsprogrammen für sprachliche Zwecke (für Ihre Lehrveranstaltung)? ***Printwörterbücher
- ○ Online-Wörterbücher
- ○ Suchmaschinen (Google, etc.)
- ○ Enzyklopädien (Wikipedia, etc.)

- ○ mündliche Spracherkennungssoftware
- ○ Hilfe von Kolleg:innen, Freund:innen, Familie
- ○ keine
- ○ Sonstiges:

16 Beschreiben Sie Ihre Verwendungsstrategien mithilfe der folgenden Skala (1 = trifft völlig zu; 5 = trifft nicht zu)

	1	2	3	4	5
Ich gebe Wörter/Wortgruppen ein und vertraue der Übersetzung, ohne sie noch einmal zu überprüfen.					
Ich gebe Wörter/Wortgruppen ein und überprüfe diese auf ihre Verwendung im Kontext.					
Ich gebe ganze Sätze, Absätze oder Texte ein und vertraue der Übersetzung, ohne diese noch einmal zu lesen oder zu überprüfen.					
Ich lasse Sätze, Absätze oder Texte übersetzen, kontrolliere danach aber genau und ändere auch viele Passagen.					
Ich vergleiche Übersetzungsergebnisse aus unterschiedlichen Programmen.					
Ich lasse den übersetzten Text zur Kontrolle in die Ausgangssprache rückübersetzen.					

17 Möchten Sie sonst noch etwas zu Ihrem persönlichen Umgang mit Übersetzungsprogrammen ergänzen?

BEWERTUNG DER VERWENDUNG VON ÜBERSETZUNGSPROGRAMMEN IM RAHMEN EINER LEHRVERANSTALTUNG

18 Beurteilen Sie die folgenden Aussagen auf einer Skala von 1 bis 5 (1 = trifft völlig zu; 5 = trifft nicht zu)

	1	2	3	4	5
Übersetzungsprogramme sind für mich ein wichtiges Hilfsmittel.					
Die Übersetzungen aus diesen Programmen erscheinen mir in den allermeisten Fällen zutreffend.					
Ich habe bereits sehr schlechte Erfahrungen mit den Vorschlägen aus Übersetzungsprogrammen gemacht.					
Die Texte aus Übersetzungsprogrammen sind besser als Texte, die ich produzieren könnte.					

19 Beurteilen Sie die folgenden Aussagen auf einer Skala von 1 bis 5 (1 = trifft völlig zu; 5 = trifft nicht zu)

	1	2	3	4	5
Durch die Verwendung von Übersetzungsprogrammen kann ich meine Sprachkenntnisse verbessern.					
Übersetzungsprogramme hemmen den Lernfortschritt, weil alles automatisch passiert.					
Im Unterricht wird die Verwendung dieser Programme thematisiert.					
Im Unterricht wird von der Verwendung dieser Programme abgeraten.					
Für mich ist die Verwendung von Übersetzungsprogrammen für Hausübungen, Abgaben oder Prüfungen eine Form von Schummeln.					

20 Wie bewerten Sie generell die Qualität von Übersetzungsprogrammen (mit Schulnoten von 1 bis 5)?

21 Welche Vorteile bringen Ihnen diese Programme?

22 Welche Schwierigkeiten oder Schwachstellen sind Ihnen in der Verwendung aufgefallen?

23 Falls Sie bereit sind, für unser Forschungsprojekt über diesen Fragebogen hinaus auch im Laufe des Wintersemesters zur Verfügung zu stehen, bitten wir Sie um Ihre E-Mail-Adresse.

Die Umfrage ist hiermit abgeschlossen.

Merci! Grazie! ¡Muchas gracias!

7.2 Praktische Aufgabenstellung

Aufgabenstellung:

Du willst dich um einen Praktikumsplatz in Italien/Frankreich/Spanien bewerben und musst in der jeweiligen Sprache ein Bewerbungsschreiben verfassen. **Das Schreiben muss unbedingt in vollständigen Sätzen verfasst sein (keine Stichwörter!) und alle angegebenen Informationen beinhalten.**

Deine Person:

Name: Alexandra/Alexander Huber Alter: 22

Student:in der Betriebswirtschaftslehre an der WU Wien

Spezialisierung: Verhaltenswissenschaftlich orientiertes Management

Bewerbung um Praktikumsplatz im Monat Juli bei Firma DILOTE

Motivation: DILOTE hat hervorragenden Ruf in der Unternehmensberatung, in diesem Bereich siehst du deine berufliche Zukunft.

Du hast bereits ein Praktikum in einer Personalabteilung absolviert.

Du hast gute Sprachkenntnisse, bist ein Organisationstalent, teamfähig und belastbar.

Im Anhang schickst du Zeugnisse und weitere Bescheinigungen.

Du würdest dich über eine Antwort und eine Einladung zu einem Bewerbungsgespräch sehr freuen.

Achtung: Es handelt sich um einen Brief. Bitte nicht auf die Anrede und Schlussformel vergessen.

8 Literatur

8.1 Sekundärliteratur

Bowker, Lynne (2020): Machine translation literacy instruction for international business students and business English instructors. In: *Journal of Business & Finance Librarianship* 25:1–2, 25–43.

Bowker, Lynne/Buitrago Ciro Jairo (2019): *Machine translation and global research: towards improved machine translation literacy in the scholarly community*. Bingley: Emerald Publishing.

Briggs, Neil (2018): Neural machine translation tools in the language learning classroom: Students' use, perceptions, and analyses. In: *JALT CALL Journal* 14:1, 3–24.

Briva-Iglesias, Vicent (2021): Traducción humana vs. traducción automática: análisis contrastivo e implicaciones para la aplicación de la traducción automática en traducción jurídica. In: *Mutatis Mutandis. Revista Latinoamericana de Traducción* 14:2, 571–600.

Carré, Alice/Kenny, Dorothy/Rossi, Caroline/Sánchez-Gijón, Pilar/Torres-Hostench, Olga (2022): Machine translation for language learners. In: Kenny, Dorothy (Hrsg.): *Machine translation for everyone: Empowering users in the age of artificial intelligence*. Berlin: Language Science Press, 187–207.

Cruz Piñol, Mar (2015): Léxico y ELE: Enseñanza/Aprendizaje con tecnologías. In: *Journal of Spanish Language Teaching* 2:2, 165–79.

Dorst, Aletta G./Valdez, Susana/Bouman, Heather (2022): Machine translation in the multilingual classroom: how, when and why do humanities students at a Dutch university use machine translation? In: *Translation and Translanguaging in Multilingual Contexts* 8:1, 49–66.

Ducar, Cynthia/Schocket, Deborah Houk (2018): Machine translation and the L2 classroom: pedagogical solutions for making peace with Google translate. In: *Foreign Language Annals* 51:4, 779–795.

Fredholm, Kent (2021): Google translate search strategies used by learners of Spanish L3: A complex lexico-morpho-syntactic weave of trial and error. In: *Estudios de Lingüística Aplicada* 39:72, 9–48.

Hellmich, Emily A. (2021): Machine translation in foreign language writing: student use to guide pedagogical practice. In: *Alsic* 24:1.

Jolley, Jason R./Maimone, Luciane (2022): Thirty years of machine translation in language teaching and learning: a review of the literature. In: *L2 Journal* 14:1, 26–44.

Klekovkina, Vera/Denié-Higney, Laurence (2022): Machine translation: friend or foe in the language classroom? In: *L2 Journal* 14:1, 105–135.

Klimova, Blanka/Pikhart, Marcel/Delorme Benites, Alice/Lehr, Caroline/Sanchez-Stockhammer, Christina (2023): Neural machine translation in foreign language teaching and learning: a systematic review. In: *Education and Information Technologies* 28:1, 663–682.

Le, Quoc V./Schuster, Mike (2016): A neural network for machine translation, at production scale. In: *GoogleBlog* (blog) [https://ai.googleblog.com/2016/09/a-neural-network-for-machine.html>; letzter Zugriff: 11.03.2024].

Lee, Sangmin-Michelle (2020): The impact of using machine translation on EFL students' writing. In: *Computer Assisted Language Learning* 33:3, 157–175.

Maldonado González, María Concepción/Liébana González, María (2023): La traducción automática y su uso en la redacción de textos digitales: Análisis de algunos documentos reales de trabajo. In: *Círculo de Lingüística Aplicada a la Comunicación* 95, 133–161.

Paterson, Kate (2023): Machine translation in higher education: perceptions, policy, and pedagogy. In: *TESOL Journal* 14:2: e690.

Pellet, Stephanie/Myers, Lindsy (2022): What's wrong with "What is your name?" > "Quel est votre nom?": teaching responsible use of MT through discursive competence and metalanguage awareness. In: *L2 Journal* 14:1, 166–194.

Torres-Simón, Ester/Pym, Anthony (2021): La confianza de los estudiantes de traducción en la traducción automática: ¿demasiado buena para ser verdad? In: *Revista Internacional de Lenguas Extranjeras / International Journal of Foreign Languages* 1:15.

Tourmen, Claire/Hoffmann, Daniel (2022): A "hands-on" approach to raise awareness of technologies: a pilot class and its lessons. In: *L2 Journal* 14:1, 237–257.

Wu, Yonghui et al. (2016): Google's neural machine translation system: bridging the gap between human and machine translation [https://arxiv.org/abs/1609.08144>; letzter Zugriff: 11.03.2024].

Zemach, Dorothy (2021): Are machine translation tools a threat to English teaching? In: *Education-Blog* (blog) [https://bridge.edu/tefl/blog/are-machine-translation-tools-a-threat-to-english-teaching/>; letzter Zugriff: 11.03.2024].

8.2 Lexikographische Hilfsmittel

Bab.la = https://bab.la/ (letzter Zugriff: 29.02.2024).

DeepL = https://www.deepl.com/translator (letzter Zugriff: 29.02.2024).

Google Translate = https://translate.google.com/?hl=de (letzter Zugriff: 29.02.2024).

Leo = https://www.leo.org/ (letzter Zugriff: 29.02.2024).

Linguee = https://www.linguee.com/ (letzter Zugriff: 29.02.2024).

Microsoft Translator = https://www.microsoft.com/de-de/translator/ (letzter Zugriff: 29.02.2024).

Pons = https://de.pons.com/ (letzter Zugriff: 29.02.2024).

Reverso = https://www.reverso.net/Text%C3%BCbersetzung (letzter Zugriff: 29.02.2024).

Wordreference = https://www.wordreference.com/ (letzter Zugriff: 29.02.2024).

Anja Smith

(Re)defining the role of the foreign language learners' dictionary: Towards a concept for a phraseopragmatic GFL dictionary for French learners

Abstract: This article attempts to re-define the notion of foreign learners' dictionary on the premise that it is analysable as a social construct, by using discourse and text analytical methods combined with a primarily phraseological approach to language and foreign language (FL) learning. Following a discussion of the theoretical and ideological underpinnings of metalexicographical discourse with respect to the digital revolution, the study questions some typological issues linked to the concepts of bilingual dictionary and translation before applying the notions of dictionary- versus user-centredness to an exploratory study based on an online questionnaire concerning the role of the dictionary for FL learning. The analysis reveals the complexity of these notions as well as their interrelatedness with the terms of knowledge- vs. communication-orientedness from a function theoretical point of view. In the conclusion, the findings of the study are connected to the concept of understanding as a central didactic component both within the phraseopragmatic approach to FL learning and the re-definition of the role of the FL learners' dictionary.

Keywords: bilingual dictionaries, digital revolution, dictionary functions, GFL, learners' dictionary, phraseography, phraseopragmatics, user-orientedness

1 Initial observations and basic concepts

The general consensus regarding dictionaries is that since the arrival of the digital age, a *revolution* has taken place, leading to profound changes which affect all aspects of dictionary making and use. Many articles and books published on the subject contain phrases which imply fascination mixed with reserve or even apprehension. Thus, Zimmer (2014) reports on different reactions to the end of the print version of the *Macmillan* dictionary expressed by such opposite judgements as "a moment of liberation" on the one hand and "a sad day" on the other (p. 275–276). Zimmer's own optimistic appraisal of a situation providing "fresh opportunities for lexicographers to engage with generations coming of age in the electronic era" is nevertheless "tempered" by "an

Anja Smith, ATILF (CNRS & Université de Lorraine)**;** ATILF, 44, avenue de la Libération, F – 54000 NANCY, e-mail: anja.smith@univ-lorraine.fr, URL: https://www.atilf.fr/

understanding of how electronic formats for dictionaries and thesauruses are still a work in progress, with many growing pains along the way" (p. 276).

The frequency with which the progressive death of the print version of dictionaries is announced, nevertheless appears in almost ironic contrast with the unabated production of (printed) articles, books and metalexicographical publications on the subject. The subtitle of the supplementary volume to the three-volume-edition of *Wörterbücher – Dictionaries – Dictionnaires* (Hausmann et al. 1989–1990–1991), suggests that its publication was driven by the desire to incorporate, and thus control, "Recent Developments" by focussing "on Electronic and Computational Lexicography" (Gouws et al. 2013). In the end, the breathtaking progress of neural machine translation[1] might lead, however, not only to the end of print dictionaries but of digital dictionaries as well. After all, recent studies point to frequent use of online translation tools (OTT) such as *Google Translate* (https://translate.google.com/) or *DeepL* (https://www.deepl.com/translator) by foreign language students which, in time, may outpace the use of online dictionaries (for an overview see O'Neill 2019). This unsettling hypothesis seems less likely to prove true than might be thought, however, since the relative popularity of a wide range of scientific, commercial and "alternative e-dictionaries" (cf. Nesi 2012: 363–378) appears to contradict the assumption of decline. Besides, students' judgements regarding the quality of online dictionaries (OD) are distinctly more positive in terms of "reliability and accuracy" compared to OTT (cf. O'Neill 2019: 268–271).

Given the immense progress of OTT over the past five years, this judgement might recently have turned to OTT's advantage.[2] However, it remains unclear what is to be understood by reliability and accuracy. What assessment criteria are they based on? Do the students refer to the quality of translation, to the dictionary's role as an aid to understand and/or use a word or expression with respect to a communicative production or reception activity or, more generally, to learn a language? It is equally unclear whether reliability and accuracy represent qualities inherent to dictionaries in terms of tools, whether they can be imputed to their makers, or else, whether they reflect the (in)competencies of the students themselves. Studies targeting dictionary use suggest that students do not always know how to exploit different dictionaries to their full potential (for a critical overview see Nied Curcio 2015). Therefore, it is plausible that assessments such as the abovementioned should be viewed foremost as personal conceptions of what OTT are, compared to OD, and what their use consists of.

---

1 Neural machine translation is an advanced form of machine translation that does not simply use statistical methods but is based on neural networks that learn data in a similar way to the human brain. This AI-assisted method is used by the online translation tools *DeepL* and *Google Translate*.

2 This assumption, however, is ultimately as risky as the previous one. Heid's (2013) reflections on the impact of computational linguistics on lexicography concluded that "[i]t is always dangerous to try to come up with predictions regarding the future. […] the prediction that printed dictionaries were a thing of the past, […] has not stood the proof of time". Despite these reserves, Heid does not exclude the possibility of "a closer relationship between dictionaries and other information tools" (Heid 2013: 29–30).

The epistemological stance of the present study, then, is that the role of foreign language learners' dictionaries needs to be (re)defined based on the way they are conceived both by their makers and their users. This implies an inductive approach which challenges traditional typological distinctions, such as the one between monolingual and bilingual dictionaries. The confusing variety of articles in the *Encyclopedia of Lexicography* by Hausmann et al. (1989–1990–1991) containing the qualifier "bilingual" can be seen as an illustration of the difficulty in using this term for typological purposes. Hausmann's typology of bilingual specialized dictionaries (Hausmann 1991: 2877–2881) tends to confirm this diagnosis, since the article starts by pointing out the "problems of the bilingual dictionary" regarding its role in the acquisition of a foreign language. According to Hausmann, these problems are due to the necessity of having to take into account not simply the word, but the syntagmatic, contextual, phraseological unit in order to avoid wrong expressions in the target language (Hausmann 1991: 2877). Hausmann thus concludes that the basic unit of a bilingual dictionary is not the word but the phraseological unit: "Die Grundeinheit des zweisprachigen Wörterbuchs ist gar nicht das Wort, sondern die Formulierung, d.h. eine syntagmatische, kontextuelle, phraseologische Einheit" (ibid.) (The basic unit of the bilingual dictionary is, as a matter of fact, not the word, but the formula, i.e. a syntagmatic, contextual, phraseological unit).

From a phraseological and/or construction grammatical point of view, however, this necessity to posit the phraseological unit as the basic unit of a dictionary, be it mono-, bi- or plurilingual, does not appear problematic. On the contrary, phraseological and construction grammatical approaches to language are currently considered to represent valuable analytical and descriptive methods with respect to language teaching and learning leading to holistic, usage-based models of phraseographical description (see e.g. Schafroth 2014; González-Rey 2017). Sinclair's emphatic plea in favour of "the phrase, the whole phrase and nothing but the phrase" (Sinclair 2008: 407–410) expresses the deeply felt conviction that the shift from a monolexical approach of dictionary making to a multilexical approach requires perseverance and resilience. The shift requires perseverance, since the lexicographer's task in identifying "multiword meanings" (ibid.: 409) involves complex statistical analysis which have to be applied "cyclically" to be "the basis of a self-organising model which would eventually produce an exhaustive lexicon of the language" (p. 410). And the shift requires resilience, since the authority and influence of traditional Grammars have imposed a descriptive model based on the strict separation of grammar and lexis, hence "phrases have no chance": [...] "Before even being identified as phrases, they are saddled with a grammatical analysis and each word is allocated a meaning; such assignments are irrelevant and often misleading, and give the researcher a task which is completely unnecessary – to correlate these irrelevant assignments with the accepted meaning of the phrase" (p. 408).

The emotional impetus reflects the strong resistance that the Editor in Chief of the "Collins Cobuild" project probably encountered, since his theory did not merely question the monolexical approach to dictionary making and hence the assumed dominance of traditional grammar over the lexicon, but the role of the dictionary makers

themselves: By replacing parts of the meaning-description of phraseological units with the formal analysis of abstract patterns in combination with statistical methods, the lexicographers find themselves deprived of the creative pleasure of describing the meaning of these units simply through introspection.

A similar mechanism might be at work with respect to a tendency to assess the value of bilingual dictionaries as generally less important than that of monolingual dictionaries: since the meaning descriptions (sometimes called definitions) in monolingual dictionaries involve the writing of paraphrases as well as a systematic presentation of synonyms on the basis of the linguistic and lexicographic competence of the maker, they may procure a sense of personal satisfaction which cannot be supplied by a bilingual dictionary to the same extent. Regardless of the speculative character of these assumptions, they can demonstrate how lexicographical practice and theory depend on the personal views and convictions of the (meta-)lexicographer. The often polemical discussion of basic concepts such as genuine purpose and dictionary function which opposed the German lexicographer Herbert Ernst Wiegand and the Danish representatives of the theory of lexicographical functions (see e.g. Bergenholtz & Tarp 2003) reveal the existence of an intimate link between scientific axioms and personal views on both the field of study and the world in general.

In the present study, dictionaries are viewed as linguistic artefacts which can be described as social constructs emerging from oral and written interactions between lexicographers, lexicographers and experts of related fields, lexicographers and their editors, lexicographers/editors and (expert and non-expert) users as well as between users. Since, for reasons of space, not all constellations of interaction can be considered, only a selected number of aspects regarding the metalexicographical discourse produced by experts on one hand and (expert and non-expert) users on the other will be presented and discussed here. Among this limited number of aspects, the metaphoric labelling of the digital age as a revolution as well as the frequent association of the notion of bilingual dictionary with the concept of translation will be critically examined in the second part. In the third part, the focus will be on the perceptions and opinions of expert and non-expert users of dictionaries, collected by means of an online questionnaire. The fourth and final part will present a few conclusions together with a general presentation of a concept for a phraseopragmatic learner's dictionary for German as a foreign language (GFL).

The absence of consensus on the definition of learners' dictionary is probably due to conflicting linguistic and lexicographical theories (cf. Bielińska 2009), an issue going beyond the limits of the theoretical and methodological framework of the present study. Hence, the definition of the GFL dictionary in terms of a learners' dictionary must be based on a pre-theoretical, pragmatic approach. For this study, a definition in terms of a dictionary intended for learners of GFL is necessarily minimal and provisional, since the distinctive features will have to be (re)constructed from the concepts emerging from the different metalexicographical discourses produced by dictionary makers and users. Metalexicographical parameters such as dictionary type, lemma selection,

access structure, definitions, descriptive categories, overall organization of entries etc. are only considered to the extent that they occur in these discourses. The approach is radical in the sense that it questions not only the role but also the concept of dictionary as an object of metalexicographical study.

2 What is a dictionary? – Metalexicographical discourse

2.1 The digital revolution from the metalexicographers' point of view

The more or less recent developments (see above) raise the fundamental metalexicographical question of "What is a dictionary?" The considerable impact of the electronic age on the lexicographical age appears to be widely acknowledged by lexicologists and lexicographers (cf. e.g. Lew/de Schryver 2014; overview in L'Homme/Cormier 2014), yet the question concerning the exact nature of dictionaries tends to be eluded. The table of contents of the above mentioned supplementary volume by Gouws et al. (2013) can be viewed as reflecting a general tendency to displace the focus from the "What" towards the "How", namely by concentrating on specific aspects such as dictionary types and functions, dictionary subjects, research into dictionary production and use, lexicographic training etc. (cf. Gouws et al. 2013: IX–X). This phenomenon can be observed throughout the four volumes, thus pointing to the fundamental difficulty in defining the nature of dictionaries.

Some scholars manifest a certain delectation in observing the decline of print dictionaries by expressing simultaneously their delight in entering an age centred on more practical issues, namely in terms of user-friendliness/easy access and "a more pragmatic and less ideological or dogmatic view of dictionaries" (Lew/de Schryver 2014: 342). Thus, Lew/de Schryver (2014) present the "digital revolution in lexicography from the perspective of the dictionary user" (p. 341) as a liberation of "the dictionary" ([highlighted by quotation marks] ibid.) perceived as an "authority" that was "rarely questioned" and whose "often cryptic lexicographic contents" the user "was burdened with" when trying to "decipher" it (ibid.). Moreover, print dictionaries are presented as emanations of a capitalist system preoccupied by selling and opposed to any kind of change, let alone a revolution: "Centuries of lexicography saw a lot of repetition, including wholesale copying of dictionary content; change, if any, was slow and painful" (Lew/de Schryver 2014: 342). The political dimension of this criticism appears in the image of empowering which transpires through the assertion that progressive digitalization entailed an involvement of the users who "themselves started getting involved in bottom-up dictionary-making" (ibid.).

The digital revolution viewed as liberation from the chains of an authoritarian order incarnated by the dictionary as the secularised version of the Bible entails a dis-

regard for print dictionaries. It also delivers a cue to what a dictionary is, namely an object highly invested with cultural and historical value and thus exposed to iconoclastic criticism. The reason for the dictionaries' tendency to either attract censure or praise speaks to their use as aids to understand words (language) as well as things (the world). Since knowledge is power, dictionaries can be perceived as symbolic representations of whoever detains the power.

From a pragmatic point of view, dictionaries represent artefacts designed to mediate between elements of the lexicon and humans seeking to understand and use them. The specific tool of mediation consists in a description and/or illustration of the meaning of a given lexical unit, which implies that the user will have to decipher (see above) the description/illustration in the hope of accessing its meaning. In terms of communication theory and technology, we can say that lexical mediation is based on complex processes of en- and decoding messages involving the dictionary maker at one end of the communicative channel, the dictionary user at the other end and the dictionary in the middle. Viewed in this way, the dictionary fulfils two separate functions, since it does not only serve as a mediator between a specific linguistic unit and the person seeking to understand it, but also as a means of communication (i. e. channel) between the dictionary maker and its user. This distinction seems important insofar as it explains why the meaning descriptions are potentially problematic: produced by a dictionary maker who might not apply the appropriate encoding strategies, these descriptions may not ensure easy decoding and thus understanding by the user. This ultimately leads to the kind of conflict reflected by the criticism described above.

What insights can be drawn from this discussion regarding the question "What is a dictionary"? Elements for an answer can be found in the underlying assessment criteria of Lew and de Schryver's comment, which, since they are oriented towards the users' needs, can be formulated in terms of general guidelines:
– a dictionary must offer easy-to-understand meaning descriptions (no deciphering necessary);
– it must be adaptable to the user's needs (no slow and painful changes);
– its contents must be a means of empowerment of the users (no authoritarian burdening with cryptic contents);
– it must be collaborative (bottom up and not top down).

This must-do list emphasizes the prescriptive dimension of certain types of metalexicographical discourse. Less salient in the original texts, it allows us to view the intertwinement of normative and descriptive discursive elements and raises the question of metalexicographical discourse as a genre. However, this aspect will not be further commented upon since it does not directly contribute to the aim of the present study.

Distinctive features of dictionaries which can be derived from the must-do list are the following:
– user-orientedness
– accessibility (easy access to linguistic forms and meanings)

- multipurpose (adaptable to users' needs)
- empowering/empowerment
- collaborative/collaboration

This non exhaustive list can be further exploited within a frame-analytical approach: It is possible to assign the listed qualities to multiple semantic frames, among which the "TOOL-frame" appears to be particularly relevant. Another frame, equally relevant, is the "LINGUISTIC MEDIATION"-frame.

Furthermore, it should be pointed out that the above-mentioned dictionary qualities do not represent mere desiderata, but that a considerable number of online databanks and tools, such as learning apps, bi- or multilingual online dictionaries as well as linguistic online portals, strive to meet these expectations by combining different elements such as a dictionary including a translation tool, a vocabulary trainer as well as grammatical exercises. This multipurpose aspect of digital tools has a direct impact on the way they are used by learners, resulting in new and sometimes problematic search- and learning strategies (see e.g. Müller-Spitzer et al. 2018)[3]. The frequent combination of different tools within one super-tool increases the complexity of metalexicographical research and discourse, making the task of defining the dictionary even more perilous.

2.2 Bilingual dictionaries and the concept of translation

When looking for ways to avoid problematic meaning descriptions, one solution appears to be using bi- or plurilingual dictionaries, since they present translations of lexical items into another language and thus seem to offer a more direct access to meaning by avoiding circular definition. But do translations really offer direct access to meaning? One of the frequently criticized aspects of bi- or plurilingual dictionaries concerns what are alleged to be insufficient or inadequate examples illustrating the various meanings of lexical items according to the contexts in which they are used. An insufficient number, or an inadequate choice, of examples can represent an important obstacle for a language learner to understand the meaning(s) and use of a lexical item in the target language. Thus, mere translations of often polysemic and/or polyfunctional words or expressions do not guarantee any direct access to meaning. This explains, morevover, why the issue of bilingual dictionaries is largely interconnected with translation issues, leading to discussions not only of different types of equivalence but also of the insufficiencies of bilingual dictionaries (for a critical overview see Gauton 2008; for a critical discussion from a functional perspective, see Tarp 2013: 425–430).

Within the field of FL learner metalexicography, i. e. the theory of how to make and use dictionaries to provide an aid or tool for learning a second or a foreign lan-

---

3 I thank Martina Nied Curcio for mentioning this aspect.

guage, translation represents a frequently discussed issue. Studies on dictionary use, for example, often compare the use of dictionaries and OTT (see above), but rarely question the usefulness of translation per se regarding the acquisition of FL competencies.

From the epistemological point of view of the present study, however, translation plays a minor role regarding the (re)definition of FL learners' dictionaries. The difficulties of learners in understanding and, consequently, learning a foreign language cannot be overcome simply through translation, since this very specialised type of activity requires a high level of lexico-grammatical, stylistic and intercultural knowledge. To the less proficient learner, the dictionary providing translational equivalents represents a mere "Nachschlagewerk" (reference tool, cf. Wiegand et al. 2020: 118) for a quick look up of isolated word forms. This assertion finds an echo in Kühn's critical judgement of a dictionary typology based on possibilities of use, which he justifies by opposing learning dictionaries ("Lernwörterbücher") to translation dictionaries ("Übersetzungswörterbücher"):

> Eine solche Typologie verdeckt die Kluft, die häufig immer noch zwischen potentiellen und tatsächlichen Benutzern bzw. Benutzeranlässen und -zielen besteht. […] Im Bereich der Schullexikographie waren die sog. mehrsprachigen Grundwortschatzbücher als Lernwörterbücher konzipiert, genutzt wurden und werden sie allerdings als rudimentäre Übersetzungswörterbücher […]. (Kühn 1989: 122)[4]

The look-up function is predominant when learners are engaged in a reception or production activity and can be associated with incidental vocabulary learning (cf. Laufer & Hulstijn 2001). Even if this form of non-intentional learning might be likely to be globally less effective compared to more awareness-raising forms (cf. Chen et al. 2021), some studies carried out on the effectiveness of incidental vocabulary learning suggest that the distinction between incidental and intentional learning is perhaps less relevant than the type of task they are associated with, such as their combination with the "construct of task-induced involvement" proposed by Laufer/Hulstijn (2001).

Regardless of the possibility that the look-up function may be detrimental to effective vocabulary learning, the discussion of factors likely to facilitate this process, such as involvement and awareness indicate that bilingual dictionaries cannot be considered as learning aids or tools on the basis of providing translational equivalents. Such an assumption would be as absurd as asserting that walking to work helps you to stay in good physical and mental health and simultaneously offering you a company car to ensure that you can get to work and back as fast as possible.

It is evident that using dictionaries merely to obtain the translation of a given word or expression defeats the object of learning a foreign language: The triumph of neural machine translation may be proof that machines can learn natural languages, but it is

---

4 English translation: Such a typology conceals the gap that often still exists between potential and actual users or user purposes and goals. […] In the field of school lexicography, the so-called multilingual elementary vocabulary books were conceived as learning dictionaries, but they were and continue to be used as rudimentary translation dictionaries.

of little use for humans pursuing the noble yet complex and laborious task of learning a foreign language. The necessity for any (human) language learner to develop their individual set of language learning skills, independently of any easy-at-hand AI-assistance, is based on the realization that quick access to translation does not equal understanding. If understanding were a simple synonym of translation, the ubiquity of digital tools and applications providing almost instant text-to-text, text-to-voice as well as voice-to-text translations would make any effort to learn another language redundant.

Hence, a distinctive feature of a FL learners' dictionary cannot be translation, but facilitating the process of understanding by providing a maximum of information on forms, functions and use of linguistic units both in the L1 and the L2. Suggestions as to how all this information could be integrated into a model of lexicographical description will be briefly presented in chapter 4. The parallel lexicographical treatment of a linguistic unit in L1 and L2 implies that equivalents are provided, but the learner will be cognitively involved by having to choose the equivalent which is most appropriate within a specific situation and context. The function as an understanding aid does not only apply to a learner's dictionary but to any kind of dictionary:

> Le dictionnaire se conçoit […] dès le début comme un instrument à la fois didactique et pédagogique dont la vocation est celle de servir d'aide à la compréhension. (González-Rey 2017: 28)[5].

The following observations and reflections will tackle the question of the role of bilingual dictionaries from the learners' point of view. This means that the notion of genuine purpose coined by Wiegand (1998: 299) is specified according to the function theory by Tarp and Bergenholtz (cf. e.g. Tarp 2013; Bergenholtz/Tarp 2003; Bergenholtz/Tarp 2002) in terms of a utility product (cf. Tarp 2013: 466) which, in the context of the present study, primarily concerns the use of dictionaries by non-specialist French native speakers studying German as a Foreign Language (GFL) at university.

3 The role of the dictionary as an aid for foreign language acquisition: Findings from an online questionnaire

The findings presented in this part are based on an online questionnaire which was created for the purpose of an exploratory study of teachers' and students' perceptions and opinions regarding the role of the dictionary as an aid for foreign language

---

5 English translation: The dictionary is […] conceived from the very beginning as an instrument that is both didactic and pedagogical, whose vocation is that of serving as an aid to understanding.

acquisition[6]. It was conducted in 2023 at the University of Lorraine (France) on a relatively small scale: A total number of 34 answers were collected after a link to the questionnaire had been sent to my students, the majority of whom attended GFL classes for non-specialists, as well as to colleagues, the majority of whom are lecturers at the English department. Since the proportion of lecturers was relatively low (32%) and only two considered themselves experts in either linguistics or applied linguistics, their answers were evaluated indifferently from the rest.

The overall aim consisted in finding out which functions and qualities are generally attributed to dictionaries, but also which aspects were perceived as flawed. For reasons linked to limited space, only two out of ten questions are presented and discussed in this context, both of which were formulated as open questions.

In addition to these knowledge-oriented targets, my personal experience as a GFL lecturer at a French university represents a driving force. Having been teaching GFL to non-specialist students for many years, one major observation is that the students' linguistic competencies evolve very slowly, and that not only their grammatical (in the traditional sense of the word) but also their lexical knowledge in terms of vocabulary tends to stagnate over the years. Neither digital/online nor print dictionaries are used to their full potential. The numerous forms of vocabulary trainers, for instance, offered free of charge by many online dictionaries, are barely known of, let alone used by the students. Dictionaries are perceived as problem solvers which they mostly consult sporadically to solve translation problems, but the results are rarely successful. Convinced that the perception of dictionaries as problem solvers represents a misconception, a number of questions developed for the questionnaire are formulated to reveal the nature of dictionaries as constructs. The first question stresses the subjectivity of the definition expected: "D'après vous, qu'est-ce qu'un dictionnaire?"[7]

The analysis of the answers leads to two interrelated findings:

a)   a relative balance between dictionary-centred and user-centred views;
b)   a shift from the langue paradigm to the parole paradigm.

The notions of user-centred (UC) vs. dictionary-centred (DC) views are the result of a qualitative analysis of recurrent phrases as well as the underpinning frames which can be grouped into three categories: UC, DC as well as a mixed category (UC/DC). The following extracts serve as examples:

1.   **UC**: *Il s'agit d'**un outil nous permettant de comprendre** le sens des mots et de nous renseigner sur ses propriétés grammaticales.* (It is **a tool that helps us understand** the meaning of the words and to gather information about their grammatical properties.)

---

2. **DC**: *Un recueil de définitions des principaux mots et expressions d'une langue donnée, avec des indications étymologiques et grammaticales sur ceux-ci, ainsi que des exemples d'utilisation en contexte.* (**A collection of definitions** of the main words and expressions of a given language containing etymological and grammatical indications as well as examples of use in context.)
3. **UC/DC**: *une source de référence utilisée pour découvrir le sens, l'orthographe, la grammaire, la traduction, etc. du mot* (**A reference source used to discover** the meaning, the spelling, the grammar, the translation etc. of a word.)

The definitions contain more or less fixed phrases recurring in the same or similar forms in other answers. The UC-view focuses on the TOOL-function with respect to the ultimate objective of understanding ("outil nous permettant de comprendre … " [tool enabling us to understand …]), whereas the DC-view is based on the frame of (LINGUISTIC) COLLECTION, which is materialized in the construction[8] *a collection of X.* This construction is extended by a series of specifications and adjunctions which can be represented schematically:

a collection of X (=*definitions*) + SPECIF *(=of the main words and expressions)* + SPECIF/ADJUNCT *(=of a given language containing Y and Y' as well as Y'' of Z)*

This schematic representation is, of course, prone to misinterpretation since it does not represent the complex hypotactic structure of the definition. It is merely meant to illustrate the assumption that this type of extension represents a recurrent pattern within metalexicographical discourse.

The third category refers to answers mixing aspects of the UC with aspects of the DC view (UC/DC). This concerns roughly a third of the collected answers (27%), compared to roughly half of them reflecting a DC view (49%) and a fourth concerning a purely UC view (24%). When taking into account the number of UC views within the mixed UC/DC category, the proportion of answers containing elements of UC views rises to 51%. Even though the same calculation results in an equally high increase of the proportion of (partially) DC views, this means, nevertheless, that a small majority of the total population considers the user as a valid parameter within a definition of the dictionary.

The third example displays a distinctly less idiomatic discourse (e.g. *source de référence* vs. *outil de référence [idiom.]*) as well as incoherent juxtapositions of linguistic categories (e.g. *le sens, l'orthographe, la grammaire, la traduction*, etc.), indicating a low degree of expertise in this field. This might be related to age and professional status (students vs. lecturers), but the phenomenon is not salient enough in the data to be further examined. The example illustrates a mixed view (UC/DC) because of a double

---

8 The notion of construction refers to the definition of "Phrasem-Konstruktion" (phraseme-construction) by Dobrovol'skij (2011), which can be paraphrased in terms of a multiword lexial unit with one or several syntactic slots, such as the one discussed here (*a collection of X*). For a discussion of theoretical and methodological issues linked to this notion, see for example Mellado Blanco/Mollica/Schafroth (2022).

focus on the dictionary as reference source and on the act of using the dictionary to discover the meaning. Table 1 provides a non-exhaustive list of recurrent phrases produced by the respondents within the two frames TOOL and (LINGUISTIC) COLLECTION:

Table 1: Phrases within the TOOL- and COLLECTION-frame.

TOOL	COLLECTION
– *un outil pour/permettant de ... (a tool for s.th./ enabling [the user] to ...)*	– *un ouvrage/livre qui recense (l'ensemble) des mots/ définitions/ ... (a work/book that lists all the words/ definitions/ ...)*
– *un outil/une aide/ ... qui permet de vérifier ... (a tool/an aid/ ... which enables [the user] to check ...)*	– *un ouvrage/livre comprenant (un grand nombre de ...) (a work/book containing a large number of ...)*
– *un outil numérique (a digital tool)*	– *un gros livre (avec la définition de tous les mots/ expressions/ ...) (a big book with a definition of all the words/expressions/ ...)*
– *un outil de référence (a reference tool)*	
– *un outil/document/une aide/ ... qui (nous) permet (à tous) de trouver/comprendre/rechercher/ ... (a tool/document/an aid/ ... enabling [us/ everyone] to find/understand/research/ ...)*	– *un livre recueillant la définition/les mots/ ... (a book containing the definitions/the words/ ...)*
– *un outil/une aide/ ... qui nous renseigne sur ... (a tool/an aid/ ... which informs us about ...)*	– *un ouvrage/livre/ ... rassemblant par ordre alphabéthique/chronologique/ ... (a work/book/ ... which usefully assembles [...] in alphabetical/ chronological order)*
– *une aide pour comprendre ... (an aid for understanding ...)*	– *un ouvrage/livre/outil qui rassemble les mots/ expressions/ ... (a work/book/tool that brings together [the] words/expressions/ ...)*
– *un outil/une aide/ ... qui permet à tous de comprendre/trouver/ ... (a tool/an aid/ ... which enables everyone to understand/find/ ...)*	– *mis en ordre alphabétique (listed in alphabetical order)*
– *un outil/un ouvrage/ ... qui nous dépanne (lorsque ...) (a tool/work/ ... that helps us out [when ...])*	
– *un outil qui (nous) sert à ... (a tool that helps us to ...)*	

It must be noted that the phrases concerning the COLLECTION-frame found in the data appear to be less idiomatic (in Sinclair's sense of the term) than the ones listed within the TOOL-frame. It is highly likely that this is due to the metalexicographical discursive frame of the dictionary-centred view, which emerged from the discussion of the construction *a collection of X* (see above). In other words, there is some evidence that this discourse produced by non-specialists represents a particular case of (non-specialist) specialist language-use.

Furthermore, it is important to point out that the mere use of the word *tool* (*outil* in French) cannot serve as a clue for the attribution of a particular sentence to either of the frames. The phrase *un outil qui rassemble les mots/expressions ...* (a tool which usefully assembles words in one place[9]) belongs to the COLLECTION-frame, since the semantic

focus does not lie on the quality of *tool* in terms of aid for the user but on its quality as usefully assembling words in one place. Since this quality refers to the dictionary as the object of the description, it can be described as dictionary-centred. The UC-construction *outil de référence* (reference tool) represents a similar case, since it is possible to produce the DC-centred assertion *un outil de référence qui rassemble les mots* (a reference tool which usefully assembles words in one place). However, the construction *outil de référence* as a basic construction should be exclusively attributed to the TOOL-frame, since reference tool contains an implicit focus on the user performing an act of referencing.

The analysis of word counts by means of the tools provided by Sketch Engine (cf. Kilgariff et al. 2014) leads to a few noteworthy findings. The French equivalent for *word* was used almost systematically in the proposed definitions: from a total of 33 responses, 28 contain the lexical item *mot* (word). Definitions of dictionaries in terms of single word lists can be seen as based on a traditional conception which comes into conflict with a phraseological approach based on Sinclair's idiom principle (see first part). But is it true that dictionary users of the digital age adhere to a traditional conception?

Before attempting an answer to this question, it should be conceded that, given that we are adopting a phraseological approach here, employing analytical methods restricted to single word counts might seem akin to shooting oneself in the foot. This is why the answer must be regarded as speculative and will be confirmed by a more detailed analysis of the users' representations based on text analytical methods. Even though only two out of 33 answers contain a reference to multiword units, language in terms of the raw material of the dictionary is not simply viewed as a system based on a clear-cut division between the lexicon (vocabulary) on the one hand and Grammar (as a set of syntactical rules) on the other. The following terms appearing frequently in the definitions provided by the respondents indicate a pragmatic approach to language, deriving meaning (Fr: *sens*) from the contexts in which they are used:

– *usage* (use)
– *exemples* (examples)
– *outil* (tool)
– *contexte* (context)
– *sens* (meaning, mostly with respect to a particular context)

The use of these terms can be attributed to a predominantly user-oriented perspective, since they occur in responses attributed to the UC category. Does this imply a possible shift from a construct centred on the language system to a construct centred on the parole? If so, this would imply a shift from translation-oriented to understanding-oriented forms of FL learning. One result is likely to temper this speculation: The word *définition* (definition), not mentioned in the list above, occurs 16 times compared to 6 times for the word *sens* (meaning/sense) used in similar contexts. The reason for the extensive use of this term is probably due to the normative effect of its omnipresence in a wide range of disciplines, which is reflected by its frequent use both in pedagogic and scientific discourse.

Nevertheless, relatively few respondents use the word *traduction* (translation) (4 out of 33), which contrasts with the high frequency of the word *définition* (16 out of 33). Interestingly, only one respondent uses *définition* explicitly as a metalexicographical term by distinguishing between monolingual, bilingual and encyclopaedic dictionary (*par thème* [organized thematically). Most respondents, however, use this word in a more general sense that could be glossed by "explaining the meaning of (a word or expression)". For reasons of space, only one example can be given here:

> *un ouvrage qui permet de trouver l'orthographe, le genre, la définition d'un mot, ainsi qu'un contexte pour le comprendre* ('a work that helps you find the spelling, gender and definition of a word, as well as the context for understanding it')

The phrase implies that the definition alone is not sufficient and needs to be completed by one or several examples of the context to ensure full understanding. This concept of understanding is closer to language in terms of parole than in terms of langue. Since neither definitions nor translations are deemed sufficient to ensure understanding, and since only few references to translation can be found in the data, this may serve as an argument in favour of the hypothesis of a (progressive) shift to the parole paradigm.

Table 2 presents the result of a qualitative textual analysis of a selection of definitions provided by the respondents. It represents a follow-up study to the initial analysis by attempting to specify the general user-category with respect to FL learners and to deepen the linguistic analysis of the definitions provided by the questionnaire. Although the dichotomy user versus dictionary is maintained, an in-depth analysis of a few expressions and phrases produced by the respondents fulfilling the arduous task of producing a personal definition of dictionary shows that the boundaries between these two categories are as fuzzy as the functional distinction between communication-orientated and knowledge-orientated lexicography (cf. Bergenholtz/Tarp 2003).

Table 2: Online questionnaire on dictionaries: Definitions by users as FL learners.

Learner-centred representations* (Communication-orientated – more or less)[10]	Dictionary-centred representations (Knowledge-orientated – more or less)
– Il s'agit d'un outil *nous permettant de comprendre* le sens des mots et *de nous renseigner* sur ses propriétés grammaticales. ('It is a tool *that enables us to understand* the meaning of words and *to learn about* their grammatical properties.')	– un *livre comprenant* un grand nombre de définition (sic!) avec des exemples, ainsi que le genre du mot ('a *book containing* a large number of definitions with examples, as well as the gender of the word')

---

10 The phrase *more or less* is a little wink to the publication "Wortverbindungen - mehr oder weniger fest" edited by Steyer (2004).

Table 2 (continued)

Learner-centred representations* (Communication-orientated – more or less)	Dictionary-centred representations (Knowledge-orientated – more or less)
– Un document (papier ou numerisé) *qui nous permet de trouver* la traduction et/ou la définition d'un mot ('A document (paper or digital) *that enables us to find* the translation and/or definition of a word.') – un livre *où l'on trouve* la définition des mots ('a book *where you can find* the definition of words') – un livre/site *pour rechercher* la definition des mots ('a book/website *for researching* the definition of words') – une aide *pour comprendre* le sens des mots ('an aid *to understanding* the meaning of words') – un ouvrage qui *permet de trouver* l'orthographe, le genre, la définition d'un mot, ainsi qu'un contexte pour le comprendre. ('A book *that helps you find* the spelling, gender and definition of a word, as well as the context for understanding it.')	– Un *ouvrage qui recense* des mots dans une langue et leur définition, parfois d'autres détails (encyclopédie, traduction ...) ('A *book that lists* words in a language and their definition, sometimes with other details (encyclopaedia, translation, etc.).') – un *support sur lequel sont recensés* les mots, les usages et les expressions d'une langue. Aussi, *il se doit d'évoluer* avec son temps et de recenser en permanence. Il n'a pas de visée didactique. ('a *medium for recording* the words, usages and expressions of a language. It must evolve with the times and be *constantly updated*. It is not intended for didactic purposes.') – un *gros livre avec* la définition de tous les mots ('a *big book with* definitions of all the words') – Un *livre recueillant* la définition de tous les mots. ('A *book that contains* the definitions of all the words.') – *ouvrage didactique déterminant* les caractéristiques d'un mot, expression ... un outil ('a *teaching aid that determines* the characteristics of a word, expression ... a tool') – Un *livre rassemblant* par ordre alphabétique les mots utilisés par une langue et *qui apporte* une définition ('A *book that alphabetises* the words used in a language and *that provides* a definition.')

*(My italics.)

The following comment concentrates on three questions:

1) Which discursive elements can serve as criteria for a distinction between user- (i. e. learner-) centred and dictionary-centred representations?
2) To what extent do the definitions consider the FL learning situation?
3) To what extent does the distinction between UC- and DC-representations coincide with a distinction between communication and knowledge oriented lexicographic functions?

Regarding question 1:

Basic elements for a distinction between the above-mentioned categories can be rephrased in terms of semantic (topical) and/or syntactical focusing on the user/ user's actions or the dictionary/dictionaries' actions. Regarding the dictionary-centred

representations, syntactical and topical focusing generally coincides, meaning that the object of the definition, i.e. the dictionary, is the syntactic subject of the sentence. The user- (i.e. learner-) centred representations, however, are essentially based on topical focusing, since the syntactic subject of the sentence remains the dictionary. Two major criteria for the identification of a topical focus on the user/learner consist in:

a) explicit or implicit mentions of the user, mostly by means of a third-person-pronoun;
b) a verb phrase referring to the user's action.

In principle, any sentence based on a verb phrase referring to the dictionary user's actions can be described as potentially user-centred.

The verb phrases occurring in the column attributed to the learner-centred representations can be directly linked to the LEARNING-frame, defined as a multistep-process based on a series of cognitive strategies of meaning-construction:

1. *permettre à qn de rechercher qc* ('to enable s.o. to search for/research s.th.'),
2. *permettre à qn de trouver* ('to enable s.o. to find s.th.'),
3. *permettre à qn de comprendre qc* ('to enable s.o. to understand s.th.').

The progressive character of these three steps can be related to a didactic theory of language teaching and learning, namely the three- and four-step-models developed by Kühn (1992) and extended by Lüger (1997) within the framework of phraseodidactics (cf. conclusion). Within this didactic context, the TOOL-frame discussed above represents a particular aspect of the LEARNING-frame.

Regarding question 2:
Does the attribution of definitions produced by mostly non-expert dictionary users to the LEARNING-frame imply that these users had consciously considered the learning-situation? There is reason for some doubt since direct references to the situation are scarce. Interestingly, it is within the dictionary-centred representations that direct references to teaching and learning can be found: *It is not intended for didactic purposes/ [it is] a teaching aid* (English translations, see above). At first sight, these two assertions seem to contradict each other. However, the first concentrates on the intentional aspect of lexicographic work designed for a particular purpose, namely didactic. The second is based on the TOOL-frame: *a teaching aid that determines the characteristics of a word, expression ... a tool.* It remains unclear whether the tool-metaphor implies intentionality on behalf of the lexicographer. Nevertheless, the systematic references to cognitive strategies of meaning-construction within the UC-representations as well as the frequent use of terms such as *definitions* in both types of discourse imply an overall awareness of the dictionary as a medium which can either help understand (-> UC) or provide understanding (-> DC).

Regarding question 3:

According to Bergenholtz/Tarp (2003), two major types of user situations can be distinguished: the knowledge-orientated and the communication-orientated (Bergenholtz/Tarp 2003: 173–174). Their definitions appear to coincide with the distinction UC vs. DC. The knowledge-orientated situation is defined as follows:

> [...] situations where the user for one reason or another wants to obtain additional information on some topic, e.g. general cultural and encyclopaedic information, specialised information regarding a scientific discipline (biology, geology etc.) or information about a specific language related to the language-learning process (for example the learning of a foreign language) (Bergenholtz/Tarp 2003: 173)

In this type of user situation, dictionaries are construed as active providers of information: They dispense knowledge directly to their users, who consult them as they would consult a wise man or woman, or, alternatively, a teacher. This representation corresponds to models of teaching frequently described as teacher-centred and assimilated to a transmissive[11] mode of teaching (cf. e.g. Puren 1995; Liu/Lin/Zhang 2017). There is a certain resemblance between the terms used by Bergenholtz and Tarp to describe the knowledge-orientated situation and the terminology appearing in the dictionary-centred discourse listed above: In one definition, the term "encyclopedia" is mentioned, and most of the definitions contain phrases which accentuate the technicity as well as the extensiveness of lexicographical information in terms of number and size: *a book containing **a large number** of definitions/a **big book** with definitions of **all** the words/ contains the definitions **of all the words**/A **book that alphabetises** the words used in a language and **provides** a definition* (English translations, emphasis added by me). These phrases present lexicographic information as a result of systematic recording of vast amounts of linguistic material.

Moreover, the number of references to the dictionary in terms of a book is particularly high within this category, and digital types are rarely mentioned. This could explain why there is a tendency to emphasise the question of systematic organisation of entries, mostly in terms of alphabetisation.

Does this mean, however, that dictionary-centred, knowledge-orientated definitions reflect a traditionalist and normative view on language and language learning? Some respondents consider dictionaries as tools which must be adapted to the users' needs: *It must evolve with the times and be constantly updated* (see above). Amongst

---

11 The notion of transmissive teaching can be viewed as a pedagogical belief or construct. In a literature review by Liu/Lin/Zhang (2017), the notion is frequently assimilated to traditional teaching in opposition to constructivist teaching and learning: "Teachers holding traditional (hereafter, *transmissive*) pedagogical beliefs tend to act as authorities in the classroom and to organize teacher-centered activities aimed at transmitting knowledge. [...] While transmissive and constructivist pedagogies might seem to be polar opposites, a given teacher's pedagogical beliefs cannot, in reality, be categorized solely as either. Rather, there is significant evidence that teachers can and do simultaneously hold these seemingly contradictory pedagogical beliefs, [...]" (ibid.: 3–4).

the collected answers described in terms of a mixed UC/DC-category (see above), many contain dictionary-centred phrases by simultaneously adopting the user's point of view:

– *Un ouvrage qui doit recenser les mots, leurs sens et leurs usage [sic!] et non pas imposer un usage (comme le fait l'académie française).* ('A work that should list words, their meanings and uses, and not impose a usage (as the Académie française does).')

– *Document de recherche des définitions, étymologie, nature des mots[.]* ('Research document on definitions, etymology and the nature of words.')

In both cases, the object of the definition, i. e. the dictionary, coincides with its syntactic function as subject of the phrase (= dictionary-centred). Simultaneously, however, the thematic focus reflects the user's point of view: By insisting that the dictionary should content itself in listing words, their meanings and uses "and not impose a usage (as the Académie française does)", the user (re-)assigns the ultimate authority not to the work but to themselves. In the second example, the definition of the dictionary in terms of a research document reflects the user's point of view in a similar way: it is not the document itself which does the research but the user. Therefore, dictionary-centred representations cannot be necessarily regarded as naively assigning authority to the knowledge provided, despite an inherent affinity to transmissive models of learning. Ultimately, categorisations in terms of either user- versus dictionary-orientation, or communication- versus knowledge-orientation, can only be viewed in terms of degree (hence the addition of the attenuating more or less to the categories in Table 2).

Communication-orientated user situations are defined as follows by Bergenholtz/ Tarp (2003):

> [...] where there is an existing – or planned – written or oral communication going on between two or more persons and where the lexicographer only intervenes indirectly (through the dictionary) when some kind of communication problem may pop up that can be solved by consulting a dictionary. This group of user situations is called communication orientated (Bergenholtz/Tarp 2003: 174)

The reference to the lexicographer in this definition can be misleading since communication-orientedness is not primarily a question of the degree to which dictionary makers are implied or not. Basically, it is not a question of who the participants involved are, or how many there are of them, but rather which types of communication-orientated activities the users are engaged in. Bergenholtz/Tarp (2003) refer to this aspect in terms of "a very simple model of communication" according to which "communication between two or more persons is made up by the production and reception of texts" (p. 174).

Conceiving communication in terms of types of communicative activities such as the reception and production of oral or written texts is essential, as it constitutes the theoretical and methodological basis of foreign language teaching and learning of the "Common European Framework of Reference for Languages" (CEFR, cf. https://www.coe.int/en/web/common-european-framework-reference-languages).   Task-orientation

and language use as social action constitute key concepts, as formulated in the CEFR companion volume (2020):

> The methodological message of the CEFR is that language learning should be directed towards enabling learners to act in real-life situations, expressing themselves and **accomplishing tasks** of different natures. [...] This is not educationally neutral. It implies that the **teaching and learning process is driven by action**, that it is **action-oriented**. [...] It also implies recognising the **social nature of language learning and language use**, namely the interaction between the social and the individual in the process of learning. Seeing learners as language users implies extensive use of the target language in the classroom – learning to use the language rather than just learning about the language (as a subject)." (CEFR 2020: 29–30) (Characters in bold added by me).

The application of these key concepts to the learner-centred representations in Table 2 appears relatively easy insofar as the definitions listed under this category are activity-oriented and imply tasks: *It is a tool that enables us to understand the meaning of words and to learn about their grammatical properties; A document [...] that enables us to find the translation and/or definition of a word* (English translations). However, learner-centred representations of the dictionary in combination with communicative tasks do not exclude activities that are knowledge-orientated. The above-mentioned examples include seeking out information about grammatical properties, as well as the translation and/or definition of a word.

The decisive criterion enabling us to distinguish between communication- and knowledge-orientation can be described as task-oriented dictionary consultation, on the condition that task is conceived within an action-oriented approach to language learning and teaching. This implies that the task is invested with a social dimension and accomplished by means of communicative reception or production activities. Hence, dictionary consultation that is primarily directed at obtaining knowledge does not represent a task-oriented activity, unless it is directly associated with reception or production activities. Yet, the boundaries between these categories remain fuzzy, as shown above and as shown by means of a last example:

> *un outil qui nous dépanne lorsque l'on bloque sur le sens d'un mot, un outil pour vérifier l'orthographe, un outil pour vérifier ce que l'on pense être juste* ('**a tool to help us out** when we get stuck on the meaning of a word, **a tool to check** spelling, **a tool to check** what we think is right')

On the one hand, the repeated use of the tool-metaphor indicates an essentially dictionary-centred, knowledge-orientated approach to language learning, since it is paired with a double focus on the dictionary, both grammatically and thematically. On the other hand, the lexical meaning of the main verbs ("to help us out", "to check") points towards a communication-orientated user situation, since they imply that the user is directly involved in either a translation or a text production activity ("check spelling", "check what we think is right").

4 Conclusion: From the lexicon to the phrasicon

Which lessons can be drawn from the analysis of user-definitions regarding a re-definition of the FL learners' dictionary? The fuzziness of the boundaries between different types of user situations as well as different ideas that people have of what a dictionary really is can be seen as a reflection of rival models of language learning: one which is based on a transmissive, teacher- and knowledge-centred model, and one which is based on a learner- and communication-centred model. No clear answer to the question regarding the role of the dictionary as an aid for language learning can be derived from the previous analysis. Could it be possible that the right question has not been asked yet?

Regardless of the existence of partially rival didactic theories, a concept of language acquisition in terms of a multistep process emerges directly from the data (cf. the three- and four-step models by Kühn 1992 and Lüger 1995 mentioned above). Hence, the question should be: What is the FL dictionary's role with respect to learning conceived as a multistep cognitive process?

The answers given to the last question of the questionnaire provide some clues. Centred on the users' point of view, the phrasing of this question was designed to induce a response reflecting what they would consider to be an ideal dictionary: "Le dictionnaire selon vous … " ('The dictionary according to you … '). As this phrasing also induces a definition, the respondents are forced to recur to similar discursive patterns as for the first question.

The following examples are representative of the collected answers insofar as they explicitly refer to the user's needs, namely the need to acquire a better understanding of how and in which contexts to use words:

– *Un dictionnaire qui expliciterait les contextes où un mot peut être utilisé, avec des exemples clairs et une définition qui l'est tout aussi.* ('A dictionary that explains the contexts in which a word can be used, with clear examples and an equally clear definition.')
– *Un dictionnaire avec plus de transcriptions phonétiques et qui met plus en avant les contextes car parfois on est perdus et on ne sait pas trop comment utiliser un mot* ('A dictionary with more phonetic transcriptions and that puts more emphasis on contexts, because sometimes we get lost and don't really know how to use a word.')
– *un dictionnaire qui donne la définition du mot, sa prononciation, ses usages dans des phrases (c'est à dire qu'il combinerait dictionnaire et livre de vocabulaire avec mise en contexte grammatical et culturel).* ('a dictionary that gives the definition of the word, its pronunciation and how it is used in sentences [in other words, it would combine a dictionary and a vocabulary book with grammatical and cultural context]').

Since understanding difficulties are primarily imputed to insufficient contextual information, the dictionary's major role consists in providing this information. Most recent

dictionaries, both print and online, strive to present examples of use, intended to illustrate the polysemic nature of linguistic units. Despite ever growing lists of example sentences, facilitated by the advantages of digital processing and AI translation, many FL learners continue, however, to complain about the dictionaries' insufficiencies. Why is this so?

One approach to the question might be to consider the (in-)adequacy of ever-growing databases of example sentences to the specific learning situation of a FL learner. For example, is it helpful for a French learner of GFL to be provided with the following example illustrating the use of the phraseological expression *in der Tat:*

> Zwar impliziert in der Tat auch umgekehrt die (strikte) Konvexität von, dass jede repräsentierende Nutzenfunktion (strikt) quasikonkav ist.[12] (cf. PONS: https://de.pons.com/%C3%BCbersetzung/deutsch-franz%C3%B6sisch/in+der+Tat)

This sentence appears to have been automatically extracted from *Wikipedia* (de.wikipedia.org) and is almost impossible to understand, even for a German native speaker. Apart from missing information regarding the discursive context in which this sentence occurs, the complexity of the vocabulary, as well as the semantic and syntactic incoherence of the preposition *von* (of), render the entry completely inadequate for the purpose of FL learning. The example above is not only problematic in terms of the discursive, lexical and syntactic inadequacy of the sentence, but also with respect to the overall absence of a coherent lexicographical concept: its (potential) role as part of a FL learners' dictionary is severely jeopardised.

If we conceive this type of dictionary not only as an information tool, adopting thereby a knowledge-orientated position, but also as a learning tool, we will have to integrate a didactic component. The role of the dictionary, and ultimately of the dictionary makers, should consist in engaging the users in the FL learning process by assigning them parts of the role usually attributed to the lexicographer: by providing a corpus of preselected phraseological units together with various examples of use, as well as a few analytical categories adapted to the learners' needs, this kind of dictionary could be an incentive for the learner to develop the competencies which are essential for effective language learning[13].

Some elements for a theoretical foundation of a phraseopragmatic dictionary can be found in Lüger (2023):

> Was die Vorgehensweise bei der Vermittlung phraseologischer Einheiten betrifft, kann man – an Kühn (1992) anschließend – folgende Phasen oder Arbeitsschritte unterscheiden: Feststehende Ausdrücke müssen zunächst als solche erkannt, in ihrer Textumgebung identifiziert werden. Das Entschlüsseln der Bedeutung, das Verstehen der pragmatischen Funktionen im gegebenen Ver-

---

12 Given the syntactic incongruence of the sentence, the English translation is rather approximative: *In fact, the (strict) convexity of [...?] implies that every representing utility function is (strictly) quasiconcave.*
13 This concept was first outlined in Smith (2022).

wendungszusammenhang wäre der nächste Schritt, wobei die Konsultation eines Wörterbuchs oft unumgänglich ist.[14] (Lüger 2023: 51)

Within his four-step-model for teaching (and learning) phraseological units, Lüger attributes a central role ("zentrale Rolle", cf. ibid.: 52) to the step dedicated to understanding ("Verstehen"), conceived as a complex process (cf. ibid.). Considering it necessary for the learner to acquire better understanding of phraseological units partially through the analysis of their use in texts, he refers to dictionaries as aids ("Hilfsmittel", ibid.: 53) that can contribute to the development of a methodical feel for in-depth example analyses (cf. ibid.). The role of the dictionary as an aid is thus twofold: it helps the learners to grasp the meaning of an expression and contributes to the development of their overall analytical competencies.

To conclude, the following rough outline of some elementary ideas for a future GFL dictionary will address three of the major issues discussed in chapters 1 to 3 by attempting to:

(1) put into practice the paradigm shift from the single-word perspective to the phraseological perspective advocated by Sinclair (cf. chapter 1);
(2) deconstruct the concept of translation providing direct access to meaning (cf. chapter 2);
(3) overcome the alleged dichotomies between user- versus dictionary-centredness and communication- versus knowledge-orientedness (see chapter 3).

Regarding the first aspect (1): This dictionary is conceived in terms of a phrasicon[15] within a usage-based approach. This implies that lexicographical description of meaning considers the interrelations between all linguistic and extralinguistic aspects of communication, thereby contributing to raising the FL learner's awareness of the multifaceted aspect of meaning.

Regarding the second aspect (2): By adopting a contrastive approach, the risk of recurring to word-for-word translation can be diminished. The presentation of comparable examples of use in L1 and L2 contributes to develop the learners' analytical competencies with respect to the intricate interplay of formal, functional, cultural, interactional and discursive aspects of language. Thus, the construction of meaning becomes a multistep process requiring the learner's semantic involvement (see chapter 2; cf. Nied Curcio 2015: 456; Dziemianko 2012: 332).

---

14 English translation: *As far as the procedure for teaching phraseological units is concerned, the following phases or steps can be distinguished, following Kühn (1992): Fixed expressions must first be recognised as such and identified in their textual environment. The next step would be to decode the meaning, to understand the pragmatic functions in the given context of use, in which consultation of a dictionary is often unavoidable.*

15 The notion of a phrasicon has recently been revived (see e.g. Granger 2009; Singleton 2021). One of the earliest occurrences as a lexicographical term appears in the "Florilegivm Phrasicon" (Huise/Ross 1650).

Regarding the third aspect (3): The phraseological units of this phrasicon will be pragmatic, targeting specific routine formulae primarily fulfilling communicative functions.[16] The essentially pragmatic nature of these units draws the users' attention to questions related to communicative tasks, such as the question of how to express one's opinion appropriately. This kind of question reduces the relevance of distinctions such as communication- versus knowledge-orientation, since the learner will seek access to both general information (e.g. syntactic and prosodic structure, cultural conventions) and to the use and meaning of a given phraseological unit in a specific context.

Finally, this type of dictionary is not a learning, but a learners' dictionary, since the method of learning depends on the way the learners develop their own strategies for researching, finding, and finally understanding the linguistic phenomena they are confronted with. After all, lexicology and phraseography are "a matter of understanding" (cf. Schafroth 2014).

5 Bibliography

5.1 Monographs and articles

Bergenholtz, Henning/Tarp, Sven (2002): Die Moderne Lexikographische Funktionslehre. In: *Lexicographica* 18, 253–263 [<https://doi.org/10.1515/9783484604476.253; last access: 15.04.2024].

Bergenholtz, Henning/Tarp, Sven (2003): Two Opposing Theories: On H.E. Wiegand's Recent Discovery of Lexicographic Functions. In: *Hermes* 31, 171–196 [https://tidsskrift.dk/her/article/view/25743/22656; last access: 15.04.2024].

Bielińska, Monika (2009): Lernerwörterbücher. Terminologischer Pluralismus, Begriffschaos und Typenvielfalt. In: Fontańskiego, Henryk/Molenckiego, Rafal/Wolińskiej, Olga (eds.): *W kręgu teorii : studia językoznawcze dedykowane profesorowi Kazimierzowi Polańskiemu in memoriam*. Katowice: Wydawnictwo Uniwersytetu Śląskiego, 30–40.

CEFR = *Common European Framework of Reference for Languages* (2020): *Learning, Teaching, Assessment: Companion Volume*. Strasbourg: Council of Europe Publishing [https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4; last access: 24.04.2024].

Chen, Shuang/Min, Tang/Mingdan, Zheng (2021): Incidental Acquisition and Intentional Learning in Second Language Acquisition. In: *2021 International Conference on Public Relations and Social Sciences (ICPRSS 2021)*. Kunming, China: Atlantis Press, 475–483 [https://doi.org/10.2991/assehr.k.211020.202; last access: 16.04.2024].

Dobrovol'skij, Dmitrij (2011): Phraseologie und Konstruktionsgrammatik. In: Lasch, Alexander/Ziem, Alexander (eds.): *Konstruktionsgrammatik III. Aktuelle Fragen und Lösungsansätze*. Tübingen: Stauffenburg, 110–130.

Dziemianko, Anna (2012): On the Use(Fulness) of Paper and Electronic Dictionaries. In: Granger, Sylviane/ Paquot, Magali (eds.): *Electronic Lexicography*. Oxford: Oxford University Press, 319–342.

---

16 Information about the precise nature of the formulae in question can be found in Smith (*forthcoming*).

Gauton, Rachélle (2009): Bilingual Dictionaries, the Lexicographer and the Translator. In: *Lexikos* 18:1, 106–118 [https://doi.org/10.5788/18-0-479; last access: 18.04.2024].

González-Rey, Ma Isabel (2017): Le dictionnaire phraséodidactique: sa place dans la didactique de la phraséologie. In: *Studii de lingvistică (Oradea, Romania)* 7, 27–44.

Gouws, Rufus H., et al. (2013) (eds.): *Dictionaries. An International Encyclopedia of Lexicography. Supplementary Volume: Recent Developments with Focus on Electronic and Computational Lexicography.* Berlin/Boston: De Gruyter Mouton.

Granger, Sylviane (2009): Commentary on Part I: Learner Corpora: A Window onto the L2 Phrasicon. In: Barfield, Andy/Gyllstad, Henrik (eds.): *Researching Collocations in Another Language*. London: Palgrave Macmillan, 60–65.

Hausmann, Franz Josef (1991): Typologie der zweisprachigen Spezialwörterbücher. In: Hausmann, Franz Josef, et al. (eds.): *Wörterbücher – Dictionaries – Dictionnaires. Ein internationales Handbuch zur Lexikographie*, vol. 3. Berlin/New York: De Gruyter Mouton, 2877–2881.

Hausmann, Franz Josef, et al. (1989–1990–1991) (eds.): *Wörterbücher – Dictionaries – Dictionnaires. Ein internationales Handbuch zur Lexikographie*, vol. 1–3. Berlin/New York: De Gruyter Mouton.

Heid, Ulrich (2013): The Impact of Computational Lexicography. In: Gouws, Rufus H., et al. (eds.): *Dictionaries. An International Encyclopedia of Lexicography. Supplementary Volume: Recent Developments with Focus on Electronic and Computational Lexicography*. Berlin/Boston: De Gruyter Mouton, 24–30.

Kühn, Peter (1989): Typologie der Wörterbücher nach Benutzungsmöglichkeiten. In: Hausmann, Franz Josef, et al. (eds.): *Wörterbücher. Ein internationales Handbuch zur Lexikographie*, vol. 1. Berlin/New York: De Gruyter Mouton, 111–127.

Kühn, Peter (1992): Phraseodidaktik. Entwicklungen, Probleme und Überlegungen für den Muttersprachenunterricht und den Unterricht DaF. In: *Fremdsprachen lehren und lernen* 21, 169–189.

Laufer, Batia/Hulstijn, Jan (2001): Incidental Vocabulary Acquisition in a Second Language: The Construct of Task-Induced Involvement. In: *Applied Linguistics* 22:1, 1–26 [https://doi.org/10.1093/applin/22.1.1; last access: 24.04.2024].

Lew, Robert/de Schryver, Gilles-Maurice (2014): Dictionary Users in the Digital Revolution. In: *International Journal of Lexicography* 27, 351–359 [https://doi.org/10.1093/ijl/ecu011; last access: 28.03.2024].

L'Homme, Marie-Claude/Cormier, Monique C. (2014): Dictionaries and the Digital Revolution: A Focus on Users and Lexical Databases. In: *International Journal of Lexicography* 27:4, 331–340 [https://doi.org/10.1093/ijl/ecu023; last access: 28.03.2024].

Liu, Haixa/Lin, Chin-Hsi/Zhang, Dongbo (2017): Pedagogical beliefs and attitudes toward information and communication technology: a survey of teachers of English as a foreign language in China. In: *Computer Assisted Language Learning* [https://doi.org/10.1080/09588221.2017.1347572; last access: 18.04.2024].

Lüger, Heinz-Helmut (1997): Anregungen zur Phraseodidaktik. In: *Beiträge zur Fremdsprachenvermittlung* 32, 69–120.

Lüger, Heinz-Helmut (2023): Phraseopragmatische Aspekte in der Fremdsprachenvermittlung. In: Mückel, Wenke (ed.): *Didaktische Perspektiven der Phraseologie in der Gegenwart*. Berlin/Boston: De Gruyter, 33–60.

Mellado Blanco, Carmen/Mollica, Fabio/Schafroth, Elmar (2022) (eds.): *Konstruktionen zwischen Lexikon und Grammatik. Phrasem-Konstruktionen monolingual, bilingual und multilingual*. Berlin/Boston: De Gruyter.

Müller-Spitzer, Carolin, et al. (2018) (eds.): *Correct Hypotheses and Careful Reading Are Essential: Results of an Observational Study on Learners Using Online Language Resources*. In: *Lexikos* 28, 287–315 [https://doi.org/10.5788/28-1-1466; last access: 18.04.2024].

Nesi, Hilary (2012): Alternative E-Dictionaries: Uncovering Dark Practices. In: Granger, Sylviane/Paquot, Magali (eds.): *Electronic Lexicography*. Oxford: Oxford University Press, 363–378.

Nied Curcio, Martina (2015): Wörterbuchbenutzung und Wortschatzerwerb. Werden im Zeitalter des Smartphones überhaupt noch Vokabeln gelernt? In: *Informationen Deutsch als Fremdsprache* 42:5, 445–468 [https://doi.org/10.1515/infodaf-2015-0504; last access: 12.03.2024].

O'Neill, Errol M. (2019): Online translator, dictionary, and search engine use among L2 students. In: *CALL-EJ: Computer-Assisted Language Learning–Electronic Journal* 20:1, 154–177.

Puren, Christian (1995): La problématique de la centration sur l'apprenant en contexte scolaire. In: *Études de Linguistique Appliquée* 100, 129–149.

Schafroth, Elmar (2014): Eine Sache des Verstehens: Phraseme als Konstruktionen. Ihre Beschreibung in der Lexikographie Französisch/Deutsch. In: Domínguez Vázquez, Marie José/Mollica, Fabio/Nied Curcio, Martina (eds.): *Zweisprachige Lexikographie zwischen Translation und Didaktik*. Berlin/Boston: De Gruyter, 83–112.

Sinclair, John (2008): *[Envoi]*: The phrase, the whole phrase, and nothing but the phrase. In: Granger, Sylviane/Meunier, Fanny (eds.): *Phraseology. An Interdisciplinary Perspective*. Amsterdam, Philadelphia: John Benjamins, 407–410.

Singleton, David (2021): Phrasicon, Phrase, Phraseology. In: Granger, Sylviane (ed.): *Perspectives on the L2 Phrasicon: The View from Learner Corpora*. Bristol, Blue Ridge Summit: Multilingual Matters, 235–244.

Smith, Anja (2022): Lexicographie bilingue des "actes de langage stéréotypés": la question du sens. In: *Langages* 225, 113–125.

Smith, Anja (forthcoming): Expressions of Opinion Produced by French Learners of German as a Foreign Language. An Exploratory Corpus Analysis. In: *Korpora Deutsch als Fremdsprache* 2 (1) [(Juli 2024, ISSN 2749-4411], [24 pp.].

Steyer, Kathrin (2004) (ed.): *Wortverbindungen – mehr oder weniger fest*. Berlin/Boston: De Gruyter.

Tarp, Sven (2013): Lexicographic Functions. In: Gouws, Rufus, et al. (eds.): *Dictionaries. An international dictionary of lexicography. Supplementary volume: recent developments with focus on electronic and computational lexicography*. Berlin/Boston: De Gruyter Mouton, 460–468.

Wiegand, Herbert Ernst (1998) (ed.): *Wörterbuchforschung: Untersuchungen zur Wörterbuchbenutzung, zur Theorie, Geschichte, Kritik und Automatisierung der Lexikographie*, vol. 1. Berlin/New York: De Gruyter.

Wiegand, Herbert Ernst, et al. (2020) (ed.): *Wörterbuch zur Lexikographie und Wörterbuchforschung = Dictionary of lexicography and dictionary research: mit englischen Übersetzungen der Umtexte und Definitionen sowie Äquivalenten in neun Sprachen/with English translations of the outer texts and definitions as well as equivalents in nine languages*, vol. 3: *I–U*. Berlin/Boston: De Gruyter.

Zimmer, Ben (2014): Lexicography 2.0: Reimagining Dictionaries for the Digital Age. In: *Dictionaries: Journal of the Dictionary Society of North America* 35:1, 275–286 [https://doi.org/10.1353/dic.2014.0002; last access: 22.03.2024].

5.2 Dictionaries and tools

DeepL Translate. [https://www.deepl.com/translator; last access: 19.04.2024].

Google Translate. [http://translate.google.com; last access: 18.04.2024].

Huise, John/Ross, Alexander (1650): *Florilogivm phrasicon, or a survey of the Latin tongue, according to the elegancy of its proper dialect: necessary for all young students in the same for their better imitation, and practice thereof, either by their voice or pen*. Ed.: Proquest (Early English Books Online). London: (R.N. for W. Garret).

Kilgariff, Adam, et al. (2014): The Sketch Engine: ten years on. In: *Lexicography*, 7–36. [http:www.sketchengine.eu; last access: 24.03.2024].

Pons Online Wörterbuch [https://de.pons.com/%C3%BCbersetzung/deutsch-franz%C3%B6sisch; last access: 21.04.2024].

Yukio Tono and Naho Kawamoto

Developing and calibrating "Can do" descriptors for dictionary use by EFL learners using the Rasch model

Abstract: This study developed a "can do" list of dictionary skills for English language learners and tested item difficulty using the Rasch model. The list, based on the Common European Framework of Reference for Languages (CEFR), aimed to prototype and validate skill levels similar to CEFR. It selected descriptors through a literature review spanning 30 years, focusing on encoding and decoding activities across four stages. A questionnaire based on these descriptors was completed by 223 Japanese university students learning English. After classifying items into "can do" and "can't do" categories using a dichotomous model, the Rasch analysis was used to assess item difficulties and perform fit analysis. The partial credit model was then applied for a more precise analysis. Results indicated instability in interpreting item difficulty but proved promising in estimating dictionary skill difficulty. Future work involves revising misfit items to enhance descriptor coherence for learners.

1 Introduction

The field of dictionary user needs and skills analysis has gradually developed since the 1980s, with various empirical studies (e.g., Tono 2001) and a seminal summary paper in the field (Nesi 2015) being published. This development was largely spurred by the emergence of the so-called Big 5,[1] English monolingual learners' dictionaries, accompanied by a flourishing body of empirical research employing English learners as subjects (see Nesi (2015) for a review). Conversely, European dictionary use research has not solely focused on foreign language learners but has encompassed a broader audience,

---

1 *Oxford Advanced Learner's Dictionary* (OALD), *Longman Dictionary of Contemporary English* (LDOCE), *Collins COBUILD English Dictionary* (COBUILD), *Cambridge International Dictionary of English* (CIDE), and *Macmillan English Dictionary for Advanced Learners* (MEDAL).

Note: This paper is a revised version of the presentation given at the AILA 2023.

Yukio Tono and Naho Kawamoto, Tokyo University of Foreign Studies

including general users, interpreters, and translators (Atkins/Varantola 1997; Kosem et al. 2019).

In tandem with the evolution of these research domains, the learning environments in which users are situated have undergone significant transformations. The advent of the Big 4 in 1995 catalysed a resurgence in the market for printed dictionaries. Notably, within the realm of English learner's dictionaries, Harold E. Palmer and A.S. Hornby, British educators invited to enhance English language education in Japan, made considerable contributions. Their early research on vocabulary selection, collocation, etc., culminated in the development of the *Idiomatic Syntactic English Dictionary* in 1943. Subsequently, this work was re-published by Oxford University Press, evolving into the globally acclaimed *Oxford Advanced Learner's Dictionary* (OALD). Consequently, the global market for dictionaries catering to English language learners experienced a significant boom (Cowie 2000).

The 2000s witnessed an explosive expansion in internet usage, precipitating a shift from paper to electronic media for dictionaries. In Japan, the market for pocket electronic dictionaries underwent rapid expansion from the 1990s onwards, with the market size peaking at nearly one million units per year from 2000 to the late 2010s. While the merits and drawbacks of transitioning from paper to electronic dictionaries were debated (Koyama 2013; Lew 2013), the omnipresence of the internet led to the commonplace practice of accessing online dictionaries via smartphones or tablet PCs. This shift in interface fundamentally altered how users interact with dictionary information, necessitating a re-evaluation of pertinent variables within the field and a reexamination of critical issues.

In the 2020s, the widespread adoption of smartphones, machine translation tools such as DeepL, and the emergence of generative AI, represented by ChatGPT, have precipitated changes that have reverberated throughout the foundations of language education. While the relationship between these new information technologies and dictionary information warrants future discussion, the most immediate concerns in language education revolve around delineating the requisite skills, objectively defining the language competencies to be acquired, determining which should be internalized as inherent abilities, and discerning which aspects should be supplemented by AI and other tools to achieve educational objectives.

In parallel with the growing need to clearly define language competence, the Common European Framework of Reference for Languages (CEFR, hereafter) was published by the Council of Europe in 2001. The CEFR has since played an important role as a generic framework for foreign language learning, teaching, and assessment. It was designed for the first time as a generic "descriptive tool," detailing the skills and levels to be achieved across languages. In the updated 2020 version called the Companion Volume (CEFR/CV, henceforth), the main framework consists of seven major common reference levels: Pre-A1, A1, A2, B1, B2, C1, and C2, encompassing the areas of communicative language activities: reception, production, interaction, and mediation. The descriptions of what language users can do in a given skill at each level are defined

using so-called "can do" descriptors. These "can do" descriptors are statistically determined in terms of their difficulty order.

Another feature of the CEFR is that, while defining communicative language activities, it also provides a detailed definition of the strategies used to perform these activities. Using this framework, we argue that it is possible to incorporate dictionary reference skills as part of the learning strategies. As will be discussed in the literature review, the current CEFR does not address the use of supplementary materials and references in detail. To address this gap, this study aims to create a set of new "can do" descriptors for dictionary use using the CEFR. In this way, dictionary reference skills can be redefined within the context of the CEFR. Furthermore, these dictionary reference skills can be linked to the CEFR language activities and levels as learning strategies, and can be used to investigate new dictionary skills in the evolving online learning environment.

To achieve these objectives, Kawamoto/Tono (2023) conducted a comprehensive literature review of previous studies on dictionary users. They extracted the main dictionary search skills for learning foreign languages, especially English, and created a tentative list of "can do" descriptors for dictionary use (see Section 2.3 for a summary). Next, these descriptors went through questionnaires administered to 223 participants to determine their confidence in performing each "can do" skill. This study presents the results of calibrating these descriptors based on the "can do" questionnaire responses, using Rasch analysis similar to that conducted by the CEFR.

2 Review

Here we will review the basic characteristics of "can do" descriptors (2.1) and how dictionary skills are treated in the CEFR descriptors (2.2). Section 2.3 summarises the making of the "can do" descriptor list for dictionary use reported in Kawamoto/Tono (2023).

2.1 Illustrative "can do" descriptors and dictionary reference skills

According to the CEFR-CV (2020), the idea of scientifically calibrating "can do" descriptors to a scale of levels comes originally from the field of professional training for nurses. It says, "what was needed was a systematic, informed observation by an expert nurse, guided by short descriptions of typical nursing competence at different levels of achievement." (ibid, p. 35) This "can do" approach was transferred to language teaching and learning in the work of the Council of Europe and nowadays "can do" descriptors are applied to more and more disciplines in many countries in what is often referred to as a competence-based approach.

While the CEFR provides comprehensive specifications for different aspects of communicative language activities, communicative language competence, and communication and learning strategies, there is a notable gap when it comes to describing the skills required for utilizing reference materials, particularly dictionaries, for receptive and productive language activities. Although the original CEFR (2001) briefly acknowledged the importance of dictionary use within the Ability to learn (*savoir apprendre*) category, it provided limited details on how dictionaries should be effectively employed in language learning processes. The descriptors pertaining to dictionary skills were scattered throughout the CEFR and lacked specificity in terms of the types of information that learners should activate when utilizing dictionaries.

Recognizing the need for a more comprehensive treatment of dictionary reference skills, the CEFR-CV (2020) has revisited and enhanced the original framework, incorporating new perspectives on modes of communication, mediation skills, and online communication. While the CEFR-CV introduced a range of descriptors that incorporate dictionary use across different language activities and proficiency levels, the level of detail regarding the specific dictionary reference skills required remained limited. The CEFR-CV acknowledged the importance of dictionaries as aids for comprehension, writing, interaction, and mediation but did not provide explicit guidelines on which dictionary information should be accessed to address communication problems effectively. The following section will look at more detail about the CEFR descriptors related to dictionary use.

2.2 Review of descriptors related to dictionary use

2.2.1 The CEFR (2001)

In the CEFR (2001), dictionary skills were briefly mentioned as part of the broader Ability to learn (*savoir apprendre*) category. The descriptors highlighted the importance of skills and know-how, such as using a dictionary or navigating a documentation centre. For example, in Chapter 4, the following two descriptors contain the use of a dictionary, as in (1):

(1) a. READING CORRESPONDENCE C1: "Can understand any correspondence given the occasional use of a dictionary"
   b. READING FOR INFORMATION AND ARGUMETN B2+: "Can understand specialised articles outside his/her field, provided he/she can use a dictionary occasionally to confirm his/her interpretation of terminology."

As shown in (1a), descriptors often mention dictionary use with the expressions such as "given the occasional use of a dictionary," which indicates a condition under which a given communicative activity is performed. Since this is a C-level descriptor, it expresses

the almost perfect command of reading correspondence on the condition that the occasional use of a dictionary is available.

In Chapter 4.5 of the original CEFR (2001), the use of a dictionary was briefly mentioned as a part of communicative language processes. For comprehension, especially of written texts, the proper use of aids was recommended, including reference materials such as (a) dictionaries (monolingual and bilingual); (b) thesauruses; (c) pronunciation dictionaries; (d) electronic dictionaries, grammars, spell-checkers and other aids; and (e) reference grammars. This is the only place where different types of dictionaries were presented as aids of communicative language activities.

2.2.2 The CEFR-CV (2020)

The revised descriptors in the CEFR-CV treat dictionary use more extensively, providing a clearer understanding of its role in communicative language activities. For instance, in the domain of reading, if we compare the descriptors such as READING AS A LEISURE ACTIVITY B1 and B2, it is clear that they emphasize the regular use of a dictionary in B1 level (cf. 2b), which is less obvious in B2 level due to more advanced proficiency, to aid comprehension of reading novels for pleasure:

(2)   a.   READING AS A LEISURE ACTIVITY B2: Can read novels with a strong, narrative plot and that use straightforward, unelaborated language, <u>provided they can take their time and use a dictionary</u>. (Underline ours)
        b.   READING AS A LEISURE ACTIVITY B1: Can follow the plot of stories, simple novels and comics with a clear linear storyline and high frequency everyday language, <u>given regular use of a dictionary</u>. (Underline ours)

The descriptors shown in (3) to (6) cover the domain of written production and interaction, where descriptor scales such as OVERALL WRITTEN PRODUCTION Pre-A1, CREATIVE WRITING A2, OVERALL WRITTEN INTERACTION Pre-A1, and WRITTEN INTERACTION: CORRESPONDENCE Pre-A1 and A1 highlight the ability to convey basic information and compose messages using a dictionary as a reference:

(3)   OVERALL WRITTEN PRODUCTION Pre-A1: Can give basic personal information (e.g. name, address, nationality), perhaps with the use of a dictionary.

(4)   CREATIVE WRITING A2: Can compose an introduction to a story or continue a story, provided they can consult a dictionary and references (e.g. tables of verb tenses in a course book).

(5) OVERALL WRITTEN INTERACTION Pre-A1: Can convey basic information (e.g. name, address, family) in short phrases on a form or in a note, with the use of a dictionary.

(6) a. WRITTEN INTERACTION: CORRESPONDENCE Pre-A1: Can convey basic personal information in short phrases and sentences, with reference to a dictionary.

   b. WRITTEN INTERACTION: CORRESPONDENCE A1: Can compose messages and online postings as a series of very short sentences about hobbies and likes/dislikes, using simple words and formulaic expressions, with reference to a dictionary.

The CEFR-CV also recognizes the role of dictionaries in mediation tasks, shown in (7) to (9). Mediation in its main sense involves "passing on to another person the content of a text to which they do not have access, often because of linguistic, cultural, semantic or technical barriers" (CEFR-CV, p.91). During this mediation process, dictionary consultation is sometimes needed. Descriptor scales such as MEDIATION: EXPLAINING DATA B1, MEDIATION: PROCESSING TEXT A1, and MEDIATION: TRANSLATING A WRITTEN TEXT A1 illustrate how dictionaries can support the interpretation, explanation, and translation of texts for mediation purposes:

(7) MEDIATION: EXPLAINING DATA B1: Can interpret and present in writing (in Language B) the overall trends shown in simple diagrams (e.g. graphs, bar charts) (with text in Language A), explaining the important points in more detail, given the help of a dictionary or other reference materials.

(8) MEDIATION: PROCESSING TEXT A1: Can, with the help of a dictionary, convey (in Language B) the meaning of simple phrases (in Language A) on familiar and everyday themes.

(9) MEDIATION: TRANSLATING A WITTEN TEXT A1: Can, with the help of a dictionary, translate simple words/signs and phrases (from Language A into Language B), but may not always select the appropriate meaning.

While the updated descriptors in the CEFR-CV offer different language use contexts involving dictionary use, the description of dictionary use itself is rather simple and there remains an opportunity for more detailed exploration. In the next section, we will summarise our previous paper (Kawamoto/Tono 2023) in which a tentative list of "can do" descriptors were prepared.

2.3 Dictionary skills descriptor development

The development of descriptors was initiated with a thorough literature review to identify key sources on dictionary reference skills. This encompassed dictionary use questionnaires (Atkins/Varantola 1997), dictionary look-up processes (Atkins 1996; Béjoint 1981; Béjoint 1994; Hartmann 1999; 2001; Hartmann/James 2002; Higuchi 2012; Lew/Galas 2008; Nesi 1999; Scholfield 1982;), dictionary skills tests (Tono 2001), empirical studies on dictionary users' reference skills (Béjoint/Moulin 1987; Harvey/Yuill 1997; Koyama 2013; Lew 2013; Lew/Mitton 2011; Nesi/Meara 1994; Neubach/Cohen 1988; Nuccorini 1992; Wingate 2004; Winkler 2001), and resources detailing dictionary workbooks and inventories of skills and strategies for dictionary use (Gavriilidou 2013, 2014; Gavriilidou/Mavrommatidou 2016; Mavrommatidou/Gavriilidou/Markos 2019).

As we produced descriptors, we emphasized the essential characteristics of these descriptors. For example, strategy inventories, like those by Mavrommatidou/Gavriilidou/Markos (2019), often illustrated user preferences, such as the choice of dictionaries or mediums such as paper or online. While informative, these aspects do not encapsulate the action-oriented nature that CEFR "can do" descriptors demand – specifically, the user's active performance in language-related tasks requiring dictionary consultation. Hence, our focus shifted to the actions, such as "finding the meaning of a word" or "identifying the correct collocation for a target word," rather than mere conditions or preferences for dictionary use.

The literature reviewed provided a wealth of information on dictionary skills, which we meticulously compiled into a database. Within this, each skill was classified with respect to the corresponding reference, types of information, and the involved look-up processes, such as planning before consultation, searching for the headword (macrostructure process), searching for the necessary information within the entry (microstructure process) and retrieving information and applying it to the context at hand (application/evaluation). Adopting North and Piccardo's (2019: 153) methodological approach, we collated significant dictionary-related actions and information from the literature to commence the descriptor development. This review included an analysis of descriptors from the CEFR and DIALANG projects, which often vaguely referenced "the use of a dictionary." Our task was to dissect these references and articulate the specific dictionary information needed for a range of communicative tasks.

Our target demographic was designated as users of English as a foreign language, spanning proficiency levels from A1 to B2. This also implies that the findings in this study need to be validated against users of different languages, which is beyond the scope of this paper. The exclusion of C-level users was intentional, acknowledging that the dictionary needs of those at higher proficiency levels – often involving specialized and technical vocabulary – differ markedly from the general language competence sought by A1-B2 learners through dictionary use. This decision enabled a concentrated effort to develop descriptors that closely resonate with the needs and abilities of learners up to the B2 level, enhancing the descriptors' relevance and utility for this audience.

Upon refining our focus, we curated a selection of 32 illustrative descriptors to include in the "can do" questionnaire (detailed in Appendix A).

3 Method

3.1 Purposes of the study

The present study aims to produce a list of scaled descriptors for L2 dictionary use. What is meant by "scaled" is to calibrate descriptors in the same method as the original CEFR.

The research questions in this study were formulated as follows:

RQ1. What characteristics can be found in the list of scaled "can do" descriptors for L2 dictionary use regarding the types of reference skills and their difficulty order?

RQ2. Is there any room for improvement in the formulation of "can do" descriptors?

RQ3. What relationship can be identified regarding the relationship between dictionary reference skills and the CEFR levels?

3.2 Participants

A total of 223 university students participated in this study, representing two different universities: a national university, where the students' academic level is high and most students major in foreign languages and cultures or area studies, and a private university, whose students' academic levels are average. The participant pool consisted mainly of non-English majors at the national university who were learning English as their third language, while the students at the private university belonged to either the Education or Computer Science department. It should be noted that the difference between the academic levels of the two universities should be taken into account. Overall, the students at the national university were more proficient in English and they reached B1+ to B2 level overall, whereas the students at the private university mostly belonged to A1 or A2.

3.3 Instruments: a questionnaire survey and Rasch analysis

3.3.1 The "can do" questionnaire

The questionnaire used in this study consisted of a total of 32 "can do" descriptors provided to the participants through a Google Forms survey. Participants were asked to

indicate how well they could perform the task described in each descriptor of diction-ary use using a 5-point Likert scale. A sample question item is shown in (10):

(10) "I can predict the base form of the problem word."
4: "Strongly agree" 3: "Agree" 2: "Neutral" 1: "Disagree" 0: "Strongly disagree"

Participants were instructed to rate their ability for each descriptor on the scale, with 4 indicating "Strongly agree," 3 indicating "Agree," 2 indicating "Neutral," 1 indicating "Disagree," and 0 indicating "Strongly disagree." They were asked to evaluate their abil-ities based on scenarios involving printed, electronic, and online dictionaries, exclud-ing translation tools such as DeepL or Google Translate. While the "can do" descriptors were prepared and available in both English and Japanese, only the Japanese descrip-tors were utilized for this particular study.

3.3.2 Rasch analysis

Rasch analysis is a statistical method commonly used in educational and psychological research to evaluate the measurement properties of assessments, surveys, and other instruments. At its core, Rasch analysis aims to provide researchers with a common, interval-level metric by which both persons (i.e., individuals taking the assessment) and items (i.e., the questions or tasks within the assessment) are measured. This means that Rasch analysis facilitates the comparison of individuals' abilities or traits and the dif-ficulty of assessment items on the same scale, allowing for precise measurement and meaningful interpretation. In this study, "persons" correspond to the participants of the questionnaire and "items" are descriptors.

One of the key features of Rasch analysis is its provision of fit statistics, which help researchers assess the extent to which individual persons or items conform to the Rasch model. Fit statistics indicate whether there are discrepancies between observed responses and expected responses according to the model. By identifying items or persons that do not fit the model well, researchers can refine their assessments and improve their measurement precision.

Furthermore, Rasch analysis allows for the evaluation of the coverage of the latent construct being measured. This involves assessing whether the range of items included in the assessment adequately represents the full spectrum of the construct being meas-ured. Ensuring sufficient coverage is essential for accurately capturing individuals' abilities or traits across the entire range of the construct.

We used the extended Rasch modelling (*eRm*) package (Mair/Hatzinger 2007), which offers several functions to facilitate Rasch analysis, including "Estimates" and "Model diagnostics." The "Estimates" function in the *eRm* package provides estimates of individuals' abilities and item difficulties based on the Rasch model. These estimates are derived using conditional maximum likelihood estimation methods (Anderson

1972) and are represented on a common interval scale, allowing for direct comparisons between individuals and items.

On the other hand, the "Model diagnostics" function in the *eRm* package offers tools for assessing the adequacy of the Rasch model fit. This includes calculating INFIT and OUTFIT statistics, which measure the goodness of fit of individual items or persons to the Rasch model. Additionally, the function provides INFIT t-test statistics, which can be plotted for items or persons to visually assess model fit. Finally, the function includes testing procedures, such as Martin-Löf test (MLoef), to assess the unidimensionality of the measurement instrument, ensuring that it is measuring a single underlying trait or construct.

4 Results and Discussion

This section will report the results of two types of Rasch analysis based on the dichotomous Rasch Model (4.1) and the Partial Credit Model (4.2). After summarizing the fitted models and their diagnosis, we will move on to answering the three research questions (4.3).

4.1 Dichotomous Rasch model

The "can do" questionnaire asked participants to assess how well they think they can perform the tasks described in the "can do" descriptors. The present study compiled a list of 32 "can do" descriptors (see Appendix A), primarily covering four types of dictionary reference skills. The first type (Items No. 1–4, hereafter referred to as "before dictionary consultation") deals with the knowledge or skills needed to identify problematic words or phrases within a context and decide on look-up strategies, including the selection of appropriate dictionaries and the identification of problematic areas. The second type (Items No. 5–9, hereafter referred to as "macrostructure") deals with the selection of headwords and related skills such as predicting the base form or the meaning of the problem word. The third type (Items No. 10–28, hereafter referred to as "microstructure") encompasses a wide range of linguistic information presented under a headword as part of the microstructure. This includes details such as spelling, pronunciation (notated in katakana or IPA), stress, part of speech, countability, morphological information, distinctions between intransitive and transitive verbs, singular versus plural forms, usage labels (e.g., US/UK; formal/informal; spoken/written), verb codes or patterns, synonyms and antonyms, menus or signposts, etymology, and cross-referencing. The final type (Items No. 29–32, hereafter referred to as "application") consists of skills for applying dictionary information to construct new sentences, which includes analysing illustrative examples, verb patterns, and collocations.

Firstly, we fitted the simplest model, called the Dichotomous Rasch Model. This model uses sum scores from these ordinal responses (i.e., 0 to 4) to calculate interval-level

estimates that represent person locations (i.e., person ability or person achievement) and item locations (i.e., the difficulty to provide a correct or positive response) on a linear scale that represents the latent variable (the log-odds or "logit" scale). The difference between person and item locations can be used to calculate the probability for a positive response to a "can do" descriptor (x = 1), rather than a negative response (x = 0).

The results of the Rasch analysis for the dichotomous data provided valuable insights into the characteristics of the developed "can do" descriptors for dictionary skills. Firstly, the analysis confirmed that the result of the Martin-Löf test showed that unidimensionality is tenable (LR-value: 144.074; Chi-square df: 271; p=1.00), indicating that the descriptors represented a unidimensional construct, measuring a single underlying skill set related to dictionary use.
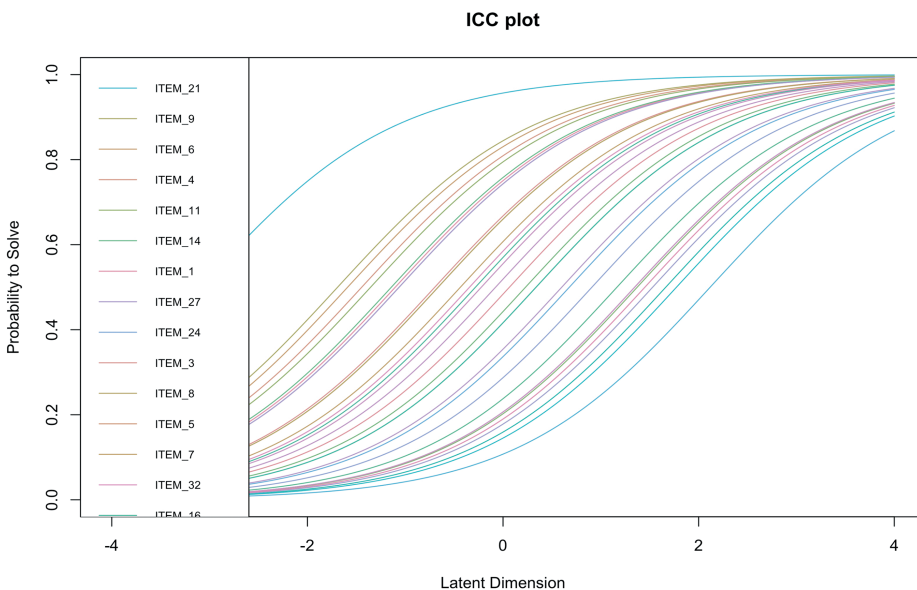
Figure 1: Joint ICC plot of dictionary skills descriptors.
Note: The ITEM number corresponds to the number of the descriptors in Appendix A. Due to limitations in controlling *eRm* graph functions, not all items are visible on the legend.

The Item Characteristic Curve (ICC) plot (see Figure 1) displayed a gradual progression of item difficulty across the latent dimension (see Appendix B). The plot demonstrated a smooth curve without any unusual intersections, indicating that the items fit well within the overall construct. Only one item showed a slight misfit, identified as Item 21, which was considered the easiest but exhibited some deviation from the expected pattern.

The Person-Item map, shown in Figure 2, visualized the relationship between participants' proficiency levels and the difficulty levels of the descriptors across the latent dimension (the logit scale). This diagram also shows that Item_21 is located toward the

left-most end of the plots, showing that the item is considered extremely easy by most participants.

The next step involves investigating the fit of the items to the Rasch model. Item fit information was obtained using the item fit statistics presented (see Appendix C). The results provided further evidence that, overall, the data fit the Rasch model well, with only a few exceptions. Specifically, Items 14, 22, and 25 exhibited statistically significant values for OUTFIT *t*, indicating that the residuals for these items are more variable than what the Rasch model predicts.

4.2 Partial Credit Model

Given that the "can do" questionnaire features polytomous responses, such as the Likert scale format ranging from 0 to 4, dichotomizing the five response categories would be somewhat artificial. Therefore, we extended the Rasch model to polytomous models, employing the Partial Credit Model (PCM) using the *eRm* package. The full output of the fitted PCM is presented in Appendix D. With the five-category response scale for the "can do" questionnaire, we obtain four parameters per item corresponding to the four thresholds. By default, the first threshold of the first item is fixed to 0. The easiness parameters are also reported for this polytomous model.

The result of the Martin-Löf test showed that unidimensionality is again tenable (LR-value: 742.521; Chi-square df: 4095; p=1.00). Figure 3 illustrates the person-item map for the PCM. In this visualization, not only are the item locations represented by black dots, but also the threshold locations. This provides a better understanding of how participants responded to the descriptors compared to the dichotomous model. For instance, items marked with a (*) on the right vertical axis (Items 10 and 23) exhibited disordered thresholds (where 3 and 4 were not in the correct order). These items present a problem and may require either removal or improvement by collapsing the "Strongly Agree" and "Agree" categories.

Compared to the dichotomous model presented in Figure 2, the order of descriptors in the Partial Credit Model (PCM) may exhibit slight variations. However, the PCM offers more detailed insights into how participants responded to each item. When an item performs well, each response category (1 to 4) becomes the most likely response within a certain range of the latent dimension. Consequently, the Item Characteristic Curve (ICC) for each category typically exhibits a well-defined bell shape, with the curves shifting from easy to difficult along the latent dimension (as illustrated by Item No. 1 in Figure 4).

Despite minor changes, the PCM results also show that "can do" item No. 21 was found to be the easiest, while No. 22 proved to be the most challenging. Figure 5 provides a comparison of the Item Characteristic Curve (ICC) plots for Items No. 21 and 22. Due to the plotting of characteristic curves for each response category, joint plotting becomes too complicated and is not available. For Item No. 21, the curve line toward the right edge (light blue line) is the most prominent, indicating that a majority of respond-
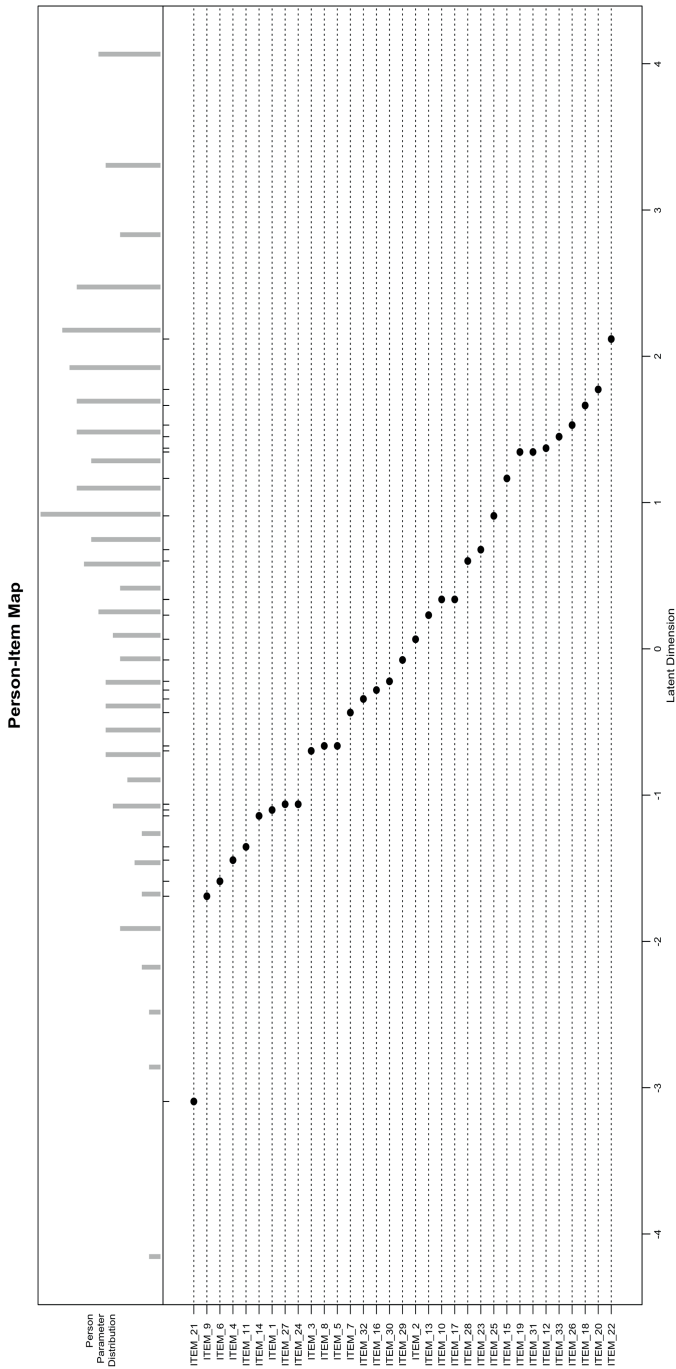
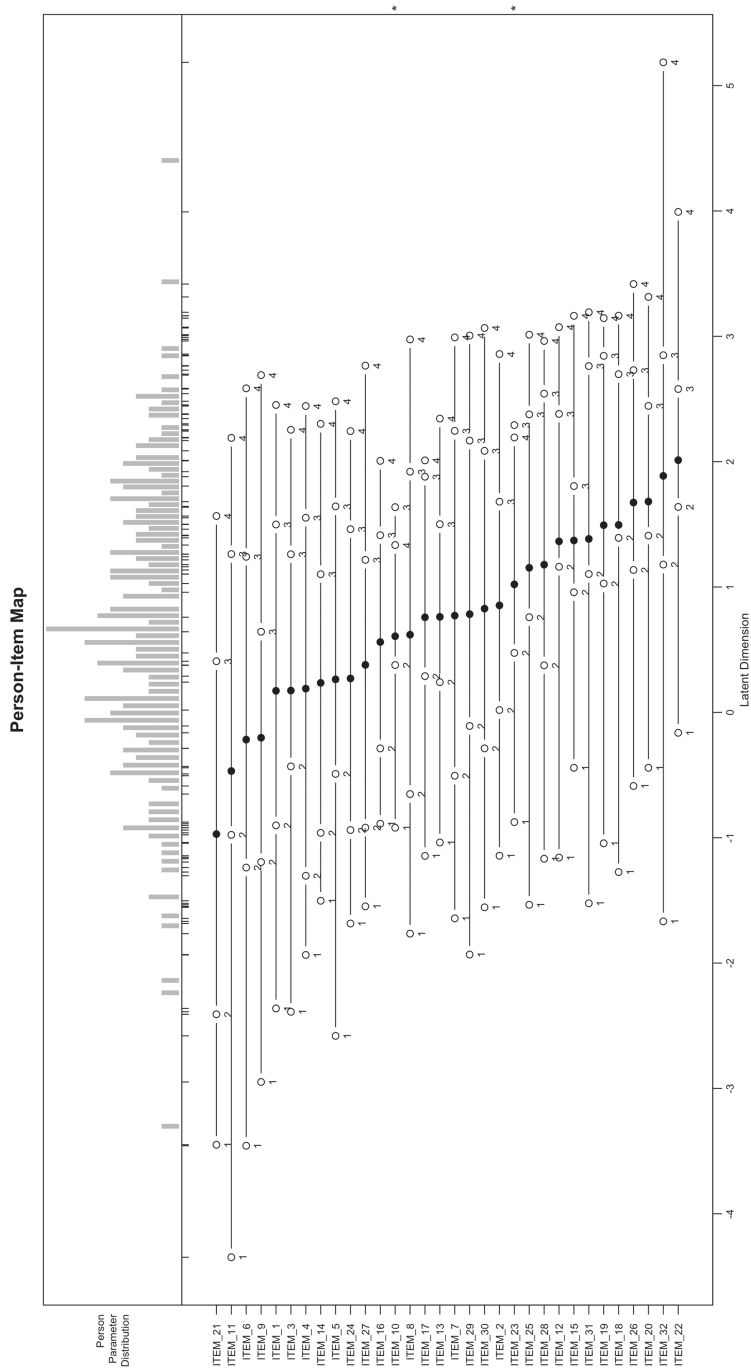**Figure 2:** Person-Item map for the dichotomous model.

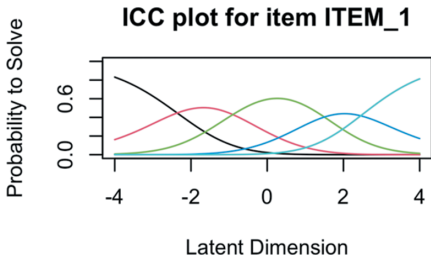**Figure 3:** Person-Item map for the partial credit model.

Figure 4: The ICC curve for Item No. 1.

ents are clustered around scale 4 on the latent dimension. It is worth noting that this package reports easiness parameters for the polytomous model (Padgett/Morgan 2020). Therefore, in this context, a higher score on the theta scale signifies easier items. Conversely, Item No. 22 demonstrates a majority of responses clustering around the "-4" area, indicating its extreme difficulty level.
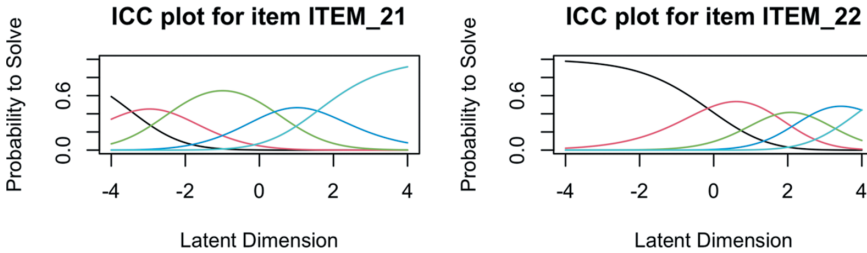
Figure 5: ICC plots for Items No.21 and No. 22.

Finally, we generated a Pathway Map, which plots the location of each item or person against its infit t-statistic (see Appendix E). Pathway maps serve as valuable tools for identifying misfitting items or persons within the Rasch model framework. Ideally, both items and individuals should exhibit infit t-statistics ranging between approximately -2 and +2, as indicated by the marked values. Figure 6 illustrates the Pathway Map based on the "can do" questionnaire for dictionary skills. The vertical green lines delineate the –2 and +2 thresholds.

Given that the Rasch model employs infit statistics rather than traditional residual analysis used in regression analysis, it is crucial to utilize these statistics to identify items that do not conform to the Rasch model and to explore the underlying reasons for their misfit. In Figure 6, several items (No. 2, 14, 22, 25) are identified as misfitting. Notably, these items were also flagged as problematic in the dichotomous model analysis (cf. Section 4.1). Their response patterns deviate from the expectations of the Rasch model, indicating a need for further investigation and potential refinement.

Figure 7 illustrates that there are numerous instances of misfitting persons. While this paper does not extensively explore the factors influencing individuals' misfit, it is
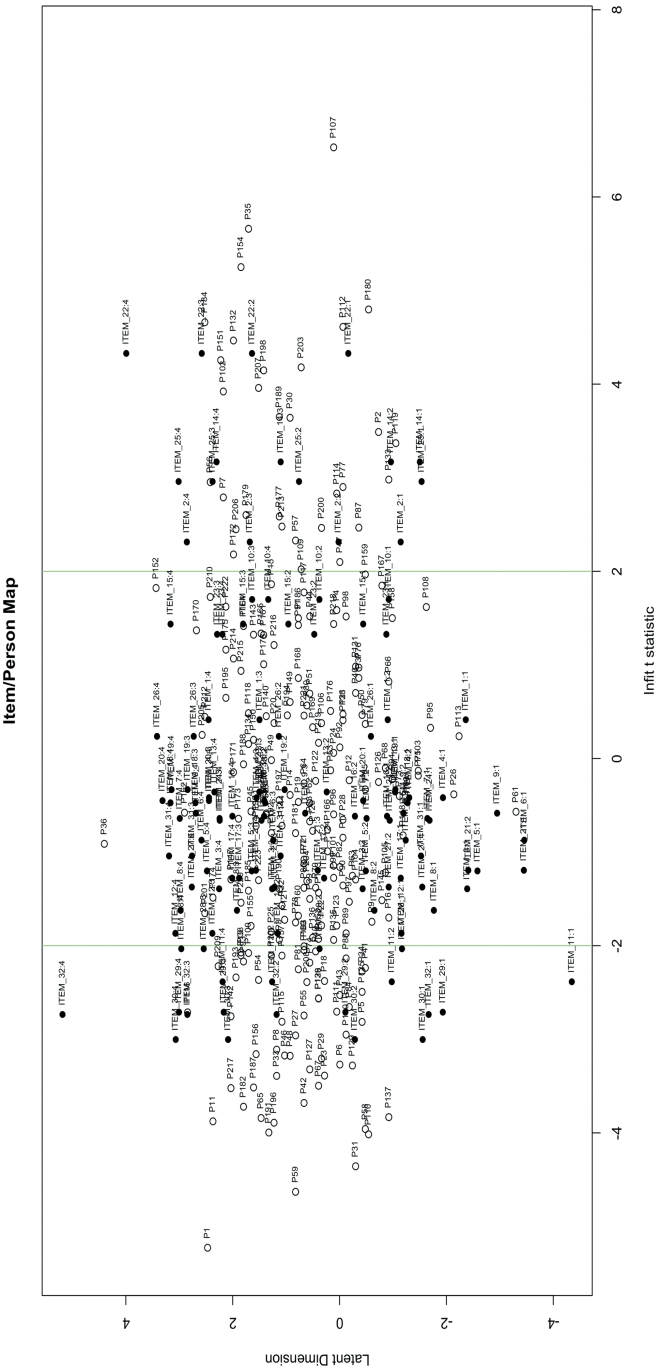
Figure 6: Path Way map (Item).
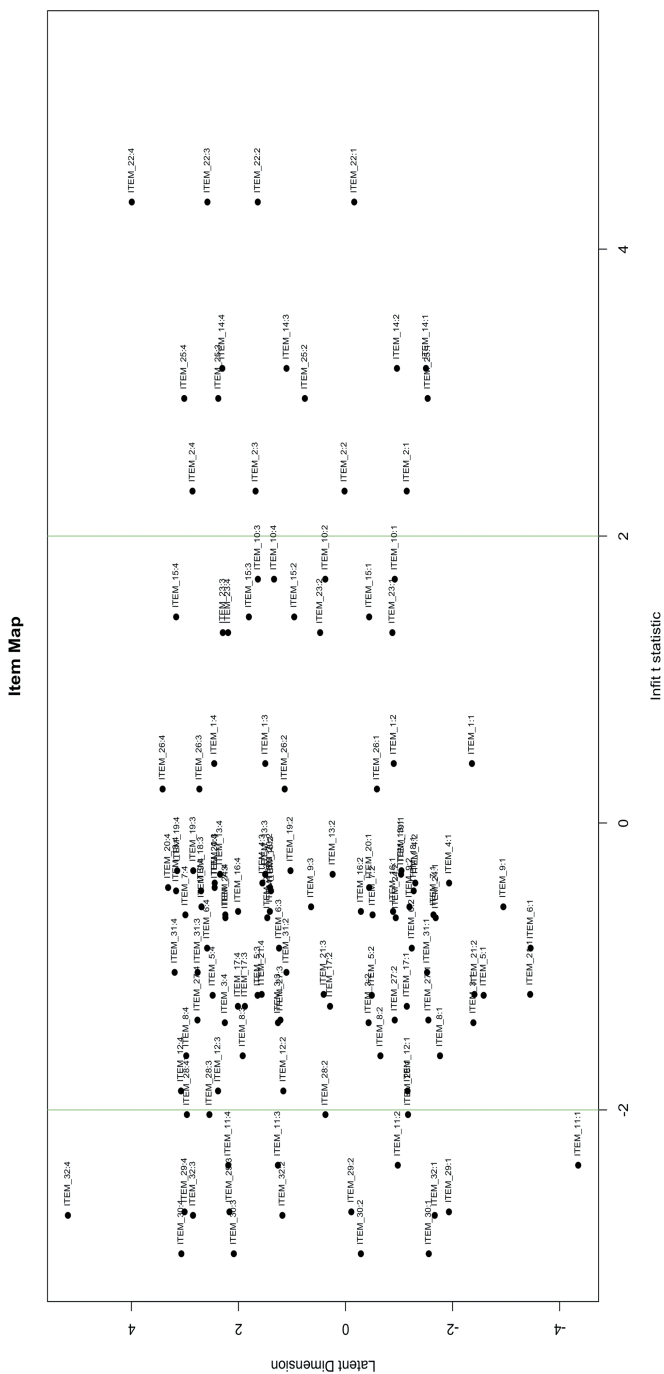
Figure 7: Pathway map (Item-Person).

crucial to highlight a significant aspect. Tono/Kawamoto (in press) conducted an experiment aimed at assessing whether users who responded positively to specific "can do" items could effectively execute the dictionary operations described in the descriptors. The findings of this experiment are mixed, revealing a noticeable disparity between users' perceptions of their abilities and their actual performance. This disparity underscores the importance of further exploration in understanding and addressing the gap between users' self-assessments and their real-world proficiency levels. Moving forward, investigating this issue will be essential for refining the "can do" list and ensuring its alignment with users' actual capabilities.

4.3 Responses to the research questions

This section will examine the two versions of the Rasch model, the dichotomous model and the Partial Credit Model (PCM), in order to explore the answers to the three research questions below:

RQ1. What characteristics can be found in the list of scaled "can do" descriptors for L2 dictionary use regarding the types of reference skills and their difficulty order?

RQ2. Is there any room for improvement in the formulation of "can do" descriptors?

RQ3. What relationship can be identified regarding the relationship between dictionary reference skills and the CEFR levels?

4.3.1 RQ1: Characteristics of the scaled "can do" descriptors for L2 dictionary use

Appendix A presents the list of "can do" descriptors ordered by Easiness Parameters (beta) with 0.95 confidence intervals derived from the dichotomous Rasch model. It is important to recall that these descriptors were initially formulated with four search stages in mind:

Stage 1: Before dictionary consultation

Stage 2: Macrostructure (searching for the headword)

Stage 3: Microstructure (searching for necessary information under the entry)

Stage 4: Applying the retrieved information to the context for evaluation

Let us discuss the items within each category. Among the four items belonging to Stage 1, it became evident that the easiness parameters varied across descriptors. Item 4 ("I can identify the problem area: a word or a phrase."; beta = 1.44) and Item 1 ("I can decide whether to look up a word in a dictionary or to guess its meaning from the context."; beta = 1.10) were deemed relatively easy, followed by Item 3 ("I can identify a part of speech of the problem word."; beta = 0.69) and Item 2 ("I can choose the appropriate dictionary according to the problem."; beta = −0.07). Notably, Item 2 posed challenges,

as it emerged as one of the misfitting items. Given the unpredictable responses from users, revising this descriptor for future surveys is imperative.

An observation worth noting is that Item 2 was perceived as difficult by advanced learners. While less proficient learners may interpret "the appropriate dictionary" simply as choosing between English-Japanese or Japanese-English dictionaries, more advanced learners have a broader array of options, including English monolingual dictionaries, thesauruses, and specialized dictionaries. This expanded choice pool can significantly complicate the decision-making process as proficiency levels increase.

Among the five items pertaining to macrostructure skills, Item 9 ("I can identify the meaning of the problem word when there is more than one meaning in the dictionary, by comparing each one with the context, assisted by example sentences, etc."; beta = 1.69) and Item 6 ("I can predict the base form of the problem word."; beta = 1.59) emerged as the easiest, while Items 5, 8, and 7, focusing primarily on headword selections, exhibited similar difficulty levels (beta = 0.43 to 0.66). Overall, macrostructure skills are generally perceived as easier compared to microstructure skills. However, it is worth noting that Item 9 may present greater difficulty than anticipated, particularly when users need to infer the meaning from the context before consulting a dictionary.

Items 10 to 28 are all associated with microstructure skills. The information sought under the headword, which users found relatively easy, included verb/adjective conjugations (Item 11; beta = 1.35), pronunciation using katakana notations (Item 14; beta = 1.14), synonyms and antonyms (Item 24; beta = 1.06), and translation equivalents (Item 27; beta = 1.06). Items with moderate difficulties encompassed stress symbols (Item 16; beta = 0.28), transitive/intransitive verbs (Item 13; beta = −0.23), countable/uncountable nouns (Item 10; beta = −0.34), stress in compound words (Item 17; beta = −0.34), sentence pattern codes (Item 28; beta = −0.60), verb patterns (Item 23; beta = −0.68), and word origins (Item 25; beta = −0.91). It is noteworthy that Item 14 was identified as a misfitting item. Users may have been confused about the nature of katakana notations. While katakana can be helpful for beginners, certain katakana notations may pose challenges even for advanced learners. Clarifying the descriptor to explicitly define "katakana notations" may alleviate user confusion and enhance comprehension.

The most challenging items included the International Phonetic Alphabet (Item 15; beta = −1.17), register information (spoken vs. written) (Item 19; beta = −1.35), attributive vs. predicative adjectives (Item 12; beta = −1.37), cross-referencing (Item 26; beta = −1.53), speech level (informal vs. formal) (Item 18; beta = −1.66), varieties (UK vs. US) (Item 20; beta = −1.77), and word meaning menu (Item 22; beta = −2.12). While many of these items are typically accompanied by usage labels or grammatical codes, such as [U/C] or [S/W], which may seem straightforward once users are acquainted with their meanings, the results indicate that these nuances are not explicitly taught in classrooms, and users may struggle to leverage this information effectively for understanding word usages.

The shallow nature of dictionary reference acts on smartphones or tablet PCs, coupled with limited exposure to opportunities for maximizing the utility of usage information, underscores the importance of dictionary skill training. Moving forward, it remains an

empirical question whether these items are inherently challenging and warrant placement at their current difficulty levels on the latent dimension, or if they could be positioned at points of lesser difficulty. Addressing these questions is essential for enhancing dictionary literacy and optimizing users' utilization of dictionary resources.

Finally, four descriptors address the application of dictionary information to specific language contexts for evaluation. Among them, Items 32 ("I can look for appropriate collocates of the problem word from the collocation box and apply them to produce new sentences."; beta = 0.34), Item 30 ("I can identify verb patterns of the problem word in illustrative examples and apply them to produce new sentences."; beta = 0.22), and Item 29 ("I can identify the grammatical information of the problem word such as pre- and post-modification patterns in illustrative examples and apply them to produce new sentences."; beta = 0.08) were positioned in the middle on the latent dimension.

Conversely, Item 31 was deemed the most challenging (beta = −1.35), focusing on the skill of "identifying collocates of the problem word in illustrative examples and applying them to produce new sentences." It is intriguing to note that users perceived it as more difficult to discern collocation patterns from illustrative examples than to identify collocations in the collocation column. While this discrepancy may not significantly impact advanced users, it could pose substantial challenges for novice to intermediate level learners.

4.3.2 RQ2: Room for improvement in the formulation of "can do" descriptors

Upon examining the nature of descriptors and their relative difficulty levels as determined by both the user questionnaire and Rasch analysis, several suggestions for improvement emerge. Firstly, while the Rasch model effectively scaled the descriptors for L2 dictionary use, instances of user interpretation variance were prevalent, particularly evident in misfitting items such as "the appropriate dictionary," "katakana notations," and "word meaning menu," among others. To mitigate ambiguity, providing concrete examples alongside descriptors may enhance understanding. However, this approach could pose challenges, considering the lack of universally agreed-upon dictionary conventions. It would be beneficial to assess the impact of providing sample entries on the difficulty order, both with and without such examples.

Another pertinent issue is the alignment between users' claims and their actual lookup behaviour. Tono/Kawamoto (in press) investigated this discrepancy by administering actual dictionary lookup activities as tasks to a group of students. Their findings revealed occasional mismatches between user perception and behaviour, demonstrating instances where users were unable to perform tasks they believed they could, as well as instances where they easily executed certain tasks despite claiming inability in the questionnaire. This disparity underscores the influence of prior experience and dictionary skills training in the classroom. Therefore, in creating a list of scaled "can do" descriptors for L2 dictionary use, it is imperative not only to conduct a "can do" questionnaire survey but also to administer performance tests. This dual approach ensures the avoid-

ance of misinterpretations of knowledge and skills illustrated in the descriptors, while verifying users' actual performance in relation to their questionnaire claims.

4.3.3 RQ3: How to link the dictionary skills descriptors to the CEFR levels

An important consideration lies in linking each descriptor to the CEFR levels. One approach involves integrating already calibrated descriptors for communicative language strategies from the CEFR-Common Reference Levels (CEFR-CV) into our descriptor survey as anchor items. By examining the theta scores for these existing strategy descriptors, we can potentially determine the cut-offs for various CEFR levels along the latent dimension.

Given the limited description of dictionary use in the CEFR documents, aligning every descriptor with a specific CEFR level may prove challenging. However, it seems logical to introduce certain lexicographical conventions, such as grammar codes or IPA symbols, after covering foundational English grammar structures and sound systems, typically at the end of the A1 level or the onset of the A2 level. Introducing these meta-cognitive learning devices at the A1 level may not be advisable. Similarly, the choice between monolingual versus bilingual dictionaries should likely be associated with the B levels, as bilingual dictionaries are often the initial option for beginners.

Therefore, in accordance with the original CEFR recommendations (Council of Europe 2020), a combination of intuitive, qualitative, and quantitative methods will be essential to estimate the appropriate CEFR level for each descriptor. Furthermore, linking each dictionary use descriptor with communicative language activities and strategies, particularly those involving reading, writing, and mediation, would be advantageous.

5 Conclusion

The present study embarked on a crucial mission: to develop and calibrate a comprehensive set of "can do" descriptors tailored specifically for users of English as a foreign language, with a paramount focus on optimizing the utilization of various types of dictionary information. While further refinements are undoubtedly necessary, our study unequivocally demonstrated the transformative potential of the Rasch model in enhancing questionnaire survey results, thereby enabling the determination of relative difficulty levels for each descriptor precisely. Examining the nuanced nature and distinctive characteristics of each descriptor, alongside rigorous empirical validation, we envision the evolution of a meticulously curated list of scaled "can do" descriptors for L2 dictionary use. Such a resource holds immense promise, serving as a cornerstone for future discussions and implementations of dictionary skills training grounded in the ongoing refinement of these indispensable descriptors.

Appendix A. A list of "can do" descriptors for dictionary use

Item No.	TYPE	Descriptors in English	Easiness estimate	Std. Error	Lower CI	Upper CI
21	Microstructure	I can identify the plural form of the problem word in the dictionary.	3.094	0.355	2.399	3.79
9	Macrostructure	I can identify the meaning of the problem word when there is more than one meaning in the dictionary, by comparing each one with the context, assisted by example sentences, etc.	1.691	0.226	1.248	2.134
6	Macrostructure	I can predict the base form of the problem word.	1.589	0.22	1.158	2.02
4	Before dictionary consultation	I can identify the problem area: a word or a phrase.	1.444	0.212	1.028	1.861
11	Microstructure	I can look at a dictionary and identify information on conjugational forms of verbs and adjectives.	1.354	0.208	0.946	1.761
14	Microstructure	I can identify the pronunciation of the problem word by looking at the katakana notation in the dictionary and know how to pronounce it.	1.142	0.198	0.753	1.531
1	Before dictionary consultation	I can decide whether to look up a word in a dictionary or to guess its meaning from the context.	1.102	0.197	0.716	1.487
24	Microstructure	I can look at the dictionary and identify synonyms and antonyms of the problem word.	1.062	0.195	0.68	1.445
27	Microstructure	If I am given more than one translation equivalent of the problem word, I can select the most appropriate one by reference to the context.	1.062	0.195	0.68	1.445
3	Before dictionary consultation	I can identify a part of speech of the problem word.	0.698	0.182	0.34	1.055
5	Macrostructure	I can determine which headwords in the dictionary provide information on the problem word or phrase.	0.664	0.181	0.308	1.019

8	Macrostructure	I can search the dictionary for the headword of the problem word and, when there are multiple parts of speech, homonyms, etc., I can use grammatical and semantic clues to identify the headword that provides the correct information.	0.664	0.181	0.308	1.019
7	Macrostructure	I can predict various spellings of words I hear on audio and can look them up in a dictionary to check the spelling.	0.436	0.175	0.092	0.779
32	Application	I can look for appropriate collocates of the problem word from the collocation box and apply them to produce new sentences.	0.343	0.173	0.004	0.682
16	Microstructure	I can identify the position of the stress in the problem word by looking at the stress marks in the dictionary.	0.282	0.172	−0.054	0.618
30	Application	I can identify verb patterns of the problem word in illustrative examples and apply them to produce new sentences.	0.222	0.17	−0.112	0.556
29	Application	I can identify the grammatical information of the problem word such as pre- and post-modification patterns in illustrative examples and apply them to produce new sentences.	0.076	0.168	−0.252	0.404
2	Before dictionary consultation	I can choose the appropriate dictionary according to the problem.	−0.065	0.165	−0.389	0.258
13	Microstructure	I can look at a dictionary and identify whether the problem word is an intransitive or transitive verb.	−0.23	0.163	−0.55	0.089
10	Microstructure	I can look at a dictionary and identify whether the problem word is a countable or uncountable noun.	−0.338	0.162	−0.655	−0.021
17	Microstructure	I can identify the position of the stress in the compound words in question by looking at the stress marks in the dictionary.	−0.338	0.162	−0.655	−0.021
28	Microstructure	I can understand the terms and abbreviations used for the sentence pattern of the problem word in question.	−0.601	0.16	−0.914	−0.287

(continued)

Item No.	TYPE	Descriptors in English	Easiness estimate	Std. Error	Lower CI	Upper CI
23	Microstructure	I can identify the sentence pattern of the given verb in question by looking at the verb pattern codes in the dictionary.	−0.678	0.159	−0.991	−0.366
25	Microstructure	I can look at the dictionary and identify word origins of the problem word.	−0.909	0.159	−1.22	−0.597
15	Microstructure	I can identify the pronunciation of the problem word by looking at the International Phonetic Alphabet (IPA) in the dictionary and know how to pronounce it.	−1.165	0.16	−1.478	−0.852
19	Microstructure	I can identify the usage of the problem word (e.g. spoken vs. written) by looking at the usage labels in the dictionary.	−1.346	0.161	−1.661	−1.031
31	Application	I can identify collocates of the problem word in illustrative examples and apply them to produce new sentences.	−1.346	0.161	−1.661	−1.031
12	Microstructure	I can look at a dictionary and identify whether the problem word is an attributive or predicative adjective.	−1.372	0.161	−1.687	−1.056
26	Microstructure	I can recognise the symbols for cross-references relating to the problem word and refer to them as appropriate.	−1.53	0.163	−1.848	−1.211
18	Microstructure	I can identify the usage of the problem word (e.g. informal vs. formal, etc.) by looking at the usage labels in the dictionary.	−1.664	0.164	−1.986	−1.342
20	Microstructure	I can identify the usage of the problem word (e.g. UK vs. US) by looking at the usage labels in the dictionary.	−1.773	0.166	−2.099	−1.448
22	Microstructure	I can find out which meaning of the problem word I should look at from the dictionary's word meaning menu.	−2.118	0.173	−2.457	−1.778

Appendix B. Results of Rasch Model estimation (Dichotomous Model)

Results of RM estimation:

Call: RM(X = dicho)

Conditional log-likelihood: −2739.652
Number of iterations: 27
Number of parameters: 32

Item Easiness Parameters (beta) with 0.95 CI:

	Estimate	Std. Error	lower CI	upper CI
beta ITEM_1	1.102	0.197	0.716	1.487
beta ITEM_2	−0.065	0.165	−0.389	0.258
beta ITEM_3	0.698	0.182	0.340	1.055
beta ITEM_4	1.444	0.212	1.028	1.861
beta ITEM_5	0.664	0.181	0.308	1.019
beta ITEM_6	1.589	0.220	1.158	2.020
beta ITEM_7	0.436	0.175	0.092	0.779
beta ITEM_8	0.664	0.181	0.308	1.019
beta ITEM_9	1.691	0.226	1.248	2.134
beta ITEM_10	−0.338	0.162	−0.655	−0.021
beta ITEM_11	1.354	0.208	0.946	1.761
beta ITEM_12	−1.372	0.161	−1.687	−1.056
beta ITEM_13	−0.230	0.163	−0.550	0.089
beta ITEM_14	1.142	0.198	0.753	1.531
beta ITEM_15	−1.165	0.160	−1.478	−0.852
beta ITEM_16	0.282	0.172	−0.054	0.618
beta ITEM_17	−0.338	0.162	−0.655	−0.021
beta ITEM_18	−1.664	0.164	−1.986	−1.342
beta ITEM_19	−1.346	0.161	−1.661	−1.031
beta ITEM_20	−1.773	0.166	−2.099	−1.448
beta ITEM_21	3.094	0.355	2.399	3.790
beta ITEM_22	−2.118	0.173	−2.457	−1.778

(continued)

	Estimate	Std. Error	lower CI	upper CI
beta ITEM_23	−0.678	0.159	−0.991	−0.366
beta ITEM_24	1.062	0.195	0.680	1.445
beta ITEM_25	−0.909	0.159	−1.220	−0.597
beta ITEM_26	−1.530	0.163	−1.848	−1.211
beta ITEM_27	1.062	0.195	0.680	1.445
beta ITEM_28	−0.601	0.160	−0.914	−0.287
beta ITEM_29	0.076	0.168	−0.252	0.404
beta ITEM_30	0.222	0.170	−0.112	0.556
beta ITEM_31	−1.346	0.161	−1.661	−1.031
beta ITEM_32	0.343	0.173	0.004	0.682
beta ITEM_33	−1.450	0.162	−1.767	−1.134

Appendix C. Item fit statistics (Dichotomous model)

Itemfit Statistics:

	Chisq	Df	p-value	Outfit MSQ	Infit MSQ	Outfit t	Infit t	Discrim
ITEM_1	205.114	211	0.601	0.968	0.969	−0.016	−0.241	0.478
ITEM_2	224.286	211	0.253	1.058	1.138	0.405	1.686	0.417
ITEM_3	166.285	211	0.990	0.784	0.998	−0.914	0.008	0.504
ITEM_4	174.565	211	0.968	0.823	1.005	−0.423	0.079	0.441
ITEM_5	148.134	211	1.000	0.699	0.888	−1.386	−1.161	0.564
ITEM_6	241.305	211	0.075	1.138	1.128	0.477	0.945	0.314
ITEM_7	253.899	211	0.023	1.198	0.964	0.974	−0.374	0.500
ITEM_8	180.573	211	0.937	0.852	0.872	−0.599	−1.343	0.573
ITEM_9	179.523	211	0.943	0.847	0.892	−0.275	−0.737	0.461
ITEM_10	222.936	211	0.273	1.052	1.038	0.393	0.524	0.476
ITEM_11	130.433	211	1.000	0.615	0.935	−1.238	−0.489	0.498
ITEM_12	153.608	211	0.999	0.725	0.844	−1.892	−2.287	0.587
ITEM_13	152.963	211	0.999	0.722	0.836	−1.977	−2.242	0.629
ITEM_14	342.443	211	0.000	1.615	1.339	1.848	2.708	0.180
ITEM_15	232.688	211	0.146	1.098	1.064	0.693	0.918	0.445

(continued)

	Chisq	Df	p-value	Outfit MSQ	Infit MSQ	Outfit t	Infit t	Discrim
ITEM_16	187.207	211	0.879	0.883	0.999	−0.578	0.022	0.518
ITEM_17	188.239	211	0.868	0.888	1.002	−0.741	0.054	0.517
ITEM_18	200.807	211	0.681	0.947	0.860	−0.243	−1.928	0.530
ITEM_19	209.283	211	0.520	0.987	0.968	−0.031	−0.437	0.485
ITEM_20	184.140	211	0.909	0.869	0.945	−0.672	−0.695	0.484
ITEM_21	253.271	211	0.025	1.195	1.133	0.497	0.557	0.196
ITEM_22	307.753	211	0.000	1.452	1.238	1.852	2.623	0.260
ITEM_23	256.844	211	0.017	1.212	1.137	1.474	1.851	0.416
ITEM_24	213.766	211	0.434	1.008	1.046	0.124	0.446	0.403
ITEM_25	321.368	211	0.000	1.516	1.295	3.244	3.868	0.290
ITEM_26	219.633	211	0.327	1.036	1.133	0.268	1.765	0.396
ITEM_27	175.617	211	0.964	0.828	0.872	−0.545	−1.167	0.541
ITEM_28	163.833	211	0.993	0.773	0.873	−1.721	−1.806	0.606
ITEM_29	144.776	211	1.000	0.683	0.810	−2.019	−2.439	0.647
ITEM_30	146.158	211	1.000	0.689	0.797	−1.833	−2.527	0.658
ITEM_31	185.508	211	0.897	0.875	0.944	−0.787	−0.779	0.518
ITEM_32	194.186	211	0.791	0.916	0.903	−0.376	−1.107	0.565
ITEM_33	138.463	211	1.000	0.653	0.802	−2.397	−2.919	0.608

Appendix D. Results of the Partial Credit Model

Results of PCM estimation:

Call: PCM(X = data)

Conditional log-likelihood: −7254.763
Number of iterations: 101
Number of parameters: 127

Item Easiness Parameters (beta) with 0.95 CI:

	Estimate	Std. Error	lower CI	upper CI
beta ITEM_1.c1	2.362	0.465	1.451	3.272
beta ITEM_1.c2	3.263	0.459	2.364	4.163
beta ITEM_1.c3	1.764	0.478	0.828	2.701
beta ITEM_1.c4	−0.688	0.518	−1.703	0.327
beta ITEM_2.c1	1.144	0.267	0.620	1.667
beta ITEM_2.c2	1.125	0.277	0.583	1.668
beta ITEM_2.c3	−0.555	0.317	−1.176	0.065
beta ITEM_2.c4	−3.414	0.410	−4.217	−2.610
beta ITEM_3.c1	2.389	0.426	1.553	3.224
beta ITEM_3.c2	2.820	0.428	1.980	3.659
beta ITEM_3.c3	1.558	0.447	0.683	2.433
beta ITEM_3.c4	−0.696	0.483	−1.642	0.250
beta ITEM_4.c1	1.935	0.450	1.053	2.817
beta ITEM_4.c2	3.239	0.434	2.388	4.089
beta ITEM_4.c3	1.686	0.455	0.794	2.578
beta ITEM_4.c4	−0.758	0.498	−1.733	0.218
beta ITEM_5.c1	2.581	0.453	1.692	3.470
beta ITEM_5.c2	3.072	0.454	2.182	3.962
beta ITEM_5.c3	1.429	0.475	0.498	2.360
beta ITEM_5.c4	−1.053	0.519	−2.070	−0.037
beta ITEM_6.c1	3.457	0.758	1.971	4.943
beta ITEM_6.c2	4.695	0.749	3.227	6.163
beta ITEM_6.c3	3.454	0.752	1.980	4.928
beta ITEM_6.c4	0.869	0.773	−0.646	2.384
beta ITEM_7.c1	1.643	0.331	0.995	2.292
beta ITEM_7.c2	2.149	0.330	1.502	2.796
beta ITEM_7.c3	−0.097	0.374	−0.830	0.636
beta ITEM_7.c4	−3.088	0.477	−4.022	−2.154
beta ITEM_8.c1	1.765	0.357	1.065	2.465
beta ITEM_8.c2	2.417	0.354	1.723	3.111
beta ITEM_8.c3	0.497	0.387	−0.263	1.256
beta ITEM_8.c4	−2.479	0.475	−3.410	−1.547
beta ITEM_9.c1	2.949	0.640	1.693	4.204

(continued)

	Estimate	Std. Error	lower CI	upper CI
beta ITEM_9.c2	4.143	0.632	2.905	5.381
beta ITEM_9.c3	3.500	0.635	2.256	4.744
beta ITEM_9.c4	0.809	0.662	−0.489	2.107
beta ITEM_10.c1	0.920	0.243	0.444	1.397
beta ITEM_10.c2	0.543	0.264	0.026	1.059
beta ITEM_10.c3	−1.094	0.314	−1.710	−0.479
beta ITEM_10.c4	−2.429	0.337	−3.089	−1.769
beta ITEM_11.c1	4.347	1.030	2.327	6.366
beta ITEM_11.c2	5.324	1.021	3.323	7.324
beta ITEM_11.c3	4.061	1.017	2.068	6.055
beta ITEM_11.c4	1.871	1.021	−0.129	3.872
beta ITEM_12.c1	1.158	0.223	0.722	1.595
beta ITEM_12.c2	−0.003	0.257	−0.507	0.500
beta ITEM_12.c3	−2.384	0.329	−3.029	−1.740
beta ITEM_12.c4	−5.457	0.475	−6.388	−4.526
beta ITEM_13.c1	1.038	0.253	0.541	1.534
beta ITEM_13.c2	0.797	0.269	0.269	1.325
beta ITEM_13.c3	−0.704	0.308	−1.308	−0.100
beta ITEM_13.c4	−3.048	0.371	−3.775	−2.320
beta ITEM_14.c1	1.503	0.374	0.770	2.236
beta ITEM_14.c2	2.464	0.362	1.755	3.173
beta ITEM_14.c3	1.362	0.383	0.610	2.113
beta ITEM_14.c4	−0.940	0.427	−1.777	−0.103
beta ITEM_15.c1	0.442	0.202	0.045	0.839
beta ITEM_15.c2	−0.516	0.237	−0.980	−0.052
beta ITEM_15.c3	−2.321	0.289	−2.887	−1.756
beta ITEM_15.c4	−5.485	0.430	−6.327	−4.643
beta ITEM_16.c1	0.888	0.274	0.351	1.425
beta ITEM_16.c2	1.176	0.276	0.635	1.716
beta ITEM_16.c3	−0.238	0.313	−0.851	0.376
beta ITEM_16.c4	−2.244	0.360	−2.949	−1.539
beta ITEM_17.c1	1.145	0.254	0.647	1.643
beta ITEM_17.c2	0.856	0.270	0.326	1.386

(continued)

	Estimate	Std. Error	lower CI	upper CI
beta ITEM_17.c3	−1.024	0.321	−1.653	−0.394
beta ITEM_17.c4	−3.034	0.369	−3.757	−2.311
beta ITEM_18.c1	1.274	0.223	0.837	1.711
beta ITEM_18.c2	−0.118	0.261	−0.629	0.392
beta ITEM_18.c3	−2.816	0.352	−3.505	−2.127
beta ITEM_18.c4	−5.981	0.527	−7.013	−4.948
beta ITEM_19.c1	1.044	0.219	0.616	1.473
beta ITEM_19.c2	0.017	0.249	−0.471	0.505
beta ITEM_19.c3	−2.828	0.347	−3.507	−2.148
beta ITEM_19.c4	−5.973	0.523	−6.998	−4.948
beta ITEM_20.c1	0.442	0.190	0.071	0.814
beta ITEM_20.c2	−0.968	0.235	−1.428	−0.508
beta ITEM_20.c3	−3.412	0.319	−4.038	−2.787
beta ITEM_20.c4	−6.726	0.512	−7.731	−5.722
beta ITEM_21.c1	3.449	1.098	1.297	5.602
beta ITEM_21.c2	5.858	1.069	3.762	7.954
beta ITEM_21.c3	5.450	1.063	3.367	7.533
beta ITEM_21.c4	3.884	1.058	1.810	5.958
beta ITEM_22.c1	0.163	0.179	−0.188	0.513
beta ITEM_22.c2	−1.476	0.232	−1.931	−1.021
beta ITEM_22.c3	−4.056	0.328	−4.699	−3.412
beta ITEM_22.c4	−8.048	0.668	−9.358	−6.738
beta ITEM_23.c1	0.875	0.230	0.425	1.326
beta ITEM_23.c2	0.401	0.250	−0.089	0.891
beta ITEM_23.c3	−1.891	0.319	−2.516	−1.265
beta ITEM_23.c4	−4.084	0.381	−4.831	−3.337
beta ITEM_24.c1	1.684	0.382	0.935	2.434
beta ITEM_24.c2	2.623	0.373	1.893	3.354
beta ITEM_24.c3	1.162	0.398	0.381	1.943
beta ITEM_24.c4	−1.082	0.440	−1.945	−0.219
beta ITEM_25.c1	1.535	0.257	1.031	2.039
beta ITEM_25.c2	0.776	0.280	0.227	1.325
beta ITEM_25.c3	−1.601	0.343	−2.273	−0.929

(continued)

	Estimate	Std. Error	lower CI	upper CI
beta ITEM_25.c4	−4.614	0.471	−5.537	−3.691
beta ITEM_26.c1	0.587	0.198	0.199	0.976
beta ITEM_26.c2	−0.549	0.234	−1.007	−0.091
beta ITEM_26.c3	−3.279	0.331	−3.927	−2.631
beta ITEM_26.c4	−6.696	0.550	−7.774	−5.617
beta ITEM_27.c1	1.548	0.371	0.821	2.274
beta ITEM_27.c2	2.467	0.360	1.761	3.173
beta ITEM_27.c3	1.250	0.382	0.501	2.000
beta ITEM_27.c4	−1.515	0.445	−2.388	−0.643
beta ITEM_28.c1	1.168	0.246	0.685	1.651
beta ITEM_28.c2	0.793	0.263	0.278	1.308
beta ITEM_28.c3	−1.750	0.334	−2.404	−1.096
beta ITEM_28.c4	−4.713	0.463	−5.620	−3.805
beta ITEM_29.c1	1.932	0.333	1.280	2.584
beta ITEM_29.c2	2.041	0.339	1.375	2.706
beta ITEM_29.c3	−0.127	0.381	−0.874	0.619
beta ITEM_29.c4	−3.133	0.482	−4.079	−2.188
beta ITEM_30.c1	1.555	0.310	0.949	2.162
beta ITEM_30.c2	1.842	0.313	1.229	2.456
beta ITEM_30.c3	−0.244	0.356	−0.941	0.453
beta ITEM_30.c4	−3.311	0.465	−4.222	−2.399
beta ITEM_31.c1	1.523	0.245	1.044	2.003
beta ITEM_31.c2	0.420	0.274	−0.116	0.956
beta ITEM_31.c3	−2.343	0.360	−3.047	−1.638
beta ITEM_31.c4	−5.535	0.533	−6.580	−4.489
beta ITEM_32.c1	1.667	0.252	1.173	2.162
beta ITEM_32.c2	0.488	0.281	−0.063	1.039
beta ITEM_32.c3	−2.361	0.367	−3.080	−1.642
beta ITEM_32.c4	−7.547	1.073	−9.650	−5.444

Appendix E. The Item fit statistics for the Partial Credit Model

Itemfit Statistics:

	Chisq	df	p-value	Outfit MSQ	Infit MSQ	Outfit t	Infit t	Discrim
ITEM_1	231.067	222	0.324	1.036	1.036	0.410	0.414	0.594
ITEM_2	275.753	222	0.008	1.237	1.220	2.456	2.313	0.536
ITEM_3	197.522	222	0.880	0.886	0.878	−1.283	−1.392	0.682
ITEM_4	212.201	222	0.670	0.952	0.958	−0.462	−0.419	0.625
ITEM_5	196.273	222	0.892	0.880	0.892	−1.314	−1.201	0.666
ITEM_6	202.042	222	0.828	0.906	0.919	−1.009	−0.872	0.635
ITEM_7	204.846	222	0.789	0.919	0.936	−0.808	−0.640	0.620
ITEM_8	186.398	222	0.961	0.836	0.850	−1.754	−1.623	0.676
ITEM_9	213.859	222	0.640	0.959	0.944	−0.423	−0.584	0.617
ITEM_10	283.557	222	0.003	1.272	1.158	2.596	1.699	0.619
ITEM_11	180.763	222	0.980	0.811	0.800	−2.195	−2.385	0.700
ITEM_12	176.444	222	0.989	0.791	0.829	−2.306	−1.868	0.700
ITEM_13	214.745	222	0.624	0.963	0.966	−0.383	−0.358	0.668
ITEM_14	297.426	222	0.001	1.334	1.318	3.287	3.169	0.483
ITEM_15	257.095	222	0.053	1.153	1.133	1.584	1.436	0.591
ITEM_16	211.348	222	0.685	0.948	0.943	−0.551	−0.617	0.688
ITEM_17	196.650	222	0.889	0.882	0.887	−1.304	−1.278	0.706
ITEM_18	218.775	222	0.549	0.981	0.950	−0.157	−0.473	0.634
ITEM_19	217.598	222	0.571	0.976	0.965	−0.223	−0.332	0.634
ITEM_20	209.570	222	0.715	0.940	0.955	−0.607	−0.450	0.648
ITEM_21	196.796	222	0.887	0.882	0.896	−1.290	−1.195	0.651
ITEM_22	323.997	222	0.000	1.453	1.467	4.117	4.328	0.380
ITEM_23	242.551	222	0.164	1.088	1.123	0.945	1.327	0.588
ITEM_24	206.002	222	0.772	0.924	0.937	−0.797	−0.661	0.651
ITEM_25	285.973	222	0.002	1.282	1.305	2.755	2.959	0.456
ITEM_26	219.143	222	0.542	0.983	1.020	−0.153	0.237	0.598
ITEM_27	196.411	222	0.891	0.881	0.874	−1.291	−1.374	0.663
ITEM_28	179.227	222	0.984	0.804	0.818	−2.203	−2.033	0.695
ITEM_29	170.074	222	0.996	0.763	0.763	−2.693	−2.711	0.737

(continued)

	Chisq	df	p-value	Outfit MSQ	Infit MSQ	Outfit t	Infit t	Discrim
ITEM_30	164.338	222	0.999	0.737	0.741	−3.013	−3.003	0.751
ITEM_31	201.314	222	0.837	0.903	0.897	−0.983	−1.041	0.652
ITEM_32	167.007	222	0.998	0.749	0.761	−2.864	−2.735	0.712

6 Bibliography

6.1 Dictionaries and other sources

CIDE = *Cambridge international dictionary of English*. Ed. by Procter, Paul. Cambridge: Cambridge University Press. 1995.

CEFR = *The common European framework of reference for languages: learning, teaching, assessment*. Ed. by Council of Europe. 2001 [https://rm.coe.int/1680459f97;lastaccess:21.05.2023].

CEFR/CV = *The common European framework of reference for languages: learning, teaching, assessment: companion volume*. Ed. by Council of Europe. 2020 [https://rm.coe.int/common-european-frame-work-of-reference-for-languages-learning-teaching/16809ea0d4;lastaccess:21.05.2023].

COBUILD = *Collins COBUILD English dictionary*. Ed. by Sinclair, John M. London: Harper Collins Publisher. 1995 [1987 Ed. J.M.Sinclair].

DIALANG = A diagnostic language assessment system for adult learners. Författare: A. Huhta, S. Luoma, M. Oscarson, K. Sajavaara, S. Takala, A. Teasdale. I Council of Europe,Common European Framework of Reference for Languages: Learning,Teaching, Assessment. Case Studies. (2002) Strasbourg: Council of Europe Publishing.

ISED = *Idiomatic syntactic English dictionary*. Ed. by Hornby, Albert S., Gatenby, E.V., and Wakefield, H. Tokyo: Kaitakusha 1943.

LDOCE = *Longman dictionary of contemporary English*. Ed. by Hornby, Albert S. Oxford: Oxford University Press 1995 [1948 Comp. A.S. Hornby].

MEDAL = *Macmillan English dictionary for advanced learners*. Ed. by Rundell, Michael. Oxford: Macmillan Education 2002.

OALD = *Oxford advanced learner's dictionary*. Ed. by Crowther, Jonathan. Oxford: Oxford University Press 1995 [1948 Comp. A. S. Hornby].

6.2 Academic literature

Andersen, Erling B. (1972): The numerical solution of a set of conditional estimation equations. In: *Journal of the Royal Statistical Society* 34:1, 42–54 [https://doi.org/10.1111/j.2517-6161.1972.tb00887.x].

Atkins, Beryl T. Sue (1996): Bilingual dictionaries: past, present and future. In: Gellerstam Martin/Järborg, Jerker/Malmgren, Sven-Göran/Norén, Kerstin/Rogström, Lena/Papmehl, Catarina Röjder (eds.): *Euralex '96 proceedings*. Göteborg University, 515–546.

Atkins, Beryl T. Sue/Varantola, Krista (1997): Monitoring dictionary use. In: *International Journal of Lexicography* 10:1, 1–45.

Béjoint, Henri (1981): The foreign student's use of monolingual English dictionaries: A study on language needs and reference skills. In: *Applied Linguistics* 2:3, 207–222.

Béjoint, Henri (1994): *Tradition and innovation in modern English dictionaries*. Oxford: Oxford University Press.

Béjoint, Henri/Moulin, André (1987): The place of the dictionary in an EFL programme. In: Cowie, Anthony P. (ed.): *The dictionary and the language learner: Papers from the EURALEX seminar at the University of Leeds*. Tübingen: Niemeyer, 97–113.

Cowie, Anthony P. (2000): *English dictionaries for foreign learners: a history*. Oxford: Oxford University Press.

Gavriilidou, Zoe (2013): Development and validation of the strategy inventory for dictionary use (S.I.D.U.). In: *International Journal of Lexicography* 26:2, 135–153.

Gavriilidou, Zoe (2014): Translation, cultural adaptation and preliminary psychometric evaluation of the English version of 'Strategy Inventory for Dictionary Use' (S.I.D.U.). In: Abel, Andrea/Viettori, Chiara/Ralli, Natascia (eds.): *Proceedings of the XVI Euralex international congress*. Institute for Specialised Communication and Multilingualism, 225–235.

Gavriilidou, Zoe/Mavrommatidou, Stavroula (2016): Construction of a tool for the identification of electronic dictionary users' skills: test specification and content validity. In: *Proceedings of the XVII Euralex International Congress*. Tbilisi, 168–178.

Harvey, Keith/Yuill, Deborah (1997): A study of the use of a monolingual pedagogical dictionary by learners of English engaged in writing. In: *Applied Linguistics* 18:3, 253–278.

Hartmann, Reinhard R.K. (1999): Case study: The Exeter university survey of dictionary use. In: Hartmann,Reinhard R.K. (ed.): *Dictionaries in language learning*. Berlin, Freie Universität Berlin, 36–52.

Hartmann, Reinhard R. K. (2001): *Teaching and researching lexicography*. Harlow et al.: Longman.

Hartmann, Reinhard R.K./James, Gregory (2002): *Dictionary of lexicography*. London: Routledge.

Higuchi, Masayuki (2012): *Eigo jiten katuyou gaido – jisho no joho wo yomitoru tame no hissu chisiki* (A guide to English dictionaries). Kaitakusha.

Kawamoto, Naho/Tono, Yukio (2023): Developing illustrative "can do" descriptors for L2 dictionary use: a preliminary version. In: *Asialex 2023 Proceedings*. Yonsei University, 103–112.

Kosem, Iztok/Lew, Robert/Müller-Spitzer, Carolin/Silveira, Maria Ribeiro/Wolfer, Sascha (2019): The image of the monolingual dictionary across Europe. The results of the European survey of dictionary use and culture. In: *International Journal of Lexicography* 32:1, 92–114.

Koyama, Toshiko (2013): Enhancing learners' e-dictionary skills through strategy training. In: Kwary,Deny A./Musyhda,Lilla/Wulan,Nur (eds.): *Lexicography and dictionaries in the information age: Selected papers from the 8th ASIALEX International Conference*, *Bali*, *Indonesia*, Airlangga University, 173–178.

Lew, Robert (2013): Online dictionary skills. In: Gantar, Polona/Kallas, Jelena/Kosem, Iztok/Krek, Simon/Langemets, Margit/Tuulik, Maria (eds.): *Electronic lexicography in the 21st Century: Thinking Outside the Paper*. Institute for Applied Slovene Studies/Eesti Keele Instituut, 16–31.

Lew, Robert/Galas, Katarzyna (2008): Can dictionary skills be taught? The effectiveness of lexicographic training for primary-school-level Polish learners of English. In: *Proceedings of the XIII EURALEX International Congress*. Universitat Pompeu Fabra, 1273–1285.

Lew, Robert/Mitton, Roger (2011): Not the word I wanted? How online English learners' dictionaries deal with misspelled words. In: *Proceedings of eLex 2011*. Institute for Applied Slovene Studies, 165–174.

Mair, Patrick/Hatzinger, Reinhold (2007): Extended Rasch modeling: the eRm package for the application of IRT models in R. In: *Journal of Statistical Software* 20:9: 1–20.

Mavrommatidou, Stavroula/Gavriilidou, Zoe/Markos, Angelos (2019): Development and validation of the strategy inventory for electronic dictionary use (SIEDU). In: *International Journal of Lexicography* 32:4, 393–410.

Nesi, Hilary (1999): The specification of dictionary reference skills in higher education. In: Hartmann, R.R.K. (ed.): *Dictionaries in Language Learning*. Berlin, Freie Universität Berlin, 53–67.

Nesi, Hilary (2015): Dictionary use by English language learners. In: *Language Teaching* 47:1, 38–55.

Nesi, Hilary/Meara, Paul (1994): Patterns of misinterpretation in the productive use of EFL dictionary definitions. In: *System* 22:1, 1–15.

Neubach, Abigail/Cohen, Andrew D. (1988): Processing strategies and problems encountered in the use of dictionaries. In: *Dictionaries: The Journal of the Dictionary Society of North America* 10, 1–19.

North, Brian/Piccardo, Enrica (2019): Developing new CEFR descriptor scales and expanding the existing ones: constructs, approaches and methodologies [https://www.dgff.de/assets/Uploads/ZFF-2-2019-01-North-Piccardo.pdf;lastaccess:21.05.2023].

Nuccorini, Stefania (1992): Monitoring dictionary use. In: Tommola, Hannu/Varantola, Krista/Salmi-Tolonen, Tarja/Schopp, Jürgen (eds.): *EURALEX '92 Proceedings*. University of Tampere, 89–102.

Padgett, R. Noah/Morgan, Grant (2020): Using the *eRm* package for Rasch modeling. In: *Measurement Interdisciplinary Research and Perspectives*, July 2020 [DOI: 10.1080/15366367.2020.1732155].

Scholfield, Phil (1982): Using the English dictionary for comprehension. In: *TESOL Quarterly* 16:2, 185–194.

Tono, Yukio (2001): *Research on dictionary use in the context of foreign language learning*. Tübingen: Niemeyer.

Tono, Yukio/Kawamoto, Naho (in press): Developing illustrative "Can Do" descriptors for dictionary use by foreign language learners. In: *LEXICOGRAPHY: Journal of ASIALEX*.

Winkler, Birgit (2001): Students working with an English learner's dictionary on CD-ROM. In: *Information technology and multimedia in English language teaching conference, Hong Kong, June 1–2, 2001*. Hong Kong, The Hong Kong Polytechnic University, 227–254.

Wingate, Ursula (2004): Dictionary use – the need to teach strategies. In: *Language Learning Journal* 29, 5–11.

Andrea Abel

The use of (online) dictionaries at the interface of curricular requirements and practice

Abstract: The paper explores the role of lexicographic resources in the South Tyrolean (Italy) educational context against the backdrop of legal provisions (Das neue Autonomi-estatut 2019/1972), taking into account both normative requirements and their application in practice. The focus is on two questions that have been little researched so far, not only in the specific context but also internationally (cf. Abel 2024, 2022, Nied Curcio 2022): To what extent are lexicographic resources represented in the school framework guidelines? How are they actually used in schools? For the case study presented here, the South Tyrolean framework guidelines provided by the school boards at all levels of education for German, Italian and English were examined by means of a document analysis. In a second step, a questionnaire survey with language teachers of the three languages determined the actual use of lexicographic resources (cf. Abel 2024, 2022).

Keywords: dictionaries, lexicographic resources, dictionary use, language teaching

1 Introduction

Dictionaries are an important tool in language teaching. This traditionally applies to print dictionaries, usually from one of the well-known publishers. For a long time, the focus in L2 teaching was on monolingual dictionaries (cf. Nied Curcio 2022). Traditional lexicographic products have long since faced stiff competition from electronic dictionaries. These also include user-generated resources, translation programmes, etc. (cf. Udry/Berthele 2023; Abel/Meyer 2016). Many of them are free of charge, and many are bilingual or allow a wide range of language combinations to be selected.

The *Villa-Vigoni Theses* 2018 describe "dictionaries of the future" in very broad terms as "lexical or linguistic information systems in which existing lexicographic data are conflated, multilingualism and linguistic variety are entrenched, and which provide people, when they are confronted with gaps in their knowledge, with an answer as well as support in the writing and formulation processes of texts" (cf. Villa-Vigoni Thesis 2018). They thus include the broad spectrum of existing lexicographic resources, including those that go beyond the classic dictionary concept.

Dictionaries, now also digital resources in the broader sense, are traditionally used in the classroom on the basis of curricular guidelines. This practice is consistent

---

Note: English translations by the author are indicated in square brackets with the addition [TRANS].

Andrea Abel, Free University of Bozen-Bolzano, Eurac Research

with the approach adopted in the Italian Province of Bolzano/Bozen – South Tyrol (South Tyrol for short), from which the data in this article originates. The starting point is the legal provisions of the South Tyrolean school system (cf. Das neue Autonomiestatut 2019/1972) and the important role that language in general and multilingualism in particular play there. The article focusses on the analysis of normative requirements and on experiences from school practice collected via a questionnaire survey with language teachers. It addresses the following questions: To what extent are lexicographical resources represented in the school framework guidelines? Which ones are actually used in schools? To date, there has been limited research on both questions: analyses of school curricula have not been extensively conducted, and little information is available, especially at primary level (cf. Egido Vicente 2022; Nkomo 2015). Dictionary use in L1 and L2 lessons has also not been widely investigated (cf. Urdry/Berthele 2023; Nied Curcio 2022; Abel 2024). This article aims to present an overview of both dimensions through a case study within the South Tyrolean school system, with particular emphasis on the medium used (printed vs. digital).[1]

2 The school system in South Tyrol

The school system in the officially multilingual province of South Tyrol generally follows national regulations. Nevertheless, in accordance with minority protection measures, it incorporates special features outlined in the Autonomy Statute of 1972 (cf. Das neue Autonomiestatut 2019/1972). Among other things, the Statute regulates language rights and the formation of the province's three recognised language groups, that is, German, Italian and Ladin. These groups differ both in terms of their size and demographic distribution. According to the 2011 census, the German language group makes up 69.41% of the population, the Italian 26.06% and the Ladin 4.53%.[2] While the German language group is spread across the entire region, predominantly in rural areas, the Italian language group is concentrated in the urban centres. The Ladin population resides mainly in two Dolomite valleys.

These special features include separately organised school boards for German, Italian and Ladin. Article 19 of the 1972 Autonomy Statute guarantees the right to "instruction [. . .] in the mother tongue of the pupils, i.e. in Italian or German" [TRANS] and mandates the teaching of German or Italian as a second language (cf. Das neue Autonomiestatut 2019/1972: 135). English is taught as a foreign language, as in the entire national territory. The school system is divided into a five-year primary level, a three-year lower secondary level, and a five-year upper secondary level offering different pathways in accordance with national regulations.

---

1 The article is largely based on Abel 2024, published in German.
2 See the ASTAT Provincial Statistics Institute.

In Italy, schools enjoy a high degree of autonomy. The state provides only framework guidelines describing relatively general competency objectives for all school levels, while in South Tyrol special language-related rules are enforced. However, each school is responsible for organising the concrete subject curricula based in accordance with these guidelines.

3 Data and method

The normative requirements were analysed using the South Tyrolean framework guidelines for schools with German and Italian as the language of instruction across the three educational levels. The analysis was carried out for German and Italian as the first (L1) and as the second language (L2), as well as for English as a foreign language (L3/EN) (Rahmenrichtlinien DE, Rahmenrichtlinien IT). The guidelines delineate general competency objectives in the form of descriptors for skills and knowledge for each of the three school levels and the respective intermediate levels. The competencey objectives are thus subdivided as follows:

– Primary level: triennium (1st, 2nd and 3rd grade) and biennium (4th and 5th grade) in the German school system vs. biennium (1st and 2nd grade) and triennium (3rd, 4th and 5th grade) in the Italian school system (corresponding to grades 1–5)
– Secondary level I: Biennium (1st and 2nd grade) and monoennium (3rd grade) in both school systems (corresponding to grades 6–8)
– Secondary level II: 1st biennium (1st and 2nd grade), 2nd biennium (3rd and 4th grade) and 5th grade in both school systems[3] (corresponding to grades 9–13).

Secondary level II includes grammar and technical schools, each offering specialised subject areas and subjects. The guidelines for L1, L2 and L3 are identical for all school types. However, the framework guidelines for the German and Italian education systems are not identical: they are drawn up independently of each other and are available for both school systems in the respective language of instruction.

For the study, the descriptors of the three language subjects L1, L2 and L3 of the two school systems were analysed and qualitatively evaluated using content analysis (cf. Mayring 2016: 114–121). All descriptors with references to dictionaries or comparable linguistic resources were filtered out. The document analysis – as well as the questionnaire survey – include various forms of lexicographic resources, ranging from simple dictionaries to different forms of lexical information systems.[4] A summary of

---

3 The names of the intermediate levels are taken from the framework guidelines.
4 In this article, the terms *lexical resource, lexicographic resource* etc. are used synonymously with *lexical information system* (see introduction).

the analysis of the framework guidelines was sent to local school authorities responsible for language issues with a request for critical feedback (cf. Abel 2022).[5]

After conducting the document analysis, an online questionnaire survey was carried out between the beginning of May and the end of June 2022. All teachers responsible for teaching L1, L2 and L3/EN at all school levels in South Tyrol schools with German and Italian as the language of instruction were invited to participate by email via the school authorities. A total of 644 teachers took part. In the 2021/22 school year, the total number of language teachers in both school systems was 9,330 (7,194 in schools with German as the language of instruction and 2,316 in schools with Italian as the language of instruction). 542 teachers completed the questionnaire in its entirety, representing 5.8% of the total number of teachers. Only fully completed questionnaires were included in the analyses. The data was analysed using descriptive statistics.

The questionnaire survey was conducted online using SurveyMonkey software. Depending on the branching logic, a maximum of 35 questions could be answered. The questionnaire largely consisted of closed questions. Answers to the semi-open questions were classified into categories in a second step. The questions allowed for both single and multiple answers.

Demographic data was collected on the language of instruction, the school level, the school type, the language subject, on gender and age. The content-related questions centred on the use of dictionaries in the classroom. The initial question was whether dictionaries were used at all. If the answer was negative, respondents were directed to a final question prompting them to provide reasons for their answer. Conversely, a positive answer was followed by questions on the use of print and/or online dictionaries (no/yes – which ones?), criteria for dictionary selection (subject curriculum, recommendations, etc.), types of linguistic dictionary activities during lessons (receptive and/or productive) and specific areas of practice (look-up, structure, spelling, meaning, etc.). Finally, participants were asked about seven specific lexical online resources,[6] classified into three categories not immediately evident to the respondents:

(a) translation tools: DeepL, Linguee, Reverso Context,
(b) (semi-)collaborative dictionaries: LEO, Wiktionary,
(c) dictionaries, mostly automatically generated from occasionally unclear sources: Bab.la, Dict.cc.

Teachers were asked about their usage of each resource and the rationale behind positive or negative responses was determined (scope, reliability, up-to-dateness, unfamiliarity,

---

5 The feedback was obtained from the Pedagogical Department and the School Inspectorate of the German Directorate of Education, and from the Italian-speaking primary, secondary and high schools of the Italian Directorate of Education.
6 They were labelled "dictionary resources" at this point in the questionnaire. The following explanation was given: "A dictionary resource is a resource with different information on vocabulary."

etc.). The reason for there being only explicit questions about a few tools was to ensure that the questionnaire could be completed in approximately five minutes.

If survey participants answered in the affirmative to the question of whether they use print and/or online dictionaries in class, they had to name at least one and a maximum of three specific resources in a free-response format. During the analysis, the answers were coded according to various criteria, including monolingual vs. bilingual dictionaries. As some of the dictionary names provided by participants did not clearly identify a specific resource, an additional category labelled "not categorisable" was created for the analysis. Data from this category was excluded from further consideration. For the present analysis, the number of dictionaries named by participants – whether one, two or three – was also not taken into account. Instead, people who provided at least one entry for either the monolingual or the bilingual dictionary category were counted. However, this approach only allowed for the recording of data from participants who took the initiative to use the free-response field.

4 Analyses and results

4.1 Framework guidelines

Lexicographic resources play an important role in the framework guidelines of both German and Italian schools. They are mentioned at all school levels, sometimes explicitly (e.g., "reference work(s)", "means of reference", "dictionaries", "lexica", "printed and online dictionaries" [TRANS], "specialised glossaries" [TRANS], "monolingual and bilingual dictionaries, including multimedia" [TRANS]), sometimes implicitly, i.e., without clear reference to lexical information systems (e.g., "Internet", "information sources", "language resources", "aids, including digital" [TRANS], "digital and printed sources" [TRANS]; cf. in more detail in Abel 2022, 2024). A whole range of different terms are used.

There are noticeably fewer diverse terms in the German documents, which tend to lean towards more general terminology. Conversely, the Italian documents exhibit greater term variation and occasionally offer more specificity by using more precise attributes. For example, only the Italian framework guidelines indicate whether monolingual and/or bilingual or printed and/or online resources[7] should be used.

The choice of terms to describe different lexical information systems appears to be relatively random. It is not clear whether terms such as "dictionary", "reference work", "encyclopaedia" or "teaching reference aid" [TRANS] are to be understood as synonyms or not (cf. Rahmenrichtlinien DE, Rahmenrichtlinien IT).

---

7 Only once is "digital" explicitly mentioned as a possibility in the German documents.

In a second step, the (co-)contexts (school system, school levels, language subjects) of the terminology used to describe lexical information systems were analysed. The following extracts from the descriptors of the framework guidelines serve to illustrate this.

Framework guidelines for schools with German as the language of instruction:
- "Dictionary" [TRANS] (GS L1: 40)[8]
- "Prepared teaching materials for reference" [TRANS] (GS L2: 47, 48)
- "Reference works" [TRANS] (MS L2: 49)
- "Reference works and subject-specific works" [TRANS] (MS L2: 51)
- "Using reference works", "Dictionaries, encyclopaedias" [TRANS] (MS EN: 52)
- "Obtain information from the Internet and other sources, "reference works, English websites" [TRANS] (MS EN: 56)
- "Appropriate linguistic means" [TRANS] (OS EN: 51)
- "Obtain information on meaning, pronunciation, grammar and spelling rules from reference works – including digital ones", "Structure, explanation of symbols and sound writing of reference works" [TRANS] (OS EN: 52)

Framework guidelines for schools with Italian as the language of instruction:
- "Use different strategies and tools to form hypotheses about unknown words and understand their meaning (by observing similarities between words based on context and using the dictionary)", "basic types of information available in the dictionary, symbols and abbreviations" [TRANS] (GS L1: 78)
- "Use a standard dictionary to recognise basic information in the individual entries and to grasp the meaning and etymology of the words", "basic types of information in a dictionary: some symbols and abbreviations" [TRANS] (GS L1: 78)
- "Extract information from a dictionary or multimedia encyclopaedia" [TRANS] (GS L2: 85)
- "Use different types of dictionaries to recognise different information in individual entries, for self-correction, to solve linguistic doubts and to discover the etymology of words", "Information in the dictionary: symbols and abbreviations" [TRANS] (MS L1: 80)
- "Use basic monolingual and bilingual dictionaries efficiently, including multimedia dictionaries", "printed and online dictionaries and their uses" [TRANS] (OS L1: 20)
- "Be able to understand, analyse and, if necessary, interpret different authentic texts – also from the media – with or without the help of dictionaries, including texts of different literary genres, entire literary works or excerpts from them", "dictionaries of different kinds (monolingual, bilingual, online . . .)" [TRANS] (OS L2: 24)

---

8 Legend: GS = Grundschule (primary level), MS = Mittelschule (lower secondary level), OS = Oberschule (upper secondary level); language subjects L1, L2, L3/EN; page number of the Framework Guidelines.

–   "Use different reference and search tools appropriately, including new information and communication technologies", "use printed reference works (encyclopaedias, dictionaries, specialised glossaries, etc.)" [TRANS] (OS EN: 30)

(Rahmenrichtlinien DE, Rahmenrichtlinien IT).

Once again, the Italian framework guidelines tend towards greater wording detail. The documents of the two school systems also differ in the way or frequency with which they mention lexicographical resources for the various school levels and language subjects. In the competency descriptions of German schools, these resources are mentioned more frequently in the lower school levels, whereas in those of Italian schools they are more frequently referenced in higher school levels. In the German schools, dictionaries tend to play a role in connection with L3, followed by L2, while in Italian schools they hold particular significance in connection with L2, followed by L3. Figure 1 illustrates how frequently lexical resources are referenced in the framework guidelines of both the German and Italian school systems (number of explicit references (X) and implicit references (Y) or references to zero occurrences (/) at the individual school levels or intermediate levels[9] and the individual language subjects (L1, L2, L3/EN) (cf. Abel 2022: 455).

The framework guidelines of both school systems formulate a slight progression with regard to the use of lexical resources. However, the emphasis is set differently. In primary level I, the German framework guidelines focus on so-called prepared teaching materials with regard to L2, they mention general reference works for the first two grades of secondary level I without any adaptation for the target group, and add a subject reference for the third and final grade of secondary level I, e.g., "Prepared teaching materials for reference" [TRANS] (GS L2: 47, 48) → "Reference works" [TRANS] (MS grade 1+2 L2: 49) → "Reference works and subject-specific works" [TRANS] (MS grade 3 L2: 51). While the descriptors for L2 and L3 show a progression, this is not the case for L1. Dictionary resources receive minimal attention in relation to the L1. This is different in the Italian framework guidelines. Here, a progression can also be seen in the L1 descriptors, as the following examples show: "use different strategies and tools to speculate about unknown words and understand their meaning (by observing similarities between words based on context and using the dictionary)" [TRANS] (GS L1: 78) → "Use different types of dictionaries to recognise different information in individual entries, for self-correction, to solve linguistic doubts and to discover the etymology of words [TRANS]" (MS L1: 80) → "use basic monolingual and bilingual dictionaries efficiently, including multimedia [TRANS]" (OS L1: 20). In primary level I, an initial approach to dictionaries is introduced along with various strategies aimed at helping learners infer word meanings. At lower secondary level, students are expected to use dictionaries to

---

9 The numbers 1–5 indicate the classes of the individual intermediate levels; those assigned to different intermediate levels in the two school systems are shown in brackets (see section 3).

solve specific linguistic problems or doubts. At upper secondary level, focus is placed on mastering the effictive use of different types of dictionaries.

			Italian School	German School
Primary School				
	L1	1+2(+3)	/	X
		(3+)4+5	XX	Y
	L2	1+2(+3)	/	X
		(3+)4+5	X	X
	EN	1+2(+3)	/	/
		(3+)4+5	/	/
Lower Sec. School				
	L1	1+2	YX	/
		3	X	/
	L2	1+2	/	Y
		3	X	Y
	EN	1+2	X	X
		3	/	Y
Upper Sec. School				
	L1	1+2	YX	/
		3+4	X	/
		5	X	/
	L2	1+2	X	/
		3+4	XX	/
		5	XX	/
	EN	1+2	X	YX
		3+4	X	/
		5	X	/

Figure 1: References to lexical resources in the school framework guidelines.

4.2 Questionnaire survey

Of the 542 completed questionnaires, 79.15% were filled out by teachers from schools with German as the language of instruction and 20.30% from schools with Italian as the language of instruction.[10] The distribution of teachers for L1, L2 and English throughout South Tyrol is comparable, with 77.10% at schools where German is the language of instruction and 22.89% at schools where Italian is the language of instruction. Female teachers provided 85.98% of the answers, while male teachers accounted for only 11.62%.[11] 41.33% teach German or Italian as L1, 29.52% as L2, and 21.96% are English teachers.[12]

---

10 0.55% stated "Other".

11 The rest is divided between "Diverse" and "I don't want to specify".

12 The rest teach other subjects.

		Where do you teach?						Total	
		At a school with German as the language of instruction		At a school with Italien as the language of instruction		Other			
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
At which school level do you teach?	primary school	181	42,2%	36	32,7%	1	33,3%	218	40,2%
	lower secondary school	94	21,9%	25	22,7%	0	0,0%	119	22,0%
	upper secondary school	154	35,9%	49	44,5%	2	66,7%	205	37,8%
	Total	429	100,0%	110	100,0%	3	100,0%	542	100,0%
What subject do you teach?	L1	187	43,6%	37	33,6%	0	0,0%	224	41,3%
	L2	113	26,3%	46	41,8%	1	33,3%	160	29,5%
	L3 (English)	101	23,5%	18	16,4%	0	0,0%	119	22,0%
	other	28	6,5%	9	8,2%	2	66,7%	39	7,2%
	Total	429	100,0%	110	100,0%	3	100,0%	542	100,0%
What is your gender?	female	371	86,5%	93	84,5%	2	66,7%	466	86,0%
	male	51	11,9%	12	10,9%	0	0,0%	63	11,6%
	diverse	1	0,2%	1	0,9%	0	0,0%	2	0,4%
	I don't want to specify	6	1,4%	4	3,6%	1	33,3%	11	2,0%
	Total	429	100,0%	110	100,0%	3	100,0%	542	100,0%
To which age group do you belong?	20-30 years	40	9,3%	10	9,1%	1	33,3%	51	9,4%
	31-40 years	70	16,3%	18	16,4%	0	0,0%	88	16,2%
	41-50 years	146	34,0%	38	34,5%	1	33,3%	185	34,1%
	51-60 years	142	33,1%	30	27,3%	1	33,3%	173	31,9%
	61-70 years	23	5,4%	11	10,0%	0	0,0%	34	6,3%
	I don't want to specify	8	1,9%	3	2,7%	0	0,0%	11	2,0%
	Total	429	100,0%	110	100,0%	3	100,0%	542	100,0%

Figure 2: Overview of demographic characteristics (school level, subject, gender, age group) of respondents at South Tyrolean schools with German and Italian as the language of instruction.[13]

---

13 The questions listed in the figures of this article are translations of the German and Italian original versions.

Most teachers fall within the age brackets of 41 to 50 and 51 to 60 (34.13% and 31.92% respectively). The proportion of other age groups is much smaller (31–40 years: 16.24%; 21–30 years: 9.41%; 61–70 years: 6.27%). The distributions by gender and age group show hardly any significant differences between the two school systems. In the German school system, there were 10 percentage points more participants in primary schools compared to Italian schools; conversely, the ratio is reversed in secondary schools, with minimal differences observed in middle schools. There are also differences in the distribution of language subjects: L1 (around 10 percentage points difference) and English (around 7 percentage points difference) are more strongly represented in German schools than in Italian schools. L2, however, predominates in Italian schools with approximately a 15 percentage point difference (see Figure 2).

Close to 80% of respondents indicated their use of dictionaries in lessons. This implies that at least one in five teachers do not integrate dictionaries into their teaching. In German schools, 17.48% answered negatively, while in Italian schools the figure was 33.64% (see Figure 3). In both systems, L1 teachers are the primary users of lexical resources, followed by L2 and then L3 teachers. This response distribution does not align with the different weightings outlined in the framework guidelines. The reasons for not using dictionaries in the classroom differ between the two school systems: in the German school system, time constraints and the greater relevance of other aspects are primarily cited, whereas in the Italian school system, the lack of available dictionaries is mentioned.
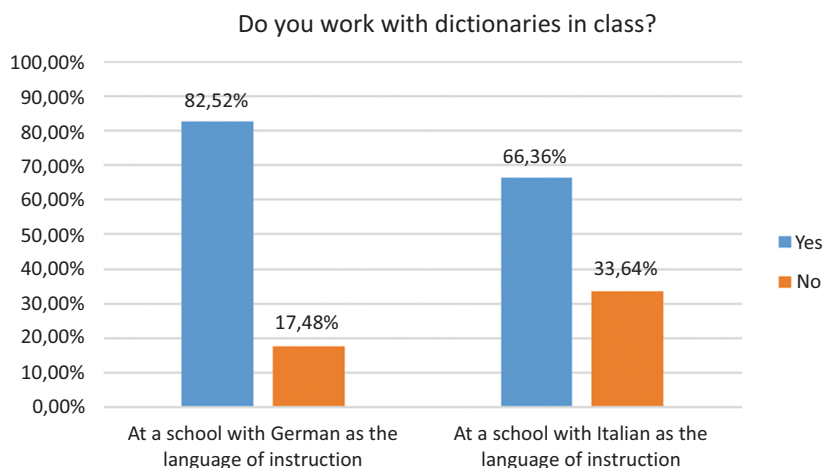
Figure 3: Dictionary work in the classroom.

In the classroom, print dictionaries continue to play a greater role than online dictionaries with 76.98% favouring print and 61.16% in favour of online dictionaries. This applies to both school systems, albeit with differences: print dictionaries are more

common in German schools (80.51% German vs. 60.27% Italian schools), while online dictionaries are favoured in Italian schools (52.47% German vs. 72.60% Italian schools). Some teachers exclusively use one type of dictionary over the other. Figure 4 shows the use of print dictionaries in class, whereas Figure 5 shows that of online dictionaries.
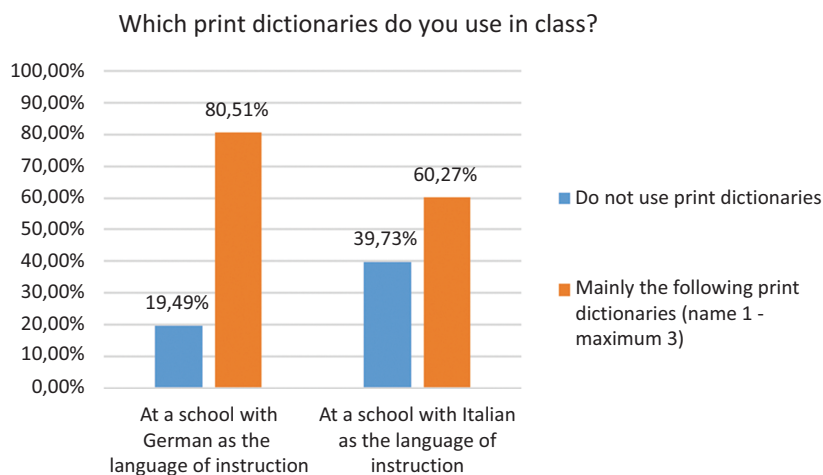
Figure 4: Working with print dictionaries in the classroom..
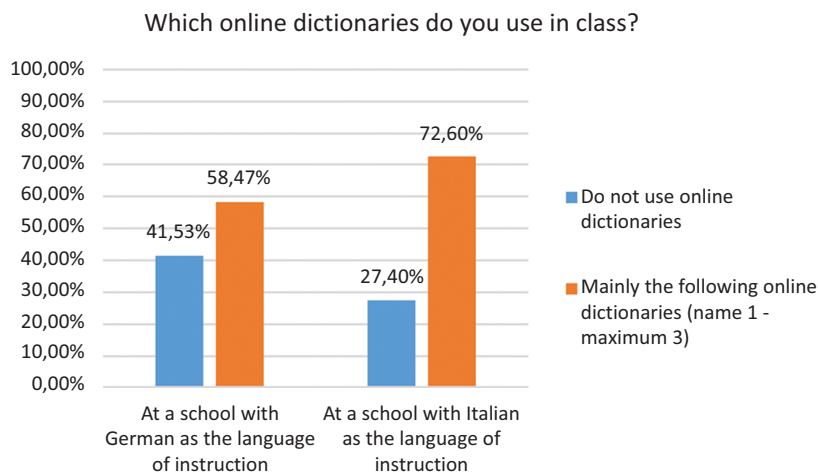
Figure 5: Working with online dictionaries in the classroom.

Additionally, it is noticeable that print dictionaries are more commonly referenced at primary level. Among those who use print dictionaries in class, 44.4% incorporate them into primary school instruction, 24.2% in middle school and 31.4% in high school. Conversely, the preference for online dictionaries is more pronounced at the upper second-

ary level. Among teachers who use online dictionaries during lessons, 26.2% work with them in primary school, 22.1% in middle school and 51.7% in high school. Answers also vary across age groups: although print dictionaries are generally favoured, they are cited more frequently among individuals over the age of 50. In contrast, online dictionaries are more commonly mentioned by those under 40. Regarding dictionary types, monolingual dictionaries are significantly favoured over bilingual dictionaries, while the opposite holds true for online dictionaries.

The monolingual print dictionary is particularly favoured for L1 lessons but is rarely chosen for L2 or English lessons: 57.6% of respondents did not specify the lexical resources used in class in the free response fields provided; of the remaining respondents, 30.4% teach L1. Bilingual print dictionaries, on the other hand, are more frequently used in L2 and English lessons (89.4% no response, around 8% L2 and English). Monolingual online dictionaries are seldom mentioned overall (by approximately 20% of respondents only) and, when they are, it is mainly in the context of L1 lessons. Similarly, bilingual online dictionaries are more commonly used in L2 and English lessons compared to L1 lessons (68.8% no response, 25.5% L2 and English).

When selecting dictionaries, criteria such as availability in the school or classroom and personal preferences generally play the most important role, while recommendations from colleagues, mentions in subject didactic resources or specifications in subject curricula are far behind in comparison.

Dictionaries are mainly used for productive language activities, sometimes for both productive and receptive activities. The preferences for either type of activity vary between the two school systems: in the German-speaking context, dictionaries are predominantly used for productive language activities (61.0% vs. 36.99%), while in Italian-speaking schools there was a more balanced use for both types of activities (56.16% vs. 35.31%). Only a small number of cases saw dictionary usage predominantly selected as an answer option for receptive activities (3.67% in German schools vs. 6.85% in Italian schools). Teachers were also asked to indicate what they mainly practised when using dictionaries in the classroom. Once again, different priorities emerge between the two school systems: in German schools, there tends to be a greater focus on aspects related to dictionary use ("learning about the organisation and structure of dictionaries", "looking things up (finding the information you are looking for)" [TRANS]), whereas Italian schools place more emphasis on various aspects of language use (e.g., "learning the meanings of words and phrases", "checking how to use a word correctly", "learning about synonyms", "finding information about the stylistic level of a word in order to use it appropriately" [TRANS]). Checking the spelling is more relevant in the German environment; it was selected as the second most frequently emphasised aspect after "look up" [TRANS]. It was also frequently mentioned in the Italian school environment but ranks third by some distance after "finding the meaning" [TRANS] and "looking up" [TRANS]. The response distributions for checking grammatical aspects and determining translations are almost identical (see Figure 6)
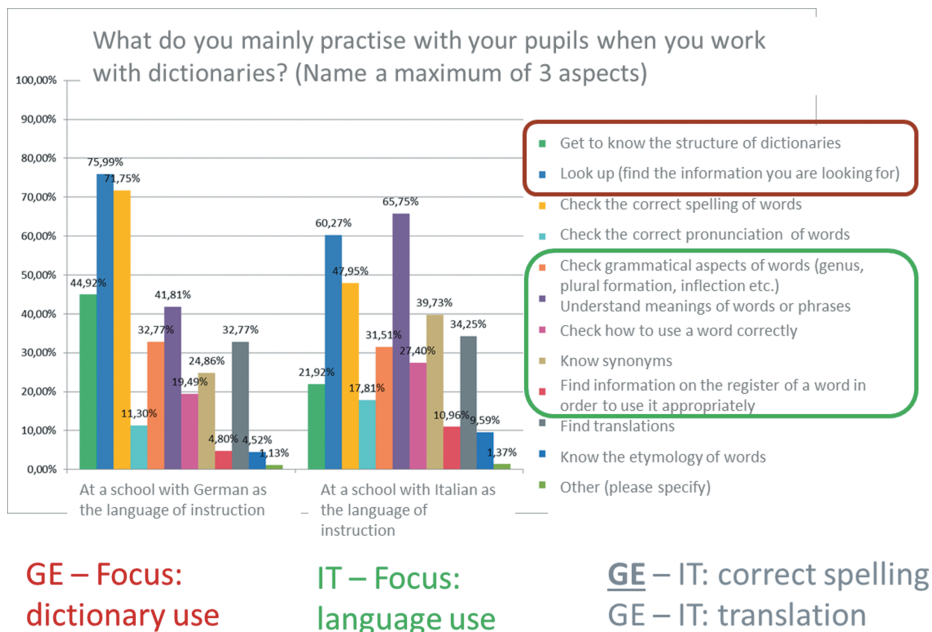
Figure 6: Focus of dictionary work in the classroom.

Regarding the use of online dictionaries, the questionnaire survey sought to investigate the extent to which other lexical resources are now being incorporated into the classroom alongside traditional publisher offerings. Seven widely used resources were selected for in-depth analysis: DeepL, Linguee, Reverso Context, LEO, Wiktionary, Bab.la, Dict.cc. LEO is by far the most frequently used (by 32.8% of those who work with online dictionaries) and Bab.la the least (4.9%). Deepl, Reverso Context, Wiktionary and Dict.cc have similar distributions (between 12.3% and 14.7%), with Linguee slightly trailing behind (8.0%). No clear distribution pattern based on categories such as translation tools, (semi-)collaborative dictionaries and largely automatically generated dictionaries can be inferred from the responses (see section 3).

The main reason for not using DeepL, Linguee, Reverso Context, LEO, Wiktionary, Bab.la and Dict.cc seems to be the respondents' lack of familiarity with them (ranging from 63.6% to 81.4% for the seven tools). The second most common reason (7.2% to 13.1%) is their unsuitability for the age group being taught. Indeed, online dictionaries with a typically adult target audience are generally least used by respondents at the primary level. Other reasons, such as content reliability or topicality, absence of an associated publisher, assumed student familiarity with the resource or its misclassification as a "dictionary", play a marginal role.

The response distributions regarding the reasons for using these resources in the classroom are far less clear: scope emerges as the most frequently selected answer, followed by speed, free usability and reliability. Nonetheless, student use of the resource

is also deemed somewhat significant, whereas content relevance seems to be less important. However, these results should be interpreted with caution, as the absolute response number on the use of individual resources are occasionally very low (ranging from 22 responses for Bab.la to 146 for LEO).

5 Discussion

In this section, we will discuss the main results by comparing them with other studies conducted in the field. Lexical information systems are addressed in the framework guidelines of the South Tyrolean education system across all school levels and L1, L2 and L3 (EN) language subjects. The descriptors also largely recognise a progression across the school levels. A study on school curricula in South Africa (cf. Nkomo 2015: 99) also shows an anticipation in skill progression in terms of dictionary use in language subjects. Similarly to the South Tyrolean documents, the fundamental skills of dictionary use, such as finding information on meaning and spelling, serve as the foundation upon which competencies for using other types of resources are built. In the German-speaking school context of South Tyrol, dictionary skills are also correlated with the type of resource used. This is based on the assumption that the use of adapted reference resources is less demanding than the use of authentic resources, and that the use of specialised language resources represents an additional challenge.

A comparative analysis of the German (in Germany) and Spanish curricula concerning the subjects of German or Spanish as L1 and the first foreign language at primary level reveals an L1 progression within primary school in both countries. However, differences exist, especially between the German federal states. Initially, the emphasis lies on basic reference skills, which are intended to lead to an increasingly differentiated use of dictionaries. The descriptions provided in the Spanish curricula are generally more detailed than those found in the German curricula. In the German context, the use of dictionaries and, at a linguistic level, of word spelling seem to be particularly emphasised. Additionally, the Spanish curricula focus more on lexical and grammatical aspects (cf. Egido Vicente 2022: 193–195). Similarities with the curricula of the two South Tyrolean school systems can be recognised here: the German school system, based on the brief references available, places more emphasis on the use of resources, while the Italian school system focusses more on linguistic aspects. These different emphases are also reflected in the South Tyrolean survey results: when it comes to dictionary work in the classroom, teachers at German schools primarily cite dictionary use, while those at Italian schools cite different aspects of language use. According to the questionnaire results, word spelling plays a particularly important role in the German-speaking schools of South Tyrol. This finding appears to be confirmed in various contexts (cf. Töpel 2012: 292 for Baden-Württemberg). It is sometimes explained by the fact that the spelling dictionary is often perceived as the quintessential example of the

dictionary category for the German language (cf. Engelberg/Lemnitzer 2009: 47; Töpel 2012: 292), especially by L1-speaking lay users (cf. Wiegand/Gouws/Kammerer/Mann/Wolski 2020: 387).

In the school context, understanding the alphabet's structure is considered fundamental for reference activities. This is supported by the results of the curriculum analyses conducted in the German and Spanish primary levels by Egido Vicente (2022: 195). In the German primary level, the focus is almost exclusively on the order of the letters in the alphabet, whereas in the Spanish primary level a wider range of usage skills is mentioned. There is no information on this in the South Tyrolean framework guidelines themselves. However, the handouts provided by the German Pedagogical Department online aimed at creating the subject curricula at the individual schools (Handreichungen DE), contain information on this matter: "Learning the ABCs through play" is referenced here alongside "practising the use of the dictionary" (Handreichungen DE: Grundschule – Deutsch – 2. Klasse: Kompetenzbereich "Schreiben"). Understanding the alphabet will likely remain relevant even in the absence of print dictionaries. For example, it remains essential for tasks such as alphabetising names, dividing queues into groups, creating bibliographies, and more. However, neither the framework guidelines nor the published materials mention search strategies in online lexical resources. This omission persists despite references to digital reference works for the language subjects being present in the framework guidelines. The same observation also applies to the German (in Germany) and Spanish curricular documents, at least for the primary school sector (Egido Vicente 2022: 195). This suggests that, in the education system, a thorough examination of media-specific competencies in the use of lexical resources is still lacking. This assertion finds further support in the outcomes of an empirical survey conducted in a different context. Specifically, with the study involved prospective teachers of German and English as a foreign language at a Hungarian university, some of whom were already working. This survey revealed that the teachers are only slightly familiar with the specific possibilities of online dictionaries, such as search options with placeholders (Márkus/Fajt/Dringó-Horváth 2023: 182–183). When considering the results of the questionnaire survey in South Tyrol, the assumption is also supported by the fact that printed dictionaries are still more frequently used among teachers than electronic ones. In this context, age-specific distribution trends become clear: among teachers aged over 50, there is greater reluctance to use online resources in the classroom. Overall, in the South Tyrolean context, a relatively strong orientation towards print media can still be observed, at least in school practice. However, there seems to be a lack of integration of digital resources into the normative guidelines and the handouts published for this purpose, which hinders the development of a conceptually well-thought-out approach. A study of 50 GFL teachers from the neighbouring South Tyrolean province of Trento came to a similar conclusion regarding the preference for print dictionary over digital ones in language lessons, mirroring the situation in South Tyrol. For instance, some teachers prohibited the use of digital tools entirely in their own lessons, lacked sufficient familiar with online resources and had no expe-

rience in dictionary didactics (cf. Nied Curcio 2022: 140–141, 145). A particularly high level of reluctance was observed in the use of translation programmes, whereby the aspect of "social desirability" in response behaviour must also be considered (cf. ibd: 142, 148). In this context, it is interesting to compare this with a survey on the use of dictionaries in language teaching in Switzerland, according to which it can generally be assumed that teachers are familiar with and use digital lexical tools (cf. Udry/Berthele 2023: 149). While neither of these cases constitute representative studies in their respective educational contexts, it is noteworthy that the two studies from the Italian setting reveal a somewhat more traditional approach to the use of digital tools, – contrasting with the Swiss educational world. This, in turn, raises the question of whether approach might indicate a more conservative stance towards language resources in Italy compared to similar contexts. However, some of the findings can simply be attributed to the lack of equipment in schools or the ban on mobile phone use during lessons (cf. Nied Curcio 2022: 146).

Another noteworthy discovery is the prevalent use of bilingual dictionaries in the L2/L3 context within the South Tyrolean educational sphere. For a long time, bilingual dictionaries were largely banned in foreign language teaching, coinciding with the transition from the grammar-translation method to the direct, audiolingual and audiovisual approach. The aim was to discourage didactics overly reliant on grammar and translation. The dictionary was also considered to be less conducive to communicative foreign language teaching. This, however, conflicted with reality, which showed that foreign language learners not only consistently used dictionaries, but also preferred bilingual over monolingual ones (cf. Nied Curcio 2015: 293–294).

The publication of the Common Framework of Reference for Languages (CEFR) in the 1990s revitalised the role of dictionaries in foreign language instruction, associating them with aspects like learner autonomy and language awareness (cf. Nied Curcio 2015: 293). In the framework guidelines for L2 and L3/English, the South Tyrolean educational landscape is clearly aligned with the CEFR and the proficiency levels that are to be achieved at various educational stages. The release of the CEFR companion volume (Council of Europe 2018), featuring scales on mediation, explicitly mentioning the use of dictionaries, and emphasising plurilingual and pluricultural competence (for the new scales, see e.g., Abel 2020, Studer 2020), signals a trend that increasingly views languages within individuals not as separately processed mental aspects but as interconnected units. Individuals should acquire the ability to draw on their entire language repertoires when mastering communicative tasks in a language or language variety to be learnt (Council of Europe 2018: 123–124). Against this background, to the use of bilingual or multilingual lexical resources should no longer be perceived as a barrier to learning. In fact, language learners do not just rely on bilingual and multilingual resources when solving language-related tasks; they also use several different resources and languages, as demonstrated by a study on dictionary usage during an L2 learner correction task by Müller-Spitzer et al. (2018: 298–301, 310–311). The authors

suggest (2018: 311) that these strategies, already used by learners, could be used as a starting point for conscious engagement with and development of dictionary skills in the classroom.

The questionnaire survey on dictionary skills with students of English and/or German as a foreign language in Hungary (cf. Márkus/Fajt/Dringó-Horváth 2023) shows that these students, with an average age of 34, predominantly use online dictionaries. A questionnaire study with GFL students aged between 17 and 21 at the universities of Milan and Florence arrived at the same conclusion (cf. Flinz/Ballestracci 2022). However, print dictionaries are still frequently used, often surpassing translation programmes like Google Translate according to self-reports. Nevertheless, search engines such as Google rank second in terms of frequency of use. According to the authors (cf. Márkus/Fajt/Dringó-Horváth 2023: 180), this is hardly surprising. Other studies also indicate that users resort to search engines when they cannot find terms in online dictionaries. For example, in a user study with foreign language learners at various universities, Müller-Spitzer et al. (2018: 297–298) found that they used lexical and other online language resources to solve specific linguistic tasks, occasionally turning to search engines. They used search engines both as dictionaries and to locate language resources.

The South Tyrolean study also revealed that the preference for using printed dictionaries not only varies according to age but also to school level, with primary school level showing a higher preference. One possible explanation for this could be the absence of products specifically tailored for children among the available online lexical resources. Additionally, it is worth noting that printed dictionaries for children, such as the *Grundschulwörterbuch (primary school dictionary)* published by Duden (cf. Holzwarth-Raether/Neidthardt/Schneider-Zuschlag 2022), primarily focus attention on basic skills for using a traditional dictionary. These include aspects like lemma order, spelling, word types and word families, while less emphasis is placed on solving linguistic problems, such as understanding the meaning of a word. However, this media-specific emphasis overlooks the importance of gradually introducing students to the use of online lexical resources.

An overview of the relevant research literature (cf. Márkus/Fajt/Dringó-Horváth 2023: 180) indicates that online dictionaries – as opposed to, for instance, print dictionaries or downloadable offline dictionaries – are now the most widely used type of dictionary. This is particularly true for the younger generation, as evidenced by a Europe-wide survey, although the differences compared to the older generation are smaller than one might expect, except in the case of smartphone usage (cf. Kosem et al. 2019: 109–110). This underscores the importance of introducing both students and teachers to competent and media-specific use of various (lexical) online resources. Nied Curcio (2022: 154) also emphasises the need for teachers to enhance their digital literacy skills.

Despite the declining use of print dictionaries among younger generations, their relevance in schools has not yet faded. One reason for this is their continued exclu-

sive allowance as aids in many language-related examinations, such as the Matura[14] in Italy. In the Swiss study on the use of lexical tools (cf. Udry/Berthele 2023: 157), teachers highlight the discrepancy between students' digital habits and the exclusive reliance on printed dictionaries in examinations. However, the future role of print dictionaries in (foreign) language teaching remains uncertain (cf. Nied Curcio 2022: 151). With the rapidly advancing development and optimisation of digital aids like translation programmes, there is ongoing discussion about which action-oriented learning objectives in foreign language education could be delegated entirely to these tools in the future. This raises the provocative question of whether foreign language teaching is still warranted, particularly in light of pupils' sometimes limited proficiency in other national languages compared to English, for which tools could potentially compensate (cf. Berthele/Udry 2023: 454–456).

The data from South Tyrol also indicates that teachers often lack awareness of digital lexical tools not provided by publishing houses. It is particularly noteworthy that unfamiliarity with the programmes was cited as the main reason for their non-use, rather than concerns about their classification as lexical resources or their reliability and topicality, as seen in previous literature (cf. e.g., Kosem et al. 2019; Müller-Spitzer/Koplenig 2014). No clear trends can be identified in the reasons for using specific tools in their own lessons. In general, scope, free access, speed and reliability seem to outweigh the topicality of the content.

The inclusion of translation programmes in studies on dictionary use may seem surprising at first glance, but they are sometimes used instead of, or in addition to, dictionaries (cf. Udry/Berthele 2023; Nied Curcio 2022; Flinz/Ballestracci 2022; Müller-Spitzer et al. 2018). The study on the use of translation programmes and online dictionaries in foreign language lessons by learners and teachers in Switzerland (cf. Udry/Berthele 2023: 149f.) reveals a different scenario to the survey conducted in South Tyrol. Unlike the latter, the majority of respondents in the Swiss study are familiar with internet tools: learners predominantly use translation programmes like Deepl and Google Translate, while teachers integrate LEO into their lessons, occasionally employing translation tools, especially at advanced school levels – a trend consistent with the findings from South Tyrol. Teachers' opinions differ on the extent to which the tools should form an integral part of language teaching. They are also more sceptical about the support provided by translation programmes for foreign language learning compared to learners. Teachers express concerns about the lack of personal contribution when using the tools. However, there is widespread consensus that these tools are and will continue to be part of both daily life and educational settings (cf. Udry/Berthele 2023: 153–154, 157–158).

---

14 School-leaving examination.

6 Concluding remarks and outlook

The framework guidelines in South Tyrol heavily emphasises the use of both printed and digital lexical resources across all school levels for language subjects L1, L2 and L3. While these guidelines are largely reflected in school practices, there are inconsistencies, with approximately 20% of teachers not working with dictionary resources as recommended. Additionally, there is sometimes a discrepancy between normative expectations for the use of digital media and their implementation. It is evident from the data produced by other studies that digital media, being an integral part of everyday life, especially for the younger generation, must be more strongly integrated into teacher training and ongoing education.

Although the use of dictionary resources of all kinds in educational contexts or a study on this very topic may initially seem peripheral, it addresses central aspects of language didactics. This includes fostering language awareness, promoting meta-linguistic skills, introducing strategies for recognising and solving language-related problems and doubts, and media literacy. These competencies are called for in the *Villa Vigoni Theses* (cf. Villa Vigoni Theses 2018), especially considering the inclusion of digital resources and the evolving linguistic practices and challenges. Eventually, these changes will also have an impact on language teaching, such as altering writing processes involving human-machines interactions and prioritising the revision of automatically generated or translated content (cf. Steinhoff 2023: 11–13).

Schools and educators face the challenge of responding to the innovative demands of students, who are often more adept with online applications than their teachers, while navigating the rapidly changing digital landscape. Achieving harmony between normative guidelines and practical implementation requires careful consideration. In-depth scientific research on the role of digital applications in education, as along with the design and testing of pedagogical concepts and usage scenarios, can provide valuable empirical insights to support this process.

7 Bibliography

7.1 Academic literature

Abel, Andrea (2020): Brücken bauen: Skalen zur Mediation im Begleitband zum GeR. In: *Deutsch als Fremdsprache* 3, 131–142.

Abel, Andrea (2022): Wörterbücher der Zukunft in Bildungskontexten der Gegenwart: eine Fallstudie aus dem Südtiroler Schulwesen. In: Klosa-Kückelhaus, Annette, et al. (eds.): *Dictionaries and Society. Proceedings of the XX EURALEX International Congress*. Mannheim, IDS-Verlag: 449–459.

Abel, Andrea (2024): Von Duden bis Deepl: zur Verwendung lexikografischer Ressourcen im Südtiroler Sprachunterricht (L1, L2, L3) im Spannungsfeld normativer Vorgaben und schulischer Praxis. In: *Linguistik Online* 126:2, 17–36.

Abel, Andrea/Meyer, Christian M. (2016): " Nutzerbeteiligung". In: Klosa, Annette/Müller-Spitzer, Carolin (eds.): *Internetlexikografie. Ein Kompendium*. Berlin/Boston, De Gruyter, 249–290.

ASTAT: astat.provinz.bz.it/ [07.04.2024]

Berthele, Raphael/Udry, Isabelle (2023): Welche fremdsprachlichen Lernziele der Schulen können mit digitalen Tools aber ohne Lernen erreicht werden? Simply playing the ostrich will not help in the long run. In: *Zeitschrift für Interkulturellen Fremdsprachenunterricht* 28: 443–461.

Council of Europe (2018): *Common European Framework of Reference for Langauges Languages: Learning, Teaching, Assessment. Companion Volume with New Descriptors*. Strasbourg: Council of Europe Publishing.

Das neue Autonomiestatut (2019/1972): *Geschichte und Kompetenzen; das Sonderstatut für die Region Trentino-Südtirol; das Staatsgesetz Nr. 118 vom 11. März 1972* [https://assets-eu-01.kc-usercontent. com/61233281-10ab-0155-b35b-4a79363b5ead/50f17083-059e-4b60-ae45-8a89884aba3a/statut_ dt_2019.pdf; last access: 07.04.2024].

Egido Vicente, María (2022): Dictionaries in German and Spanish Primary Education Curricula: A Comparative Study. In: *International Journal of Lexicography* 35: 176–203.

Engelberg, Stefan/Lemnitzer, Lothar (2009): *Lexikographie und Wörterbuchbenutzung*. Tübingen: Stauffenburg.

Flinz, Carolina/Ballestracci, Sabrina (2022): Das LBC-Wörterbuch: Eine erste Benutzerstudie. In: Klosa-Kückelhaus, Annette, et al. (eds.): *Dictionary and Society*. Mannheim, IDS Verlag, 460−470.

Handreichungen DE: *Handreichungen zu den Rahmenrichtlinien* [blikk.it/bildung/unterricht/handreichungen-rahmenrichtlinien; last access: 07.04.2024].

Holzwarth-Raether, Ulrike/Neidthardt, Angelika/Schneider-Zuschlag, Barbara (2022): *Das Grundschulwörterbuch*. 9th edn. Berlin: Dudenverlag.

Kosem, Iztok et al. (2019): The Image of the Monolingual Dictionary Across Europe. Results of the European Survey of Dictionary use and Culture. In: *International Journal of Lexicography* 32, 92–114.

Márkus, Katalin P./Fajt, Balázs/Dringó-Horváth, Ida (2023): Dictionary Skills in Teaching English and German as a Foreign Language in Hungary: A Questionnaire Study. In: *International Journal of Lexicography* 36, 173–194.

Mayring, Philipp (2016): *Einführung in die qualitative Sozialforschung*. 6th edn. Weinheim/Basel: Beltz.

Müller-Spitzer, Carolin/Domínguez, Maria/Nied Curcio, Martina/Dias, Idalete/Wolfer, Sascha (2018): Correct Hypotheses and Careful Reading Are Essential: Results of an Observational Study on Learners Using Online Language Resources. In: *Lexikos* 28, 287–315.

Müller-Spitzer, Carolin/Koplenig, Alexander (2014): Online dictionaries: expectations and demands. In: Müller-Spitzer, Carolin (ed.): *Using Online Dictionaries*. Berlin/Boston, De Gruyter, 143–188.

Nied Curcio, Martina (2015): Spielen Wörterbücher bei der Sprachmittlung noch eine Rolle. In: Nied Curcio, Martina/Katelhön, P./Bašić, I. (eds.): *Sprachmittlung – Mediation – Mediazione linguistica: ein deutsch-italienischer Dialog*. Berlin: Frank & Timme, 291–317.

Nied Curcio, Martina (2022): *L'uso del dizionario nell'insegnamento delle lingue straniere*. Roma: Roma Tre-Press.

Nkomo, Dion (2015): Developing a dictionary culture through integrated dictionary pedagogy in the outer texts of South African school dictionaries: the case of Oxford Bilingual School Dictionary: IsiXhosa and English. In: *Lexicography ASIALEX* 2, 71–99.

Rahmenrichtlinien DE: *Rahmenrichtlinien der Schulen mit deutscher Unterrichtssprache* [provinz.bz.it/bildung-sprache/deutschsprachige-schule/angebote/publikationen-deutsches-schulamt.asp; last access: 07.04.2024].

Rahmenrichtlinien IT: *Rahmenrichtlinien der Schulen mit italienischer Unterrichtssprache* [provinz.bz.it/ formazione-lingue/scuola-italiana/sistema-scolastico/indicazioni-provinciali.asp; last access: 07.04.2024].

Steinhoff, Torsten (2023): Der Computer schreibt (mit). Digitales Schreiben mit Word, WhatsApp, ChatGPT & Co. als Koaktivität von Mensch und Maschine. In: *MiDU – Medien im Deutschunterricht* 5:1, 1–16.

Studer, Thomas (2020): Jetzt skaliert! Plurikulturelle und mehrsprachige Kompetenzen im erweiterten Referenzrahmen. In: *Deutsch Als Fremdsprache* 1, 5–26.

Töpel, Antje (2012): Wörterbücher im muttersprachlichen Deutschunterricht der Sekundarstufe II – zur Nutzbarkeit der Bedeutungserläuterungen von „elexiko". In: *Deutsche Sprache* 42, 291–308.

Udry, Isabelle/Berthele, Raphael (2023): Digitale Übersetzungsprogramme und Online-Wörterbücher im Fremdsprachenunterricht: Erkenntnisse aus einer Umfrage bei Lehrpersonen und Lernenden der obligatorischen, post-obligatorischen und tertiären Bildung. In: *Linguistik Online* 120, 145–167.

Villa-Vigoni-Thesis (2018): specialists from the fields of dictionary research, practical lexicography, German as a foreign language, Italian studies, translation science and empirical linguistics: *15 Villa-Vigoni-Thesen zur Lexikografie/15 Tesi di Villa Vigoni sulla lessicografia/15 Villa Vigoni Theses on Lexicogra*phy. Villa Vigoni [https://hdl.handle.net/10863/9156; last access: 07.04.2024].

Wiegand, Herbert Ernst/Gouws, Rufus H./Kammerer, Matthias/Mann, Michael/Wolski, Werner (2020) (eds.): *Wörterbuch zur Lexikographie und Wörterbuchforschung. Dictionary of Lexicography and Dictionary Research*, vol. 3: *I–U, Äquivalent-register/Equivalent indexes*. Berlin/Boston: De Gruyter.

7.2 Online dictionaries [last accessed: 07.04.2024]

Bab.la = www.bab.la.
DeepL = www.deepl.com.
Dict.cc = www.dict.cc.
LEO = www.dict.leo.org.
Linguee = www.linguee.de.
Reverso Context = www.context.reverso.net.
Wiktionary: = de.wiktionary.org.

Martina Nied Curcio

The use of lexicographic online resources by foreign language teachers and the effectiveness of teacher training courses

Abstract: Foreign language teachers have received little or no attention in *Research into dictionary use*. Their knowledge of dictionaries, their dictionary use skills and how and which kind of dictionaries they use in classroom have been rarely studied, somewhat surprisingly if one considers that language teachers are the ones who can actively promote an adequate use of dictionaries among learners. In 2017 the author held a workshop on dictionary use for 50 Italian teachers of German as a foreign language and asked them specific questions on dictionary use, issuing them with questionnaires both before and after the workshop. The questionnaire before the workshop dealt with the use of printed and online dictionaries in class and at home (by students and themselves), the assessment of students, the own dictionary use behavior and self-assessment of their own competence. The workshop compared printed and online dictionaries, experimented with different online resources, compared results of translations with the help of several dictionaries, parallel corpora and translation tools; it encouraged reflection on one's own dictionary use skills with the aim of enhancing dictionary use awareness. In the questionnaire after the workshop teachers were asked to reflect critically on the usefulness of didactics for dictionary use, to express their opinion on whether they believed they were now more familiar with online dictionaries and dictionary applications, which among the resources available was most useful for them and whether they would use online dictionaries in class from now on. This contribution shows the results of these questions and illustrates how the workshop has changed teachers' attitudes towards the use of online dictionaries in foreign language teaching, and how their own dictionary use competence has improved.

Keywords: dictionary use, foreign language teachers, dictionary teaching, lexicographic online resources

1 The adequate use of lexicographic online resources – a challenge for foreign language teaching

In foreign language teaching in Italy, as in many other European countries, printed dictionaries have almost disappeared from the daily lives of foreign language learn-

Martina Nied Curcio, Università degli Studi Roma Tre, Dipartimento di Lingue Letterature e Culture Straniere, Via Ostiense, 236, 00146 Roma, Italia, e-mail: martina.nied@uniroma3.it

ers. The online offer of lexical and lexicographic resources is ever increasing. The dictionary as a lexicographic reference work, in its printed form, used to be a very specific physical object and still is. With increasing digitisation, not only has its structure changed, but hybrid forms have sprung up, such as dictionary + grammar table, dictionary + parallel text corpora or even dictionary + parallel text + automatic translator, resources that were physically separate before the digital age (Müller-Spitzer et al. 2018: 298). Due to the abundance of tools now available for the European languages, it is easy to lose the overview. Since the authors, the purpose of the dictionary and the target users are often not transparent in online resources, it is also difficult for users to orient themselves and to assess the quality.

This profound change in lexicographic practice is very often not perceived by learners of foreign languages. The data from an analysis of several studies show how much lexicographic resources have changed over the past decades, and how much – over the same period – user behaviour has remained essentially the same (cf. Nied Curcio 2014: 277; Nied Curcio 2022: 84, 85). Users prefer bilingual online dictionaries, they use the online resource mainly for decoding, they do not know many resources related to the language they study, and which could meet their needs. They are not able to find their way within the entry, they still often look for single words and examples also in online resources which offer the possibility to look up collocations, phrasemes or even whole sentences. In a bilingual dictionary, foreign language learners often resort to the first equivalent and do not read the information in the entry, they do not scroll down, they only read the part that can be seen directly on the monitor, which is why they often do not see the solutions offered, just to give a few examples (Müller-Spitzer et al. 2018: 297, 307–308). If we consider that there is a multitude of lexicographic resources, many of which show good quality and offer a big variety of search possibilities, the results described with regard to the user's ability to search for information are not only disappointing but alarming. In addition, the act of consulting the online dictionary increasingly resembles the use of a search engine (id.: 301). The time aspect – a key factor for adequate use – is often not given enough attention (id.: 304).

Unfortunately, foreign language teaching has not really reacted to these new developments, even though the CEFR explicitly refers to the importance of this competence (Council of Europe 2001; 2020), and despite the fact that many educational guidelines of various European countries include the use of dictionaries explicitly in foreign language teaching, even if they don't define it in detail (Nied Curcio 2015: 302–305; cf. Abel in this publication). In foreign language teaching, learning to use the dictionary or online resources properly was not and still is not a topic of teaching and discussion. Where foreign language teachers allow the use of dictionaries, either in the classroom or during examinations, they still give preference to printed dictionaries and generally to monolingual dictionaries (often only for an advanced language level). The use of bilingual dictionaries is often not permitted. Online dictionaries and applications are almost completely excluded from the classroom. However, in the context of autonomous and lifelong learning, foreign language learners have to develop metacognitive

strategies and media literacy by comparing different types of lexicographic resources that can be used for foreign language learning. Lexicographic resources should therefore not be banned from the classroom. It is important not to leave students alone. In any case, foreign language learners use online dictionaries, translation tools, search engines and they recently have started using Large Language Models (LLMs), whether they are allowed in the classroom or not. It would be much better, therefore, to integrate these search tools into lessons, reflect on their use and enable students to perform informed and effective searches. But what about the digital literacy of the teachers?

2 The lexicographic competence of foreign language teachers

As has been mentioned, dictionary teaching currently plays little or no role in foreign language teaching. The reason for this is still not entirely clear. Based on my experiences in training courses for foreign language teachers, it seems that teachers have only little knowledge and skills in relation to (lexicographic) online resources and applications for mobile devices. Teachers, therefore, are perhaps themselves not in the position to be helpful to the learner, the digital native. Consequently, dictionary teaching cannot be implemented directly in foreign language teaching. In addition, many teachers seem to feel inferior to their students with regard to digital tools (which may explain why some of them still insist on using printed dictionaries in the classroom) and do not know how to assess their students' competences (which is why they do not know where to start). If we consider that the choice of a certain type of dictionary often depends on the teacher and concrete exercises in the classroom, it is even more important to focus on the teachers themselves and their training in the first place.

If we review the results of empirical studies on the use of dictionaries (cf. Nied Curcio 2022) and if we bear in mind that many foreign language learners today almost exclusively use online dictionaries and applications, we have to admit that we face a serious problem, especially when teachers assume that the students' regular use of online resources implies that students have developed adequate usage skills and can also apply them to printed dictionaries (i.e. during an exam), without realising that both of these assumptions are unfounded. It seems that teachers ignore the fact that foreign language learners actually are not informed and experienced users of lexicographic online resources. There is, in my opinion, a huge discrepancy between what students actually know how to do and what teachers believe they are able to do. Consequently, there is a gap between what teachers expect from students and what students expect from teachers. What efforts need to be made, and what are the challenges in foreign language teaching to bridge this gap? What could be the concrete actions needed to bring teachers and students closer together? Where should we start? From teacher training?

3 Workshop and experiment with Italian teachers of German as a foreign language

In the *research on dictionary use*, foreign language teachers – as users – have received little or no attention (Nied Curcio 2022). There is a lack of detailed information on:
– What kind of dictionaries do teachers know?
– Which ones do they use (printed and/or online, applications, monolingual and/or bilingual dictionaries)
– For what purpose do they use them? In what context of use?
– Are they aware of their level of competence in dictionary use?
– Do they allow their students to use dictionaries in the classroom?
– If yes, which ones? If no, why not?
– Do they correctly assess students' competence in using the dictionary? Do teachers know where and what students are looking for?

In order to find an answer to these questions, in November 2017 I taught two rounds of an 8-hour dictionary training course on the use of the lexicographic online resources for 50 Italian (Italian = L1) teachers of German as a foreign language from the province of Trento. This was also an opportunity to collect some data on:
– the situation of the use of online resources and applications in the school teaching of German,
– the competence of dictionary use (in particular of online resources and applications) by teachers and their self-assessment,
– the effect of dictionary teaching.

With regard to the effect of dictionary teaching, many lexicographers, linguists and teachers not only support the idea that specific teaching of dictionary use ~~not only~~ can improve students' dictionary usage skills, but are also convinced that training has a positive effect on foreign language learning. (cf. Nied Curcio 2022: 87–89).
Prior to the workshop, the following hypotheses were formulated:
– L2/L3 German teachers still use monolingual or bilingual printed dictionaries in their classes,
– not all of them allow the use of online dictionaries or apps,
– they only know a few online dictionaries for learning German (L2),
– teachers assume that students' regular use of online resources and smartphones automatically implies adequate use of lexical resources,
– they avoid the use of online dictionaries in their teaching because they feel uncertain and not really competent,
– they do not know how to teach dictionary use.

The structure of the meeting with the teachers was as follows:
1. Introduction (30')
2. Questionnaire 1 + discussion (30')
3. Presentation of some studies in the field of research into dictionary use and their most important results for foreign language teaching (30')
4. Workshop (exercises for dictionary use from a contrastive perspective, in pairs or small groups, using an inductive method (self-exploring) with moments of discussion and reflection in class) (5.5h)
5. Presentation of online dictionaries and application for teaching German L2 (30')
6. Questionnaire 2 + concluding discussion (30')

In order to investigate both the use of the dictionary and online resources in general, and also to verify the teacher' competence in their use, a multi-methodological approach was chosen. A combination of several questionnaires was organised, the answers to which were analysed on both a quantitative and qualitative basis, both general and in relation to specific tasks in the field of dictionary teaching. As in so many cases where the questionnaire was applied as a method, the data cannot be trusted 100% because the answers are subjective and based on the memory of the participants. Furthermore, some questions, such as "do you use dictionaries?" or "do you also use translation programmes?" may elicit predictable answers due to inhibitions or fears of 'sanctions' from society, in our case from colleagues or the teacher (social desirability). The teacher may find it difficult to admit that he or she does not use a dictionary or uses translation programmes instead of dictionaries (cf. Hatherall 1984: 184).

The questionnaire before the workshop concerned the use of dictionaries, both printed and online, in the classroom and at home; the students' perceived impression; the teachers' behaviour in using a dictionary; and finally, self-assessment of one's own competence. The following questions were asked:
1. Do you allow the use of dictionaries in your classroom? If yes: which one(s) and for which activities? If not: why not?
2. Do you allow students to use dictionaries at home (i.e. for homework)?
3. Do you think your students are good at using online dictionaries and dictionary applications?
4. Do you use dictionaries (in general)? If yes, which ones? In which situation? If not: why not?
5. Do you think you are good at using online dictionaries and lexicographic apps?
6. Which online dictionaries and apps do you know for German as a foreign language (L2)?
7. Do you use translation programmes?

In the questionnaire at the end of the workshop, teachers were asked to reflect on the effectiveness of the workshop and the usefulness of dictionary teaching:

1. Do you think you are now, after the workshop, more familiar with online dictionaries and lexicographic applications?
2. What was particularly useful to you?
3. Would you like to learn more about dictionaries? If yes: what?
4. If you usually do not allow online dictionaries in class, have you changed your mind now after the workshop? Would you allow them in class from now on?
5. What activities would you like to do with students in the classroom? Do you have any ideas?
6. Would you participate in another workshop on online dictionaries?

The workshop itself consisted of various tasks with very concrete usage situations and lasted 5.5 hours. (cf. 6 Appendix). The participants – the teachers – during the workshop were not only learners, but also active users[1] who have carried out specific dictionary usage tasks. The specific tasks were:

1. Comparison of information in bilingual Italian-German dictionaries (printed) and the LEO online dictionary.
    (a) Comparison of two excerpts of the entry *cambiare* (to change) in the Italian-German dictionaries of GK and VERDIANI.
    (b) Comparison of the information found in GK and VERDIANI with the LEO online dictionary.
    (c) Concrete task of translating sentences containing the polysemic verb *cambiare* with LEO and then with GK and VERDIANI.
    (d) Comparison of the information found.

2. The function of translation programmes.
    (a) Translation of various words, collocations and idioms, such as *Absacker* (last drink before going to sleep), *perdere il treno* (miss the train) and *Er friert wie ein Schneider* (he is very cold, literally *feel cold like a tailor), on *Google translate*.
    (b) Comparison and discussion of the results and attempt to inductively find reasons for the translations presented by *Google translate*.

---

1 An *active user* is "every person ready to perform communicative consultation procedures" (Wiegand et al. 2010: 678).

(c) Search for the equivalent of *Absacker* (night cup, last drink before going to bed)[2] in Italian and *perdere il treno* (missing the train)[3] in German, using English as a relay language[4] and comparison of the results.

3. Search for words with their context
   (a) Entering collocations and idioms in DUDEN, DWDS, LINGUEE and REVERSO CONTEXT, followed by a comparison of the results.
   (b) Translation of *infatti* (indeed) and *preparare un esame* in German and *keine Frag*e[5] in Italian, and other typical interference errors and subsequent comparison of the results found using the word profiles of DUDEN and DWDS.
   (c) Search for the word profiles of *Examen* and *präparieren* in the online monolingual dictionary DWDS.
4. Searching for phraseological units on websites

All phases were accompanied by reflection and discussion in class. For this reason, the teacher was both a user *in actu* but also a user *post-actum*. As can be seen, the workshop focused on the comparison of various resources – printed and online dictionaries – and teachers experimented with new online resources. They compared also results of translation tasks with translation tools, different kind of dictionaries and parallel corpora. In this way, the participants improved their knowledge of various resources, but also reflected on their own skills in using online resources.

Questionnaire 1 confirmed that most teachers allow the use of a dictionary during classroom lessons, especially a printed dictionary. 46 participants (92%) give their students permission to use a printed bilingual dictionary, and 5 (10%) allow the use of a monolingual dictionary, also in printed form. 18 teachers (36%) give their students permission to use online dictionaries on tablets and smartphones and 7 (14%) also allow the use of apps in the classroom (cf. Figure 1).

---

2 If one translates directly from German to Italian, automatic translators as *Google translate* show the result *berretto da notte*, which means literally *nightcap* (translate.google.com; 20.03.2024).
3 Italian students often transfer from their L1 to German. For *perdere il treno*, in German it is not possible to use the verb *verlieren*; in the context of *train* the adequate verb is *verpassen*.
4 *Relay language* is defined as "a language, usually an internationally dominant one, which acts as a medium to translate other usually little-spoken languages" (COLLINS).
5 Italian students often translate *infatti* with *in der Tat*, which has a different syntactic structure as *infatti*. *Preparare-präparieren* and *esame-Examen* are false friends and when Italian students translate the sentence *Devo ancora preparare un esame* in German **Ich muss ein Examen präparieren*, they are not aware that the meaning would be **I have to embalm/mummify my final exam/degree*. If *Keine Frage* is used in an answer to a question with the meaning of *no doubt*, then this collocation cannot be translated in Italian with *nessuna domanda* with the meaning of *I have no question*.
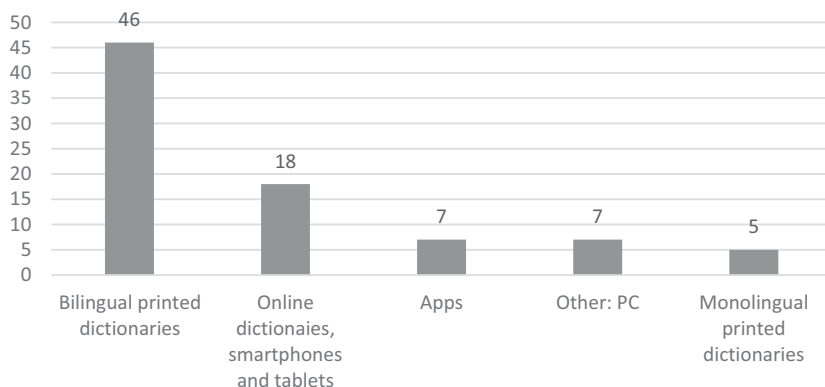
Figure 1: Types of dictionaries allowed in classroom.

These data show that the use of electronic lexicographic resources in the classroom is infrequent. The activities for which dictionaries are used are the classic ones, i.e. reading (reception) and writing (production) in the foreign language (here: German). 28 teachers (56%) mention both activities. 12 teachers (24%) explicitly write that the dictionary is used in the classroom for group work. Only 2 teachers allow its use in the context of translation and exam preparation. Other contexts of use and reasons mentioned (1 teacher in each case) are CLIL (Content and language integrated learning), the description of a picture, vocabulary exercises, oral production, grammar exercises, exercises and tasks (not specified), various activities (not further specified) and for control (not further specified). Only one teacher (!) mentioned adopting a didactic approach explicitly to promote the use of dictionaries, and offering students specific exercises to gain experience in using the resource, i.e. looking up the article or plural or the meaning of a word.

As we have seen above, only 4 teachers do not allow the use of the dictionary during the lesson and they justify their decision on the following grounds:
– the students must use the words they have already learnt,
– the language level is too low,
– students would find it difficult to use them, and
– students are too distracted.

In other cases, the reason is simply technical, i.e. the school does not provide a dictionary, or there are not enough tablets and computers for students, or the use of smartphones during class is prohibited. In contrast, almost all teachers (98%) allow the use of dictionaries for homework. More than half (54%) of the teachers believe that students are able to use online dictionaries and related apps; 44% are of the opposite opinion, and one teacher cannot answer.

Concerning the question whether teachers themselves use dictionaries, almost all (48/50) confirm their regular use. Only one does not use dictionaries, and one uses them only rarely.

Which dictionaries do the teachers use? They are mainly printed monolingual dictionaries (31%) and bilingual dictionaries (31%), which means that 62% of the teachers have a printed monolingual dictionary and a bilingual dictionary at home. These are the same teachers who only use the printed dictionary in the classroom.

41% of teachers use online dictionaries on their smartphones, and 16% use applications on smartphones and tablets. Two teachers indicate an electronic version (CD-ROM) and only one teacher explicitly mentions the etymological dictionary (not further specified if printed or online). Teachers indicate as situations of usage, first of all, the preparation of their lesson (30%); then while reading of a German article or book (14%); followed by a translation task (10%) and text production (8%); much less while watching of a movie (4%) or during a trip (2%). The user's objectives are as shown in Table 1:[6]

Table 1: Reasons for the dictionary use.

Preparing the lessons	30%
Check a doubt about the meaning of a word	28%
Look up the meaning of a word	20%
Check the spelling	18%
Search for the gender	14%
Search for synonyms	8%
Check the context of use	8%
Search for the plural form	2%
Search for expressions and idioms	2%
Search for examples	2%
Search for the etymology of a word	2%

Very interesting are the data on self-assessment. 68% of the participants admitted to being unfamiliar with the use of online dictionaries and lexicographic applications, 26% thought they were familiar with them. 6% could not answer.

Concerning the teaching of German as a foreign language, teachers are most familiar with PONS (58%). In addition, 28% of the teachers know DUDEN and again 22% LEO. Much less known are LANGENSCHEIDT (16%), the CORRIERE DELLA SERA dictionary (8%) and LINGOSTUDY (6%). DICT.CC, WORDREFERENCE, REVERSO, REVERSO CONTEXT and SANSONI are only mentioned by one person each (2%). Tools and platforms not strictly lexicographic were also listed such as QUIZLET (4%), BABBEL (4%). Someone even mentioned *Google translate* as a dictionary (cf. Figure 2).

---

6 The question about the usage situation was an open question. (cf. questionnaire in the appendix). The answers are categorized and summarized here.
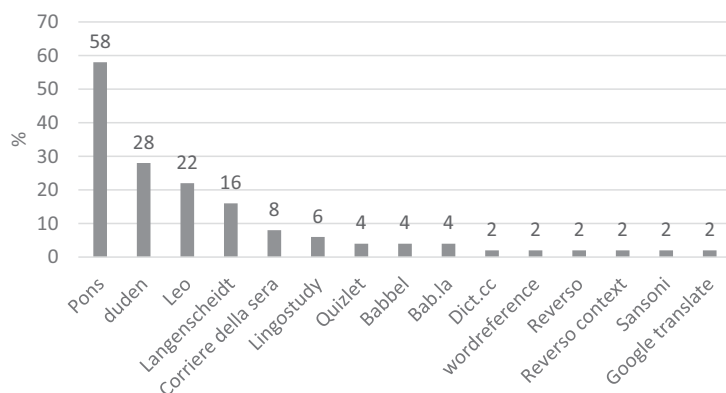
Figure 2: Lexicographic online resources used by the teachers.

A noteworthy finding is the fact that the teachers who wrote that they did not consider themselves very good or competent in using online dictionaries mentioned more resources than those who considered themselves capable. This, in my opinion, shows that the 'sceptical' teachers have more experience in using online dictionaries. They are more aware of their shortcomings; they know that there are even more resources that they do not know about. Their self-assessment seems to be more realistic than that of teachers who declare themselves competent.

When asked whether they also use translation tools, only 4 teachers (8%) admitted to using them. Consequently, 92% of the teachers state that they do not use automatic translators. This figure may not be very reliable for several reasons: a) the participants' recollection does not reflect reality, b) the participants are not aware that they use it or c) the participants voluntarily do not admit to using translation programmes because – according to society – a good teacher should not use them.

Questionnaire 2 was administered after the dictionary workshop, by which stage the teachers were less uninformed users. Due to the short duration of the workshop, it would be unrealistic to expect that the teachers could become really informed and experienced users. Their awareness of their own skills and self-assessment certainly improved. This can also be deduced from the answers to questionnaire 2. All the teachers (100%) indicated that the course was very useful, that they enjoyed it very much and that they felt above all that they were now more familiar with online dictionaries and lexicographic applications. The aspect of learning by doing, of exploring and experiencing the various resources first-hand, and of comparing and evaluating them, was rated as very positive. 44% of the teachers appreciated the fact that they had discovered many new online dictionaries and applications, thus gaining a better overview of existing and usable resources for teaching. In response to the open question *What was most useful to you?* 30% of the participants stated that it was very positive for them to compare dictionaries, to become aware of the differences between one and the other, to evaluate the advantages and disadvantages of resources for a specific purpose or in

a specific situation of use. 40% of the participants appreciated both the advice and concrete examples for their own use of a dictionary and also the advice and concrete examples for using the dictionary in the classroom (also 40%). For 8% of the participants, it was good to know more about the structure of a dictionary and the microstructure of a lexicographic entry and to understand how translation tools work.

A course on dictionary use, or online resources in general, can evidently have a positive effect and can also influence and change the opinions and attitudes of the participants. Some teachers decided to buy the GK dictionary or to start using online dictionaries (which they had never done before) or to reflect on how to better incorporate the use of online dictionaries and applications in their teaching. When asked whether they would now – after the course – incorporate online dictionaries and apps into their German lessons, all 50 teachers, i.e. 100%, said yes. This means that even the most sceptical, and those who had indicated that they would not allow the use of the online dictionary in class, changed their minds. The reasons that pushed them in this direction are as shown in Table 2.

Table 2: Reasons why teachers would use lexicographic resources in classroom in the future.

1.	Dictionaries are important and useful tools for learning a foreign language, for improving language skills and also for avoiding errors.	44%
2.	Online dictionaries are the future. Knowing how to use them adequately is a key competence.	10%
3.	All students have smartphones and use online dictionaries, but they need support to evaluate and use them adequately.	10%
4.	Students are more motivated to work with online dictionaries than with printed dictionaries.	10%
5.	Students have to become aware of their own competence in using lexicographic resources.	8%
6.	Online dictionaries are more interesting for digital natives.	6%
7.	Students like to use computers, tablets and smartphones in the classroom.	6%
8.	Online resources are faster and more accessible than printed dictionaries.	6%
9.	With the use of online dictionaries, autonomous learning can be promoted.	6%
10.	Online resources such as LINGUEE or REVERSO CONTEXT show words in context and five authentic examples.	4%
11.	Students need to be introduced to online dictionaries with the aim to limit the use of *Google translate*.	4%
12.	Online dictionaries are useful tools for improving lessons.	4%
13.	It is essential that teachers improve their competences in using online resources.	4%
14.	Dictionaries put the focus on vocabulary learning.	2%

At the end of questionnaire 2, teachers were asked whether they would participate in another training course on the use of online dictionaries and applications, and with what aim in mind. 94% of the teachers would be willing to attend another course and would especially like to learn in a concrete way how to introduce and practice dictionary use in the classroom. As illustrated in Figure 3, they would like to learn which concrete tasks, activities and exercises could be practised in the classroom (38%), already at beginner levels. Two teachers (4%) would like to learn how dictionaries could be used in class in a funny way. Two other teachers (4%) wrote that they would like to learn how

to work with online dictionaries for vocabulary learning. Furthermore, there are also teachers who would like to understand how online dictionaries and apps work.
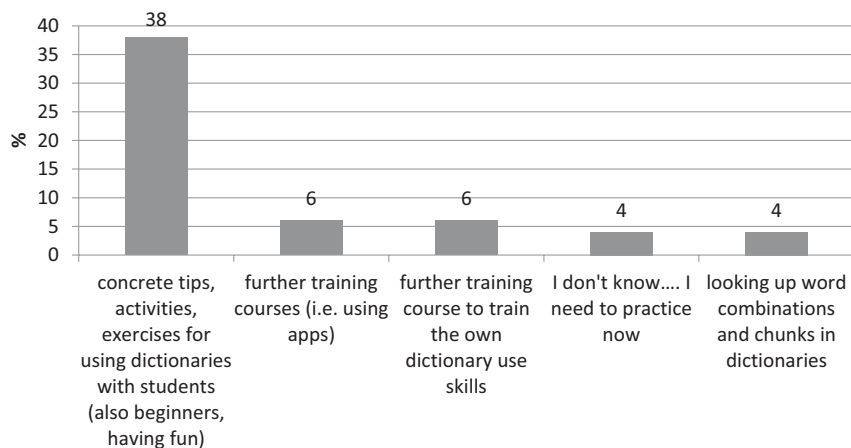
Figure 3: Teachers' need for further training.

4 Conclusions

We can summarise that the participants of the workshop (teachers of German L2):
– generally use a large variety of dictionaries (printed dictionaries, online dictionaries and apps) for themselves,
– often do not use online dictionaries or apps in the classroom, because there are no computers, tablets or the use of smartphones is prohibited in general,
– do not feel comfortable with their skills in using online dictionaries,
– do not know how to teach the use of dictionaries.

Many teachers (54%) doubt that their students are competent in the use of online dictionaries and apps while 68% are aware of their own lack of competence in using them. They would like to improve their skills, and would like to learn how to introduce online resources in their lessons in order to help their students use them better.

Of course, it must be taken into account that the data presented are from the pre-pandemic period. New studies with teachers are absolutely necessary. The challenge is to publish the results as quickly as possible, as the online resources themselves change and improve and new resources are available so that the validity of the results sometimes quickly become outdated. The results presented here invite us to undertake more extensive research, not limited exclusively to the use of lexicographic resources, but also the use of search engines, automatic translators and LLMs by foreign language teachers.

However, recent observations in training courses with teachers give the impression that not much has changed in terms of teacher competence with regard to the use of lexicographic online resources. With the challenges posed by a multilingual and digital society, we can no longer leave learners (and teachers!) on their own. Lexicographic online resources, but also translation tools and Large Language Models should no longer be banned from foreign language teaching. It is important to integrate these tools into lessons, to use them, to reflect on their use and to enable teachers and learners to become experienced and skilled users, especially in terms of lifelong learning and media literacy. There is a vital need for teaching how to use modern lexicographic resources, and foreign language courses could be an excellent place in which to do this. The question now facing is above all a didactic one, which means that teachers need to be trained in the use of lexicographic online resources and should be provided with didactic concepts, tips and concrete activities or exercises that they can adopt in their lessons. According to Zöfgen (2010: 109–110), dictionary teaching, which nowadays has to include the resources mentioned above, can be direct and indirect. In *direct dictionary teaching*, dictionaries and online resources are explicitly addressed as knowledge (and treated primarily at a cognitive level). In my opinion, foreign language teachers should come to have a broad and in-depth knowledge of dictionaries. In general, foreign language teachers should:
– know several monolingual and bilingual online dictionaries, automatic translators and LLMs and be able to critically evaluate them in terms of quality,
– know specific online resources that may be useful for their use in class,
– be able to recognise differences in quality between online resources,
– know the differences in macro-structural and micro-structural presentation compared to printed dictionaries, online dictionaries, apps and other hybrid resources.

Indirect dictionary teaching is mainly concerned with the use of dictionaries, online resources and applications in the classroom, possibly in authentic communication situations or scenarios involving concrete language use. Here too, it is important to use different resources, compare them and reflect on their use, advantages and disadvantages, within the various language activities (production, reception, interaction, mediation). The reflection and discussion in class, together with the students, can also be experimental and in a collaborative form between teacher and students. It is my belief that the time invested in dictionary teaching will have a positive effect not only on the use of dictionaries (and general search competence), but also on vocabulary acquisition and the general foreign language learning process and thus, ultimately, on language competence. Even if it seems that today's digital natives no longer take the time to do searches thoroughly, I think they would still like to learn more about the possibilities of searching on the Internet, what kind of online dictionaries are available, how different online dictionaries are designed, how they are structured, how to find their way around them, how to recognise reliable information, because their goal is to improve their language skills and make fewer mistakes – and as informed and experienced users of online resources, they will be able to reach their goal.

5 Appendix

5.1 Questionnaire 1 before the workshop

Fragebogen 1 zur Benutzung von Wörterbüchern im Unterricht

1. Dürfen **Ihre Schüler** in <u>Ihrem Deutschunterricht</u> Wörterbücher benutzen?
    Ja ( )   *Nein* ( )

1.1. Wenn *Ja*, für welche Aufgaben (z.B. beim Lesen, Schreiben, . . .) ?

    _____

    _____

1.2. Wenn *Nein*, warum nicht?

    _____

    _____

2. Wenn *Ja*: welche?
    – einsprachige Print-Wörterbücher   ( )
    – zweisprachige Print-Wörterbücher   ( )
    – Online-Wörterbücher auf dem Smartphone/ Tablet   ( )
    – Apps auf dem Smartphone/ Tablet   ( )
    – Andere:

    _____

3. Dürfen **Ihre Schüler** <u>zu Hause</u> Wörterbücher benutzen, um Hausaufgaben zu erledigen?
    Ja ( )   Nein ( )

4. Können **Ihre Schüler** – Ihrer Meinung nach – mit Online-Wörterbüchern und Wörterbücher-Apps umgehen?
    Ja ( )   *Nein* ( )

5. Nutzen **Sie selbst** Wörterbücher (generell)?
    Ja ( )   *Nein* ( )

5.1. Wenn *Ja*, welche?
    – einsprachige Print-Wörterbücher   ( )
    – zweisprachige Print-Wörterbücher   ( )
    – Online-Wörterbücher auf dem Smartphone/ Tablet   ( )
    – Apps auf dem Smartphone/ Tablet   ( )
    – Andere:

    _____

5.2. Wofür? In welchen Situationen?

_____

_____

Wenn *Nein*, warum nicht?

_____

_____

6. Glauben Sie, dass **Sie** sich selbst mit Online-Wörterbüchern und Wörterbuch-Apps <u>gut auskennen</u>?

    Ja ( )　　　　*Nein* ( )

7. Welche Online-Wörterbücher und WB-Apps <u>in Bezug auf das Deutschlernen</u> kennen **Sie**?

    _____

    _____

    Nutzen **Sie** auch Übersetzungsprogramme?

    Ja ( )　　　　*Nein* ( )

    Wenn ja, welche?

    _____

    _____

5.2 Teaching materials

5.2.1 AB 1

A. Was steht in einem Wörterbuch(artikel)?

Ein Vergleich von Print- und Online-Wörterbüchern

1. Schauen Sie sich folgende Auszüge des Wörterbuchartikels *cambiare* aus den Wörterbüchern von Giacoma/Kolb (GK) und Verdiani an.[7] Ordnen Sie folgende Begriffe zu. Arbeiten Sie mit der „Graphischen Gebrauchsübersicht" (GK, S. 6–9) oder der „Guida graphica alla consultazione (online)[8].

---

7 Giacoma, Luisa/ Kolb, Susanne: *Dizionario tedesco-italiano italiano-tedesco*. Bologna: Zanichelli Klett Pons, 2014. 3rd edn.

　Verdiani, Silvia: *Dizionario di apprendimento della lingua tedesca. Tedesco Italiano – Italiano Tedesco*. Torino: Loescher, 2010.

8 http://online.scuola.zanichelli.it/alt/materiali/tedesco/guidagrafica.html (13.10.2017).

◆**cambiàre** <cambio, cambi> **A** tr <avere>
1 (sostituire) ~ **qc** (**a qc**) {PILA ALL'OROLOGIO}
etw (von etw dat /+ gen) aus|wechseln: ~ **le**
federe ai cuscini die Kissen frisch bezie-
hen; **ho cambiato le piastrelle del bagno**,
ich habe die Fliesen im Bad ausgewechselt,
ich habe im Bad neue Fliesen gelegt; {CAME-
RA D'ARIA, FRENO, SPECCHIETTO RETROVISORE}
etw aus|wechseln **2** (indossarne un altro) ~
qc {ABITO, CRAVATTA, MAGLIETTA} etw wechseln
3 (mettere vestiti puliti) ~ **qu** {MAMMA NEONA-
TO} jdn trocken|legen; ~ **qc a qu** jdn etw an|
ziehen: ~ **la maglietta al bambino**, dem
Kind ein frisches Unterhemd anziehen
4 (salire su di un altro mezzo di trasporto) ~
(**qc**) {AUTOBUS, TRENO} (in etw acc) um|steigen
5 (averne uno nuovo) ~ **qu** {DENTISTA, FIDANZA-
TA, MACELLAIO, PARRUCCHIERE} jdn wechseln; ~
qc {INDIRIZZO, NUMERO DI TELEFONO, PROGRAM-
MA} etw ändern; {LAVORO, DIREZIONE} etw
wechseln: ~ **casa**, um|ziehen; fig {OPINIONE,
PARERE, COMPORTAMENTO} etw ändern; **ho**
cambiato idea, ich habe es mir anders über-
legt; **improvvisamente cambiò espressio-
ne**, plötzlich änderte sich sein/ihr Gesichts-
ausdruck **6** ~ **qc** (**in qc**) {DOLLARI IN EURO}
etw (in etw acc) wechseln, etw in etw (acc)
tauschen: **mi cambia 100 euro?**, können Sie
mir 100 Euro wechseln?; (uso assol) wech-
seln; **non ho il resto, devo** ~, ich kann nicht
herausgeben, ich muss wechseln **7** (barat-
tare) ~ **qc** (**con qc**) {UNA COLLANA CON UN ORO-
LOGIO} etw (gegen etw acc) (um|)tauschen
8 fig (trasformare) ~ **qu/qc** jdn/etw (ver)än-
dern: **quando ero giovane volevo ~ il mon-
do**, als ich jung war, wollte ich die Welt ver-
ändern; **la morte del padre l'ha cambiata**,
der Tod ihres Vaters hat sie verändert
9 autom: ~ **marcia**, (in einen anderen Gang)
schalten; ~ **in salita**, am Berg schalten **B** itr
<essere> **1** (mutare) anche fig {ABITUDINI, CO-
STUMI, IDEE} sich (ver)ändern: **invecchiando**
è molto cambiato, im Alter hat er sich sehr
verändert; **i tempi sono cambiati**, die Zeiten
haben sich geändert **2** fam ~ **di qc** {DI CAME-
RA, DI POSTO} etw wechseln; {DI OPINIONE} etw
ändern **C** itr pron (trasformarsi): **cambiarsi**
in qc {PIOGGIA IN GRANDINE} sich in etw (acc)
verwandeln **D** rfl (cambiarsi d'abito): **cam-
biarsi** sich um|ziehen; (indir) **cambiarsi qc**
sich (dat) etw an|ziehen: **cambiarsi il ma-
glione**, sich (dat) einen anderen Pullover
anziehen ● **tanto per ~ abbiamo sbagliato**
strada! fig (come al solito), zur Abwechslung
haben wir uns mal verfahren! iron.

GK (2014: 1535)

Akzent für die Aussprache

Angaben zur Valenz/Rektion

Arabische Zahlen: verschiedene Bedeutungen

Beispiele

Entsprechendes Hilfsverb

Kollokatoren

Lemma

Morphologische Angaben (Konjugation)

Punkt: hier beginnen die Phraseologismen,
idiomatische Redewendungen u./o. Sprichwörter

Übersetzungen

Verbtyp A: transitiv

Verbtyp B: intransitiv

cambiàre A *verbo tr.* **1** ändern, verändern: *ho cambiato una frase nel tuo testo* ich habe einen Satz in deinem Text geändert; *non è stato cambiato nulla qui* hier wurde nichts verändert; *l'auto cambiò direzione* das Auto änderte die Richtung; *ho cambiato indirizzo un anno fa* ich habe vor einem Jahr meine Adresse geändert, ich habe seit einem Jahr eine neue Adresse; *ha deciso di cambiare vita* er/sie hat beschlossen, sein/ihr Leben zu ändern **2** (⇒ *sostituire*) wechseln, aus|wechseln: *devo cambiare la batteria dell'orologio* ich muss die Batterie der Uhr auswechseln; *cambierò le piastrelle del bagno* ich werde die Badfliesen wechseln; *ho dovuto cambiare una gomma dell'auto* ich musste einen Reifen am Auto wechseln; *ha di nuovo cambiato fidanzato* sie hat schon wieder ihren Verlobten gewechselt, sie hat schon wieder einen neuen Verlobten **3** (*vestiti, biancheria*) wechseln: *ha cambiato la camicia ed è uscito* er hat das Hemd gewechselt und ist ausgegangen; *la mamma ha cambiato il pannolino al bambino* die Mutter hat dem Kind die Windel gewechselt; *la mamma ha cambiato il bambino* die Mutter hat das Kind gewickelt; *prima di dormire cambierò le lenzuola* vor dem Schlafengehen werde ich die Bettwäsche wechseln, vor dem Schlafengehen werde ich die Betten frisch beziehen **4** (*trasporti*) umsteigen: *tutti i passeggeri sono pregati di cambiare treno* alle Passagiere werden gebeten, in einen anderen Zug umzusteigen; *a Monaco abbiamo cambiato aereo* in München sind wir in ein anderes Flugzeug umgestiegen **5** (*banca, commercio*) wechseln, um|tauschen: *puoi cambiarmi 100 euro?* kannst du mir 100 Euro wechseln? ‖ ‹*uso assoluto*›: *non ho il resto, devo cambiare* ich kann nicht herausgeben, ich muss wechseln **6** (⇒ *barattare*) um|tauschen, tauschen **7** cambiare (*marcia*) (in einen anderen Gang) schalten B *verbo intr.* **1** (*anche figurato*) sich ändern, wechseln, sich verändern: *il tempo è cambiato improvvisamente* das Wetter hat plötzlich gewechselt; *invecchiando è molto cambiato* im Alter hat er sich sehr verändert; *i tempi sono cambiati* die Zeiten haben sich geändert **2** cambiare di qualcosa, *etwas* (*acc.*) wechseln: *cambiare di camera* das Zimmer wechseln **3** (*aereo, ferrovia*) um|steigen: *alla stazione devi cambiare e prendere il treno per Kiel* am Bahnhof musst du in den Zug nach Kiel umsteigen C **cambiarsi** *verbo rifl.* (*di vestito*) sich um|ziehen, sich um|kleiden: *non sono pronto/a, devo ancora cambiarmi* ich bin noch nicht fertig, ich muss mich erst umziehen
FRAS. *forse è meglio cambiare* argomento*!* vielleicht sollten wir lieber das Thema wechseln! **cambiare** *aria* lüften ‖ (*figurato*) verduften; **cambiare** *aspetto* sich verändern, sein Aussehen verändern; **cambiare** *casa* umziehen; (**tanto**) *per cambiare* zur Abwechs(e)lung; **hai cambiato** *opinione?* hast du deine Meinung geändert? **cambiare di** *posto* a qualcosa *etwas* (*acc.*) umstellen; **cambiare** *rotta* (*nautica, aereo, anche figurato*) den Kurs ändern.

Verdiani (2010: 881)

Akzent für die Aussprache

Angaben zur Valenz/Rektion

Arabische Zahlen: verschiedene Bedeutungen

Beispiele

Entsprechendes Hilfsverb

Kollokatoren

Lemma

Morphologische Angaben (Konjugation)

Punkt: hier beginnen die Phraseologismen, idiomatische Redewendungen u./o. Sprichwörter

Übersetzungen

Verbtyp A: transitiv

Verbtyp B: intransitiv

2.   Welche Unterschiede gibt es zwischen beiden Wörterbüchern? (quantitativ? qualitativ?)

_____

_____

3.   Welches Wörterbuch finden Sie für Ihre Schüler besser? Diskutieren Sie zu zweit. Begründen Sie.

_____

_____

4. Öffnen Sie nun *leo* (Computer/ Tablet/ Smartphone, App).

    a. Vergleichen Sie die Informationen mit GK und Verdiani. Wie ist die Anordnung? Welche Unterschiede gibt es? Diskutieren Sie zu zweit.

Übersetzen Sie folgende Sätze mit *leo* ins Deutsche. (Versetzen Sie sich in ein/e Schüler/in, der/die Deutsch lernt, und natürlich nicht so gut Deutsch kann wie Sie.)

Italienisch	Deutsch
Prima di andare in Egitto, devo cambiare i soldi.	
La giacca è molto vecchia. Magari è più carina se cambio i bottoni.	
Il tempo cambia spesso.	
Dopo questa pioggia devo tornare a casa a cambiarmi.	
Bettina non abita più qui, ha cambiato casa.	
L'assegno lo può cambiare in banca.	
Ogni venerdì andiamo al cinema. Non possiamo cambiare programma?	
. . . un giorno in più o in meno, non mi cambia nulla.	
Qui non si respira più. Cambiamo aria!	

    b. Auf welche Schwierigkeiten stößt man in *leo*? Bei welchen Sätzen? Warum?

Schauen Sie jetzt im Wörterbuch von GK und Verdiani nach. Finden Sie hier die Lösung? Welche Unterschiede gibt es zu *leo*? Sind die Wörterbücher von GK oder/und Verdiani besser? Warum ja/nein?

5.2.2 AB 2

B. Wie funktionieren Übersetzungsmaschinen wie z.B. *google Übersetzer*? (https://translate.google.com/)

1. Geben Sie in *google Übersetzer* (**Italienisch** > **Deutsch**) folgende Suchstrings ein. Schreiben Sie das **Verb**, das übersetzt wird, in die Tabelle.

	Suchstring	**Übersetzung**
1.	Ho perso il treno	
2.	Ho perso il treno?	
3.	Ho perso il treno,	
4.	Ho perso il treno.	
5.	Ha perso il treno	
6.	Ha perso il treno.	
7.	Ha perso il treno?	
8.	Ha perso il treno,	
9.	Abbiamo perso il treno	
10.	Abbiamo perso il treno?	
11.	Abbiamo perso il treno,	
12.	Abbiamo perso il treno.	
13.	Perdere	
14.	Perdere il treno	
15.	Perdere il treno,	
16.	Perdere il treno?	
17.	Perdere il treno.	

2. Wovon hängen die einzelnen Übersetzungen Ihrer Meinung nach ab. Diskutieren Sie in der Gruppe. Wie erklären Sie sich die Ergebnisse?

_____

_____

3. Suchen Sie von **Deutsch > Italienisch**. Probieren Sie weiter mit folgenden Wörtern/ Sätzen. Variieren Sie dabei wie in 1.
   (1) *Er friert wie ein Schneider.*
   (2) *Absacker*
   (3) *Kommst du mit einen Absacker trinken?*
   (4) *Sie hat ihm einen Korb gegeben.*

Was fällt Ihnen auf? Sprechen Sie mit Ihrem Partner und notieren Sie.

_____

_____

_____

Wo liegen Ihrer Meinung nach die Probleme?

_____

_____

4. Suchen Sie von **Deutsch > Englisch**:

   a. Geben Sie den kompletten Satz *Er friert wie ein Schneider* ein. Dann löschen Sie nach und nach (von rechts, also dem Satzende) das Wort *Schneider* weg, also *Schneide > Schneid > Schnei > Schne . . ..*
   Was passiert?

   _____

   _____

   b. Geben Sie das Wort *Absacker* ein. Welches englische Wort erhalten Sie? Können Sie sich erklären, warum in Aufgabe 3. das Wort *berretto da notte* erschienen ist?
   Absacker = _____(engl.)

   _____

   _____

   c. Bei *ha perso il treno* erscheint in *google translate* manchmal auch *er hat das Boot verpasst*. Können Sie sich erklären, warum?

   _____

   _____

   d. Geben Sie auch den folgenden Satz ein: *Kommst du mit einen Absacker trinken?* Welchen Satz erhalten Sie?

   _____

   _____

5. Nutzen Sie nun das Übersetzungsprogramm **DeepL** (https://www.deepl.com/translator)
   Geben Sie die folgenden Wörter/Sätze ein, sowohl **Deutsch > Italienisch**, als auch **Deutsch > Englisch**.

   (1) *Er friert wie ein Schneider.*
   (2) *Absacker*
   (3) *Kommst du mit einen Absacker trinken?*
   (4) *Sie hat ihm einen Korb gegeben.*

   Wie ist Ihr Eindruck?

   _____

   _____

5.3.3 AB 3

C. Wörter im Kontext suchen

1. Geben Sie *Frage* in den ***Online-Duden*** (www.duden.de) ein.

   a. Welche Informationen erhalten Sie?

   Wortart, _____

   _____

   b. Wie viele Beispiele werden angeführt? Welche? Schreiben Sie auf.

   _____

   _____

   c. Was gefällt Ihnen an *duden.de* und was nicht? Diskutieren Sie zu zweit.

   positiv: _____

   _____

   negativ: _____

   _____

2. a. Suchen Sie typische (frequente) Verbindungen. Verwenden Sie ***Linguee*** (www. linguee.de) und ***Reverso Wörterbuch*** (http://woerterbuch.reverso.net/) und geben Sie „Frage" und „Diskussion" in die Suchmaske ein. Schreiben Sie auf, welche Wortverbindungen bereits beim Eintippen in die Maske erscheinen. (Wichtig: Noch nicht auf 🔍 bzw. „Enter" drücken!)

   Frage: Fragestellung, in Frage stellen, _____

   _____

   _____

   Diskussion:

   _____

   _____

   _____

   b. Variieren Sie den Suchstring, indem Sie einen Artikel hinzufügen, z.B. „eine Frage", „die Diskussion". Vergleichen Sie die Ergebnisse mit a). (Wichtig: nicht 🔍)

   _____

   _____

   c. Welchen Vorteil haben *Linguee* und *Reverso* gegenüber *Duden*?

   _____

   _____

d. Geben Sie nun den Satz *Ho perso il treno* in *Linguee* ein. Welche Entsprechungen werden gezeigt? *der Zug ist im Hinblick auf… abgefahren,* _____

_____

_____

_____

e. Öffnen Sie **Reverso Context** (nicht Wörterbuch!), sondern: http://context. reverso.net/übersetzung/) Geben Sie auch hier den Satz *Ho perso il treno* ein. Welche Entsprechungen erhält man? *den Zug verpassen,* _____

_____

_____

f. Fahren Sie mit der Maus über die Sätze und klicken Sie auf ◁)). Was ist zu hören?

_____

_____

g. Was passiert, wenn Sie auf den <u>unterstrichenen Satzteil</u> klicken?

_____

_____

3. Öffnen Sie das **Digitale Wörterbuch der deutschen Sprache** (**DWDS**) (www. dwds.de)
   a. Welche 3 Suchmöglichkeiten gibt es?

   _____

   _____

   b. Klicken Sie auf „Textkorpora" und wählen Sie im Feld „Korpus": Die Zeit (1946–2018). Bei der „Anzeige" wählen Sie „KWIC" und bei „Anzahl Treffer pro Seite": 25. Geben Sie in das obere Suchfeld „Frage" ein und klicken Sie auf ◌.
   Was glauben Sie, wofür können solche Sätze aus Korpora nützlich sein?

   _____

   _____

   _____

   _____

   c. Suchen Sie nach der Bedeutung von *keine Frage* im Satz *Keine Frage. Ich bin alles andere als* zufrieden. Italienische DaF-Studierende übersetzen gerne mit *Nessuna domanda*, was aber falsch ist. Geben Sie in die Suchmaske (oben) „Keine Frage" ein und klicken auf ◌. Schauen Sie sich die Beispiele an. Welche Bedeutung hat *Keine Frage*? und wie wird die Wortkombination im Satz verwendet?

_____

d. *Infatti* wird im Deutschen gerne mit *In der Tat* übersetzt und an den Satzanfang gestellt. Geben Sie in die Suchmaske „in der Tat " ein. Was fällt Ihnen sofort auf?

_____

e. „Rück"übersetzen Sie mündlich die Bedeutung von „in der Tat" von einigen deutschen Sätzen ins Italienische, z.B. würde man im Satz *da es sich in der Tat um symbolisch-aktionistische Politik* im Italienischen mit *in realtà* wiedergeben?! Probieren Sie verschiedene Beispiele aus. Zu welchem Ergebnis gelangen Sie?

_____

f. Gehen Sie zurück auf die Startseite und öffnen Sie „Statistiken". Klicken Sie auf „DWDS Wortprofil" und geben Sie „Frage" ein. Klicken Sie auf „im DWDS-Wortprofil suchen". Was erscheint?

_____

Klicken Sie auch auf das Symbol der Wortwolke: ☁ . Was bedeutet die Schriftgröße?

_____

g. Die Bedeutung von *Examen* ist nicht identisch mit der Bedeutung des italienischen *esame*. Wo, wer und wann "macht" ein *Examen*? Welche Bedeutung hat das Wort Examen im Deutschen? Erklären Sie. Welche Adjektive und welche Verben stehen oft in Verbindung mit *Examen*? Recherchieren Sie wie in den Textkorpora, wie in 3b–f.
    Bedeutung von *Examen*:

_____

Häufige Adjektive mit Examen:

_____

Häufige Verben mit Examen:

_____

_____

h. Oft wird *preparare un esame* von DaF-Lernenden **eine Prüfung präparieren*
    oder **ein Examen präparieren* wiedergegeben, was nicht korrekt ist.
    Schauen Sie sich das Wortprofil von präparieren an. Recherchieren Sie wie in 3
    f./g. Schauen Sie sich folgende Verwendungsbeispiele an. Welche Bedeutung
    hat *präparieren*? In welchen Kontexten wird das Wort verwendet?

    _____

    _____

    _____

5.4 Questionnaire 2 after the workshop

Evaluation des Workshops /
Fragebogen zur Benutzung von Wörterbüchern im Unterricht
Allgemeine Evaluation:

1   Insgesamt hat mir der Workshop gut gefallen.   ☺ ☺ ☹
2   Der Workshop war gut vorbereitet und organisiert.   ☺ ☺ ☹
3   Die Arbeitsaufträge waren sinnvoll, anregend und ansprechend.   ☺ ☺ ☹

4. Glauben Sie, dass **Sie sich** jetzt, **nach dem Workshop**, <u>besser</u> mit Online-Wörter-
    büchern und Wörterbuch-Apps auskennen?
    Ja ( )   *Nein* ( )

5. Was hat Ihnen am meisten <u>gebracht</u>? Was war <u>am nützlichsten</u> für Sie?

    _____

    _____

    Hat es Ihnen auch <u>Spaß</u> gemacht?
    Ja ( )   *Nein* ( )

6. Was würden Sie sich in Bezug auf das Thema *Online-Wörterbücher und Apps im*
    DaF-Unterricht noch wünschen?

    _____

    _____

    _____

7. **Nur beantworten**, falls Ihre Schüler bisher **keine** (Online-)Wörterbücher im Unterricht nutzen durften! Haben Sie Ihre Meinung jetzt, nach dem Workshop, geändert?

    Ja ( )   *Nein* ( )

8. Werden Sie das Thema *Online-Wörterbücher und Apps* <u>in Zukunft in den DaF-Unterricht</u> einbeziehen?

    Ja ( )   *Nein* ( )

9. Wenn *Nein*, warum nicht?

    _____
    _____
    _____

10. Wenn *Ja*, warum ?

    _____
    _____
    _____

11. Was möchten Sie gerne mit Ihren Schülern machen? Welche Ideen haben Sie?

    _____
    _____
    _____

12. Ich würde gerne an einer Fortsetzung des Workshops teilnehmen.

    Ja ( )   *Nein* ( )

13. Sonstiges:

    _____
    _____
    _____

Vielen Dank für Eure Mitarbeit!

6 Bibliography

6.1 Monographs and articles

Council of Europe (2001): *Common European framework of reference for languages: learning, teaching, assessment*. Cambridge: Cambridge University Press.

Council of Europe (2020): *Common European framework of reference for languages: learning, teaching, assessment. Companion volume with new descriptors*. Strasbourg: Council of Europe [https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4; last access: 15.04.2024]

Dringó-Horváth, Ida (2012): Lernstrategien im Umgang mit digitalen Wörterbüchern. *Fremdsprache Deutsch (Themenheft Lernstrategien)* 46, 34–40.

Hatherall, Glynn (1984): Studying dictionary use: some findings and proposals. In: Hartmann, R.R K. (ed.): *LEXeter '83 proceedings*. Tübingen: Niemeyer, 183–189.

Lew, Robert/Galas, Katarzyna (2008): Can dictionary skills be taught? The effectiveness of lexicographic training for primary-school-level Polish learners of English. In: Bernal, Elisenda/DeCesaris, Janet (eds.): *Proceedings of the XIII EURALEX International Congress: Barcelona, 15–19 July 2008*. Barcelona: Universitat Pompeu Fabra, 1273–1285.

Müller-Spitzer, Carolin/Nied Curcio, Martina/Domínguez Vázquez, María José/Silva Dias, Idalete Maria/Wolfer, Sascha (2018): Correct hypotheses and careful reading are essential: results of an observational study on learners using online language resources. In: *Lexikos* 28, 287–315.

Nied Curcio, Martina (2014): Die Benutzung von Smartphones im Fremdsprachenerwerb und -unterricht. In: Abel, Andrea/Vettori, Chiara/Ralli, Natascia (eds.): *Proceedings of the XVI EURALEX international congress: the user in focus, 15–19 July 2014*. Bolzano/Bozen: Institute for Specialised Communication and Multilingualism, 263–280.

Nied Curcio, Martina (2015): Wörterbuchbenutzung und Wortschatzerwerb. Werden im Zeitalter des Smartphones überhaupt noch Vokabeln gelernt? *Info DaF* 5, 445–468.

Nied Curcio, Martina (2022): *L'uso del dizionario nell'insegnamento delle lingue straniere*. Roma: Roma Tre Press.

Wiegand, Herbert Ernst/Beißwenger, Michael/Gouws, Rufus H./Kammerer, Matthias/Mann, Michael/Storrer, Angelika/Wolski, Werner (2010) (eds.): *Wörterbuch zur Lexikographie und Wörterbuchforschung. Dictionary of Lexicography and Dictionary Research*, vol. 1: *A–C*. Berlin/Boston: De Gruyter.

Zöfgen, Ekkehard (2010): Wörterbuchdidaktik. In: Königs, Frank G./Hallet, Wolfgang (eds.): *Handbuch Fremdsprachenunterricht*. Seelze/Velber: Klett Kallmeyer, 107–110.

6.2 Dictionaries

Printed dictionaries

GK = Giacoma, Luisa/Kolb, Susanne (2001, [2]2009, [3]2014, [4]2019) (eds.): *Il nuovo dizionario di Tedesco. Dizionario Tedesco-Italiano. Italiano-Tedesco*. Bologna/Stuttgart: Zanichelli/Pons.

VERDIANI (2010) = Verdiani, Silvia (2010): *Tedesco Junior. Dizionario di apprendimento della lingua tedesca. Tedesco italiano – Italiano Tedesco.* Con la collaborazione di A. Hösle Borra. Torino: Loescher.

Online resources

BABBEL = it.babbel.com (last access: 15.04.2024).

COLLINS = https://www.collinsdictionary.com/de/worterbuch/englisch/relay-language (last access: 15.04.2024).

CORRIERE DELLA SERA = https://dizionari.corriere.it/ (last access: 15.04.2024).

DICT.CC = https://www.dict.cc/ (last access: 15.04.2024).

DUDEN = https://www.duden.de/ (last access: 15.04.2024).

DWDS = https://www.dwds.de/ (last access: 15.04.2024).

Google translate = translate.google.com (last access: 15.04.2024).

LANGENSCHEIDT = https://de.langenscheidt.com/deutsch-italienisch/deutsch-italienisch (last access: 15.04.2024).

LEO = https://www.leo.org/tedesco-italiano (last access: 15.04.2024).

LINGOSTUDY = https://www.lingostudy.de/woerterbuch-suche-einstieg (last access: 15.04.2024).

LINGUEE = https://www.linguee.de/ (last access: 15.04.2024).

PONS = https://de.pons.com/ (last access: 15.04.2024).

QUIZLET = https://quizlet.com/de (last access: 15.04.2024).

REVERSO = https://www.reverso.net (last access: 15.04.2024).

REVERSO CONTEXT = https://context.reverso.net/%C3%BCbersetzung/ (last access: 15.04.2024).

SANSONI = https://dizionari.corriere.it/dizionario_tedesco/ (last access: 15.04.2024).

WORDREFERENCE = https://www.wordreference.com/ (last access: 15.04.2024).

Valeria Zotti

Have electronic corpora made dictionaries obsolete? Some encouraging results from an international teaching experiment in the field of French artistic vocabulary

Abstract: We present an international pedagogical experiment carried out as a part of a Lexicography and Corpus Linguistics course whose aim is to test the use of dictionaries and corpora for decoding and translating French texts of varying degrees of specialization within the domain of Fine Arts. This paper focuses on the observation of a sample of terms and multi-word expressions in three main French language dictionaries and in three monolingual corpora. The purpose of our experiment is to assess whether consulting print and online dictionaries is still of any benefit for Generation Z foreign language students due to the spread of open access corpora.

Keywords: lexicography, corpus linguistics, French language, artistic vocabulary, dictionary use

1 Introduction. The survival of dictionaries: Theoretical debate and concrete actions

A myriad of studies have discussed the advantages of using corpora as a source of linguistic data to supplement the fragmentary information given in dictionaries (Rundell/ Stock 1992, Hausman/Blumenthal 2006, Bertels et al. 2009, Landure 2013, Loock 2016, Poudat/Landragin 2017). Corpora are seen as a treasury containing valuable indications which can enrich both monolingual and bilingual traditional lexicographic resources (Bertels/Verlinde 2011, Granger 2021).

Fewer studies, however, have been devoted in recent years to the critical use of lexicographic resources as an essential skill for linguists and translators, just as little attention has been given to the pivotal role of dictionaries in organizing data which is generated automatically from text corpora. Moreover, as Nied Curcio (2022: 11) noted, empirical studies on dictionary use in foreign language teaching, where the learner is the user, are less frequent for languages such as French or Spanish.

This article will present a pedagogical experiment undertaken during the academic years 2019–2020 and 2020–2021 in two Master's degree programs, one in France, the

Valeria Zotti, University of Bologna (Italy), Department of Modern Languages, Literatures and Cultures (LILEC), Via Cartoleria, 5 – 40124 Bologna (Italy), e-mail: valeria.zotti@unibo.it

other in Italy: the Master LTTAC (Lexicography, Terminography, Automatic Corpus Processing) founded by Pierre Corbin and directed by Nathalie Gasiglia for many years, at the University of Lille, where the author was in charge of the Bilingual Lexicography course; and the International Master LSC (Language, Society & Communication) at the University of Bologna, where the author has been teaching Applied Linguistics, including Lexicography and Corpus Linguistics for several years.

The aim of the course offered in these two masters' programmes was to provide future linguists and translators with fundamental competences in the use of practical tools for linguistic analysis in the French language. These tools can be grouped broadly into three distinct types: 1) Lexicography/Terminography: paper and electronic monolingual, bilingual and specialized dictionaries; terminological databases; 2) Corpora (Reference, Web, and Specialized Corpora); 3) Machine Translation software. In this paper we will focus on the first two types, with special attention given to monolingual dictionaries in the first case, and to comparable corpora in the second.

The applied approach to the study of linguistics which characterizes these courses is underpinned by a reflection on the development of the new skills required in multilingual communication professions, which are precisely the skills targeted in these two master's degrees (lexicographer, lexical project manager, terminologist, translator-terminologist, writer of practical guides and technical or commercial catalogues, editorial IT specialist).

The pedagogical experiment is also in line with the theoretical reflection that has been underway for more than two decades (Atkins 1996, Fuertes-Olivera/Bergenholtz 2011, Gouws 2018) concerning the future of dictionaries. Two such studies are particularly noteworthy in this regard:

1) "Lexicographers' Dreams in the Electronic-Dictionary Age" published in 2003 in the *International Journal of Lexicography* by Gilles-Maurice de Schryver, raises the following questions: What are the advantages of paper dictionaries over electronic ones, and vice versa? What would the characteristics of the electronic dictionary of our dreams be? What will the future of the dictionary be? In 2024, an even thornier question can be added, i.e. what will the future of dictionaries be in the time of AI?

2) The second line of enquiry was launched at a workshop, organized by Laura Balbiani, Anne-Kathrin Gärtig-Bressan, Martina Nied Curcio, Stefan Schierholz, in Villa Vigoni (Italy) in 2018 devoted to the theme: *Dictionaries of the future – the future of dictionaries: The challenges of lexicography in the digital society*. During the meeting, participants discussed several issues, including: the transition from paper to online dictionaries, users' preference for free online data without proof of reliability, the role of university research in introducing students to the use of online dictionaries, and the role of lexicography in a digital society.

Two of *Villa Vigoni's 15 Theses on Lexicography* tie in with the results of the pedagogical experiment under consideration. The results, albeit partial, confirm the added value of dictionaries at a time in history when their survival is threatened.

2 Teaching the use of dictionaries vs. corpora exploration

The idea of proposing this activity involving the use of dictionaries and corpora for complementary tasks came after observing over the last twenty years of teaching that dictionaries are less and less recommended by teachers, both in secondary education and at university. As observed by Nied Curcio (2022: 9), in the reality of foreign language teaching, it seems in fact that the use of dictionaries, whether monolingual or bilingual, is no longer taken into consideration. It is often left up to the individual teacher to decide whether and how much to use them in lessons, supposing it is even allowed.

In our experiment focused on both print and online French dictionaries, 85% of 1st-year LSC Master's students, most of whom came from various Degrees in Foreign Languages and Literatures or Language Sciences, admitted that they had been given no training at all in consulting one of the main French language dictionaries, *Le Petit Robert*, either in the full subscription version or in the partial version available free online. The same observation applies to print and online bilingual dictionaries, which are usually consulted to solve translation difficulties without, however, any understanding of their characteristics.

On the other hand, graduate students from Translators and Interpreters degree programmes (on average 15% of students in the Italian course) have been trained in the use of concordancers to perform corpus searches, especially for specialized languages. However, they know little about the main French monolingual and bilingual print and online dictionaries, as they are presented during practical translation lessons to them only as a list of reference works, but their functions and distinctive features are not explained.

Consultation of dictionaries is limited increasingly often to random searches in online dictionaries, without real understanding of their purpose and structure. For example, as far as French lexicographic resources are concerned, students indiscriminately consult encyclopaedic dictionaries, such as *Larousse*, and normative language dictionaries, such as the *Dictionnaire de l'Académie* (DAF). This lack of awareness of the differences between lexicographic resources seems to be widespread also among teachers of foreign languages at the university level. We have unfortunately noticed that many scholars themselves do not recognize the difference between descriptive and normative dictionaries, use the same designation for works that have clearly been designed for different purposes. Specialists of linguistic disciplines other than metalexicography may even publish scientific papers containing metalexicographic inaccuracies.

Increasing use of corpora is *de facto* widely recommended in many fields and is central to contemporary university research in: language learning (Boulton 2007, Ciekanski 2014; Di Vito 2013), grammar teaching (Auzeau/Abiad 2018), didactics of specialised languages (Goes et al. 2020) and, of course, in translation practice (Zanettin 2014). In every-day practical classes, the teaching of corpus techniques is not associated (or

not enough) with instruction in how to interpret information given by dictionaries. The risk is that corpora are used more and more "unthinkingly", as observed by Hanks with reference to corpora used for dictionary-making (2009: 214):

> While arguing that corpora enable improved dictionaries, I address a number of issues which suggest that corpora should not be used unthinkingly, for example it is important for compilers to address questions such as whether a dictionary is intended primarily for decoding or encoding purposes, hence a corpus ought not to be used just to produce larger and larger new editions of dictionaries with more and more "authentic" examples (Hanks 2009: 214).

Thus, it seems that teaching lexicographic competence largely remains the exclusive preserve of specialists in lexicology and lexicography, within courses in lexicography (Prcic 2020) or in practical dictionary-making (Atkins/Rundell 2014).

Considering the lack of attention and awareness about the importance of using dictionaries, the purpose of our experiment is to assess whether consulting traditional print and online dictionaries is no longer of any benefit for the Generation Z[1] foreign language students due to the spread of open access corpora. We carried out this experiment within a specific domain, the vocabulary of Fine Arts, transcending different textual genres (travel literature, travel guides, specialized and general press).

3 The pedagogical experiment with artistic vocabulary

The pedagogical activity undertaken in both master's programs involves the combined use of dictionaries and corpora as working tools for two different and complementary tasks:

1) The *decoding* of French texts of varying degrees of specialization (from general or popular texts to literary and specialized texts); this task is primarily carried out using different types of language dictionaries and is then refined through the observation in monolingual corpora of some "lexical units problematic with respect to definitions", i.e. collocational or multi-word expressions (Mel'čuk/Polguère 2018).

2) The *translation* of a sample of French texts into Italian or English (L2), i.e. *Version* (Fr > It or En) for students in Bologna, *Thème* (Fr > It or En) for those in Lille; this task was accomplished by consulting bilingual dictionaries and plurilingual terminological databases and then confirmed or completed by searching for potential translation counterparts in comparable corpora.

---

1 The Oxford Dictionaries define Generation Z as "the group of people who were born between the late 1990s and the early 2010s, who are regarded as being very familiar with the internet."

Students in both courses were asked to test the usefulness of traditional lexicographic resources both in paper and/or electronic form (monolingual, bilingual and terminological dictionaries), as well as a new generation of electronic dictionaries (bilingual dictionaries with concordances, e.g. *Reverso Context*). As for corpora, one general, one literary and one specialized text corpus were queried using the SketchEngine concordancer tool.

In the final stage of this work, students were asked to validate their translation proposals, made by consulting dictionaries and corpora, by comparing it with the translation given by two free Machine Translation tools available online (*Google Translation* and *DeepL*) and to create an entry in an ideal extensive bilingual dictionary. The two last stages[2] cannot be dealt with in detail here due to space constraints.

3.1 The analysis sample

In the pedagogical experiment now under consideration, the resources evaluated by the students were numerous and varied (dictionaries, corpora, MT tools), as noted above.

It is for this reason that each student was asked to analyse just one word from a sample of lexical units extracted from a specialised corpus in the field of art, the LBC French Corpus (Lexicon of Cultural Heritage).

This corpus is one of the comparable corpora compiled as part of the LBC project (Multilingual Cultural Heritage Lexis Research Project), established in 2013 under the aegis of the Department of Languages, Literatures and Intercultural Studies at the University of Florence, the aim of which is to satisfy the needs of an international public in search of information on Italian cultural heritage by promoting research on its representation in the lexis in different languages (Farina 2016).

The LBC comparable corpora currently available in six languages (French, English, Italian, Russian, Spanish, German), describe Italian cultural heritage in the past and present. Texts with varying degrees of specialisation have been brought together for each language by applying comparability criteria, i.e. for original language texts, the recognised authority of the text/author in the culture to which it belongs as well as its dissemination (Billero/Nicolás 2017: 208).

This corpus was chosen for the experiment reported herein because it provides access to a type of language, the language of Fine Arts (architecture, painting and sculpture), characterized by considerable multidisciplinarity and interplay between discourse-types, resulting in a combination of different degrees of technicality midway between humanities and exact sciences (Zotti 2023). Thus, several different discourse-types in French are included: general or popular texts (tourist guides and blogs,

---

2 The Bilingual Lexicography course held at the Master LLTAC at the University of Lille focused above all on these last two stages.

such as *Bellitalie.org*); literary texts (writers' correspondence, fiction, such as Mme de Stael's novel *Corinne ou l'Italie*); technical texts (art history textbooks, art criticism and specialist dictionaries of Fine Arts, such as Viollet Le Duc (1854), *Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle* (cf. Figure 1).

Figure 1: Concordance hits for the lemma *église* in a specialised text from the French LBC Corpus.

The language of Fine Arts presents a very interesting lexical and discursive reservoir to analyse the usefulness of dictionaries in decoding artistic terms which would be intelligible for a public of semi-experts and non-experts. It is, in fact, a variety of natural language used by experts (painters, architects, etc.) "to give a technical account of specialised knowledge" (Lerat 1995: 21), but at the same time it belongs to the common language, given that words used by artists, such as *toile* (canvas), *pinceau* (brush), *couleur* (colour), *arcade* (arcade), *figure* (figure), are also words of everyday life. Finally, it is a "language characterised by an abundance of synonyms", as stated by Diderot (*Encyclopédie*, ART, 1751).

The lemmas analysed by students, which correspond to keywords extracted from the corpus, are the following (in alphabetical order): *auvent* (canopy), *arcade* (arcade)*, balustrade* (balustrade)*, camaïeu* (camaieu)*, clocher* (bell tower), *colonne* (colomn), *coloris* (colour), *coupole* (cupola), *dôme* (dome), *façade* (facade), *fresque* (fresco), *gouache* (gouache), *gravure* (engraving), *loge* (lodge), *marqueterie* (marquetry), *médaillon* (medallion), *peinture* (painting), *porche* (porch), *portail* (portal), *portique* (portico), *toile* (canvas), *tombeau* (tomb), *voussure* (voussoir)*.

This sample includes words which lie precisely on a continuum between specialised language and general language: general language words such as *clocher* (bell tower), *colonne* (column), *façade* (façade) and *fresco* (fresco), which form the basis of a number of specialised collocations, e.g. *colonne engagée* (engaged column), as well as painting

terms such as *coloris* (colour) and *gouache* (gouache), and architectural terms such as *voussure* (voussoir), which correspond to a specific concept within the discipline. A detailed analysis of each word in the sample would be beyond the scope of this article.[3] Our objective is to show that students' experience triggered a critical awareness of the strengths and limitations of the various resources that they consulted, for the purposes of decoding meaning (semantic information) and production (semantic and functional equivalence in translation).

Students were also asked to translate a random sample of textual fragments, extracted from the LBC corpus, containing each lexical unit (n=20 examples for each student), in order to obtain attestations of how the lexical unit was used in context and in different textual types (see 3.3).

In this section, we summarize the various stages of a lengthy process, which took place within the context of a 60-hour teaching module, with alternating phases of practical work and theoretical elaboration.

Each student examined the assigned word first in the dictionaries and then in the corpora from two points of view:
– *Quantitative analysis* (presence/absence in the nomenclature of the selected dictionaries and corpora; number of attestations in the corpora)
– *Qualitative analysis* (presence of literary or technical quotations; nature and authority of attested sources; quality of semantic information through lexicographic definitions and of contextual/discursive information through corpus concordances).

The main stages in this process on which we will focus are, first, the consultation of French dictionaries and intralinguistic analysis, and secondly corpus exploration for dictionary enrichment.

3.2 French monolingual dictionaries and intralinguistic analysis

The first stage of the work (*intralingual analysis*) aims to identify the semantics (precise meaning) of the selected word and characterize its use, by consulting several prominent French language dictionaries available in paper or electronic format, namely:
– *Dictionnaire de l'Académie française*, 1st–9th Edition (DAF)
– *Trésor de la Langue française informatisé* (TLFi)
– *Grand Robert* (GR) et *Petit Robert* (PR)

Using a random sample of textual fragments contained in the French LBC corpus (textual sample, see 3.1), which illustrate possible contexts and different degrees of

---

3 A more detailed analysis can be found in Zotti (2021), focused on the reciprocal relationship of inclusion existing between dictionaries and corpora.

specialisation for the word under examination, students were asked to answer the following questions concerning the microstructural features of the dictionaries:

1) *Definitions*: Does the lexical unit have several meanings (polysemy)?
2) *Domain marks*: Does the lexical unit (and/or its compounds) belong to different technical domains related to the description of artistic heritage (i.e. painting, sculpture, architecture, fine arts)?
3) *Examples*: Are examples enough to understand the use of the word in the different contexts given by the textual sample?
4) *Phraseology*: Which general and/or specialized collocations and set phrases are indicated in the dictionary?
5) *Electronic version*: Does the electronic version of the dictionary offer effective advanced search query functions which return pertinent results?

As explained previously, the pedagogical objective of this phase is to teach students how to consult dictionaries properly, while fostering an awareness of the typological as well as ideological diversity resulting from the social and cultural system in which each dictionary originates and evolves (Zotti 2008: 60). The focus on the function of the microstructural elements of the dictionaries under examination is thus aimed at making students aware of the importance of reading these reference works with discernment.

3.3 Corpus exploration and dictionary enrichment

The aim of corpus analysis was to determine whether the corpora available for the French language provide new or additional information on the lexicon of fine arts compared with that found in the dictionaries examined previously. The three corpora which were chosen have distinctive characteristics in terms of size and content, respectively, the first is literary, the second is generalist, and the third is specialised in Art:

– the *Frantext* corpus, a textual corpus (270 million words) consisting mainly of literary and philosophical texts, but also scientific and technical texts (around 10%), dating from 1180 to 2013, developed by ATILF-CNRS;
– the *French Web 2017* corpus (frTenTen17), a very large corpus (5.7 billion words) made up of texts collected automatically from the Web (Jakubíček et al. 2013);
– the *LBC French Corpus* (*Lexicon of Cultural Heritage*), a quite small comparable specialized monolingual corpus (3.2 million words, according to Farina/Sini 2020), the same used previously to collect the analysis word sample and the textual sample (see 3.1).

These corpora were chosen precisely because they cover different degrees of specialization of the artistic lexicon. Each of them corresponds primarily to one of the text

categories mentioned above, i.e. LET (literary), DIV (popularization)[4] and TEC (technical). This time, the questions students were asked to answer concerned the usefulness and potential of corpora for both dictionary enrichment and for word sense discrimination:

a) Which corpus data are the most useful as a complementary source of information to improve existing general dictionaries?

b) Do corpora reveal additional usage patterns (free associations, general or specialized collocations, fixed expressions, etc.) that are not attested in the lexicographic resources? (see Kilgariff 2013; Rees 2022).

c) To what extent does the exploration of distributional patterns in a corpus (Vicente 2010) facilitate or enhance the semantic analysis of problematic lexical units, i.e. collocational lexical units, whose definition is not straightforward (Mel'čuk/Polguère 2018: 477)? In other words, when the definition of a specialised collocation is not present in a reference dictionary, are the results of corpus queries useful for decoding its meaning in context?

4 Results: Dictionaries vs. Corpora

In this section we will illustrate, through some noteworthy examples taken from our sample, the advantages and limitations of each of the resources as part of our pedagogical experiment.

4.1 *Dictionnaire de l'Académie française* (DAF)

The *Dictionnaire de l'Académie française* (DAF) is one of the oldest normative dictionaries of the French language. The first edition dates from 1694 and was followed by seven others dating from 1718, 1740, 1762, 1798, 1835, 1878 and 1935 respectively. The ninth edition will be completed soon and will contain almost 60,000 entries. It will undoubtedly be the most accomplished version of the academic project at its inception to which it has remained steadfast throughout the centuries: "to give certain rules to our language and to make it pure, eloquent and capable of dealing with the arts and sciences" (*Statut de l'Académie Française*, 1635, article XXIV). Because of its continuity over time, the DAF is incomparable as a resource for the study of the French language and its historical development. It also offers a unique panorama of society and customs over nearly four centuries. Thanks to a new digital portal, the nine editions have now been brought together in a single interface, containing over 250,000 entries which is easily accessible free of charge on the Internet. This interface makes it easy to study

---

4 TenTen Corpus is not specifically popularization, but, in general, most mentions of Fine Arts and uses of artistic vocabulary are found in such contexts.

the semantic evolution of a lexical unit over time through the analysis of changes in definitions and exemplification.

The French word *portail* (portal) was queried by one student in the different editions of the DAF. Although terms from the sciences and the arts were initially excluded from the 1st edition (*Preface*, DAF 1694) and only "those which are extremely well known & of great use" were gradually included in its successive editions (from the 2nd ed. 1718 to the 8th ed. 1932), the word *portail* has been included since the first edition (as is true for 9/20 words in our sample). The semantic evolution of this word can thus be reconstructed diachronically from the comparison of the different entries. There is no fundamental change in the definitions between the 1st and 4th editions where two primary meanings are distinguished: 'main door of a church' and 'main facade of a church'. In the 5th–7th editions these two meanings are condensed into one: "the façade of a church where its main door is located". The 8th edition (1935), however, shows a radical departure: a new meaning appears which corresponds to a major transformation in society. The word *portail* now generically denotes 'a big door' and the example shows that it can designate the big door of any kind of building (for example a garage) and no longer the big door of a church specifically.

The 9th online edition of the DAF introduces major changes in the description of the specialised meanings of words, both inside and outside of dictionary entries. First, domain labels, inexistent in previous editions, have been added to the microstructure (Catach 2019). Here the "Architecture" domain label precedes the definition of the specialised meaning of the word *portail* ("Monumental ensemble comprising one or more doorways, located on one of the façades of a religious building") and is thus distinguished from the general meaning with no domain label ("A wide door with one or two leaves, used to enclose a property"). Secondly, for the first time, the 9th edition provides links to external resources, particularly the *FranceTerme* database, which lists officially recommended scientific and technical words, and the *Base de données lexicographiques panfrancophone – Internationale* (BDLP Internationale), which gives access to twenty representative French-language databases from each of the countries and regions of the French-speaking world (*Francophonie*). Thus, in *FranceTerme*, the word *portail* is assigned to the technical domain "Information technology and telecommunications". This word is not attested in the BDLP Internationale, but it is worth noting that this database does contain relevant information for another word present in our lexical sample: *portique* (portico). For instance, the BDLP-Québec attests another meaning specific to Québec French which reveals a different extralinguistic object typical of North American architecture: "A projecting structure, eaves sheltering the entrance or stoop of a house or building; entrance, stoop thus sheltered".[5] Thus, this integration with

---

5 "Construction en saillie, avant-toit abritant l'entrée, le perron d'une maison d'habitation, d'un édifice; entrée, perron ainsi abrité. – (Emploi critiqué). Hall d'entrée, vestibule". BDLP Québec: https://www.bdlp.org/base/Qu%C3%A9bec; last access: 26.04.2024.

external lexicographic and terminographic electronic resources in the latest edition of the DAF confirms that, even for a normative dictionary in the French tradition, there is no longer a clear distinction between terminography and lexicography, these two disciplines having come so close as to converge their methodology and working procedures (Cabré 2018: 38). In the vast majority of cases, links to *FranceTerme* do not duplicate the dictionary, which describes the general meaning of words and is not intended to be either terminological or encyclopaedic. In addition, *FranceTerme* is mainly concerned with terminological neology, and therefore covers quite recent vocabulary, which is not included in the DAF's objectives either (Catach 2019: 351).

Students participating in the experiment recognized the usefulness of the DAF especially with regard to the study of the diachronic evolution of words and for word sense disambiguation and identification of specific technical meanings in French words. Students found the DAF to be a valuable resource in decoding the meaning of the word as evidenced in the corpus fragments in literary and technical texts from the past (particularly the 17th and 18th centuries).

The primary weakness of the DAF observed by students concerns exemplification. The 9th edition remains faithful to the *Académie*'s vocation of being the guardian of *bon usage* (good usage), thus excluding any new examples that are still evolving. Hence, with regard to two assessment points: understanding use in context (exemplification) and finding collocations in the field of Fine Arts (phraseology), this dictionary was not judged to be satisfactory (cf. Table 3 *infra*).

As far as the evaluation of the electronic version is concerned, students recognized that the website of the DAF (version 4, 2022) features a new advanced search module, allowing all kinds of new searches to be performed on the corpus of the nine early editions (cf. Figure 2). The full-text search is also able to handle archaic spellings, i.e. it can search for a word even in its older forms (Catach 2023: 292), e.g. *camayeu* for *camaïeu*, *gouasse* for *gouache*, as well as search for the origin of words, based on the etymologies in the 9th edition. These features proved very useful in our experiment, where students were asked to test this dictionary for the comprehension of textual fragments from past centuries where archaic spellings are frequently attested. The other advantage, which will stand out more when compared with other resources, is that the new DAF portal is free of charge and easy to access.

4.2 *Trésor de la Langue Française informatisé* (TLFi)

The second dictionary we tested was a pioneering corpus dictionary, the *Trésor de la Langue Française informatisé* (TLFi), which has been freely searchable on the Internet since 1999 (Pierrel et al. 2004). The entries in the TLFi are illustrated by examples taken from works digitized from the 1960s onwards in the *Frantext* corpus, considered to be the first major French text corpus. TLFi is an extensive dictionary, with over 100,000 entries in its nomenclature, and, as its subtitle indicates, *Dictionnaire de la langue du 19e*

Figure 2: Advanced search module for the 9th electronic edition of DAF.

et du 20e siècle (1789–1960), it describes the language of the 19th and 20th centuries. The TLF has not been updated since it was completed in 1994, so the entries do not reflect recent changes in society. Despite this limitation, which is clearly stated in the interface of the online platform, the TLFi offers a source of examples of inestimable breadth and value, incorporating a large number of literary quotations as well as lexicons for specialized discourse types. The artistic lexicon is well represented and illustrated by quotations from authors and artists who are recognized authorities in the field. The articles in the TLFi were thus well suited to the objectives of our experiment.

Numerous entries include quotations from specialist works by famous art historians and architects of the 17th and 18th centuries, such as André Félibien (cited in 398 entries), Eugène Viollet-Le Duc (491 entries) and Jules Adeline (136 entries), as well as many articles from Diderot and D'Alembert's *Encyclopédie* (1751–1772), which give this language dictionary an encyclopaedic dimension.

It is interesting to note that around 800 entries in the TLFi contain extracts from the *Diary* of the painter Eugène Delacroix (794 entries). A large number of technical terms in the field of painting are thus attested, such as *coloris* (colour/shade), *palette* (palette), *détempre* (tempera/distemper painting) and its collocations such as *peindre en détrempe* (to distemper a painting).

In the course of our experiment, students recognized, sometimes with amazement, the scope and relevance of these quotations to the comprehension of the language of Fine Arts. For example, the quotations from technical texts (treatises and manuals on

art history and art criticism) and specialized dictionaries, which are reported in Table 1 alongside a few entries from our sample, illustrate the use of these terms and provide insights.

Table 1: Quotations from art sources in the TLFi.

Entrée	Citation TLFi	Source
auvent	Lorsqu'on renonça aux chaises à porteurs pour ne plus se servir que des carrosses, ceux-ci ne pouvant pénétrer dans les vestibules, il fallut modifier le programme des entrées d'honneur; établir des *auvents* formant saillie en dehors de ces vestibules, afin de préserver les arrivants de la pluie et des bourrasques; ce qui fut fait. On donna à ces *auvents* le nom de marquises.	VIOLLET-LE-DUC, *Entretiens sur l'archit.*, t. 2, 1872, p. 260.
balustrade	Le sanctuaire se distinguait du chœur, (. . .) par une *balustrade* ou chancel particulier, placé antérieurement au maître-autel et formant la table de communion.	A. LENOIR, *Archit. monastique*, t. 2, 1856, pp. 253–254.
camaïeu	Plus simple et plus prenant peut-être [que les autres portraits d'Ingres] est le portrait en *camaïeu* de sa première femme.	L. RÉAU, *L'Art romantique*, 1930, p. 80.
coloris	Vous savez que chaque artiste a son style (. . .). Si c'est un peintre, il a son *coloris*, riche ou terne, ses types préférés, nobles ou vulgaires, ses attitudes, sa façon de composer	TAINE, *Philos. de l'art*, t. 1, 1865, p. 2.
dôme	La Descente de Croix peinte par Baroche pour le *Dôme* de Pérouse, fut une des premières imitations de Volterra en Italie.	MÂLE, *L'Art relig. après le Concile de Trente*, 1932, p. 280.
gravure	La *gravure* est un art qui s'en va, mais sa décadence n'est pas due seulement aux procédés mécaniques avec lesquels on la supplée, ni à la photographie ni à la lithographie. . .	DELACROIX, *Journal*, 1857, p. 30.
porche	À Albi, au flanc de la forteresse de brique, les derniers gothiques ont attaché un *porche* léger fouillé comme une dentelle, comme une pièce d'orfèvrerie.	HOURTICQ, *Hist. art*, Fr., 1914, p.105.
toile	Alain Fournier préférait Laprade; il insistait peu sur les règles de la composition et ne tenait à distinguer, dans les *toiles* de ce peintre délicat, que la fragilité, la translucidité, le mystère des êtres qui peuplaient ses paysages aux verts exténués.	LHOTE, *Peint. d'abord*, 1942, p. 30.

Students were also struck by references among the documentary sources from specialized dictionaries in the field of Fine Arts or Architecture, which are used to define the meaning of certain specialized senses. This is the case with the entry for *gravure* (engraving), in which the meaning relating to painting is illustrated by a definition taken from the famous reference work *Lexique des termes d'art* by Jules Adeline (1884):

GRAVURE, subst. fém.

A. Vx. Sillon. (Dict. XIXe et XXe s.).

ARCHIT. "Ornements indiqués par des tailles en creux dont on fait grand usage dans le style néo-grec pour agencer des rinceaux autour de fleurons en relief et dont la tradition remonterait à l'architecture égyptienne" (Adeline, *Lex. termes art*, 1884). [. . .]

Also, authoritative dictionaries in the field of Fine Arts, such as André Félibien's *Dictionnaire d'architecture* (1676–1690), appear in the TLFi even in the section devoted to etymology and history, as in the case of the entry *balustrade*:

BALUSTRADE, subst. fém. [. . .]

ÉTYMOL. ET HIST. [Mil. XVIe s. selon Pt ROB.] 1653 *balaustrata* (Oud. d'apr. DG); 1654 (LORET, 26 sept., 98 dans BRUNOT t. 3, p. 220: Adieu la chambre à balustrade) [*balustre*, au sens de « balustrade » 1676 (Félibien, *Dict. d'archit.* dans Gay: *balustre* signifie aussi la balustrade qui environne le lit des rois et des princes)]. [. . .]

With regard to the questions summarized in Table 3 *infra*: the description of the diachronic evolution of attested lemmas is ensured by the rich etymological apparatus, which follows the semantic section (Imbs 1971), and the rich citation apparatus. The decoding of word meaning (word sense disambiguation) corresponds to the central part of the entry devoted to semantic analysis (Imbs 1971: Préface).

As a result, the main semantic information consists in the definition, which follows the traditional lexicographic form of componential analysis. The "logical" definition or definition "by inclusion" (Pruvost 2006: 172), which consists in giving an account, in the form of an analytical statement, of the relevant semes that make up a meaning, is quite prevalent in this dictionary. For polysemous words, the TLFi follows the lexicographic tradition already suggested by Richelet (1680): the concrete meaning comes before the figurative meaning, and a technical meaning or use comes after a common meaning or use.

The students' assessment with respect to exemplification was extremely positive. As already mentioned, the TLFi is very rich in quotations and collocations – there are numerous examples for the most frequent words. Among the examples, the "binary groups" (Imbs 1971) were exploited: they were obtained by frequency analysis of electronic corpora (in the 1970s!) to obtain examples illustrating the most frequently attested associations. The collocations, called "syntagm-types", are presented either in a SYNT. part, or as italicized sub-lemmas (Forkl 2005).

Students considered that the design of the electronic version of the TLFi was not helpful in distinguishing between the different kinds of information (Klosa-Kückelhaus/Michaelis 2022: 410). Despite this, its interface facilitates the active acquisition of collocational knowledge for foreign language learners offering new ways of accessing collocations through two types of consultation (Forkl 2005): 1. Ono-

masiological consultation to find the collocative(s) of a base, i.e. the right word; 2. Semasiological consultation to grasp the semantic scope of a word-collocative (range of its collocations) and to find out about a specific collocation (meaning and linguistic properties), and 3 levels of consultation (simple search, assisted search, and complex search).

Ultimately, definitions of specialized collocations were particularly appreciated in the experiment insofar as they helped students to decode the meanings of collocations within a specialized domain. The example taken from the entry *peinture* (painting) below is significant for the specialized collocations *peinture à la colle* (glue-size)*, peinture en détrempe* (distemper paint)*, peinture à l'eau* (water colour):

PEINTURE, subst. fém. [. . .]

Peinture à la colle, peinture en détrempe ou *à la détrempe.,* « Peinture dont le liant en dissolution dans l'eau est constitué par une colle » (BARB.-CAD. 1963).

Peinture à l'eau. Peinture dans laquelle l'eau intervient comme solvant. *Les peintures à l'eau prêtes à l'emploi sont des peintures en émulsion* (DELORME 1962). [. . .]

4.3 *Grand Robert* (GR) and *Petit Robert* (PR)

Part of the course focused on two dictionaries from the same publisher, which distinguish French lexicographic resources from those available in Italy: the alphabetical and analogical dictionaries of the French language, *Grand Robert* (GR) (ed. 2020) and *Petit Robert* (PR) (ed. 2020).

Students' attention was called to two aspects in particular: firstly, the rich corpus of quotations, and secondly, the semantic networking of words, i.e. analogical cross-references within entries that sheds light on the "circulation of word meanings" within the lexicon (Rey-Debove/Rey 1993: XVII, *Préface*).

The onomasiological dimension in the PR, an alphabetical dictionary based on Paul Robert's 7-volume *Dictionnaire Alphabétique et Analogique* (1978), makes it possible to discover, through analogical cross-references, a wide range of partial synonyms with different degrees of specialization.

Cross-references to analogous words, i.e. related words with shared semantic traits, proved very useful in studying the vocabulary of a complex, hybrid field such as Fine Arts, where crossovers between different disciplines, between engineering and architecture for example, are frequent, as mentioned at the start of this study.

To illustrate this point, we will examine two significant architectural examples, the *arcade* and *balustrade* entries, excerpts of which are taken from the PR (2020):

> **arcade** nom féminin [. . .]
>
> 1 ARCHIT. Ouverture en arc ; ensemble formé d'un arc et de ses montants ou points d'appui (souvent au plur.). Les arcades d'un aqueduc, d'un cloître, d'une galerie (→ **arcature**). Les arcades de la rue de Rivoli, du Palais-Royal. Arcade aveugle, feinte, simulée. Arcade profonde. → 2. **arche**. Arcades en plein cintre, en ogive. → **1. arc**, **archivolte**.
>
> **balustrade** nom féminin [. . .]
>
> 2 Clôture à hauteur d'appui et à jour. → **garde-corps**. La balustrade d'une terrasse, d'une galerie, d'un balcon, d'une passerelle (→ **rambarde**), d'un escalier (→ **rampe**), d'un pont (→ **garde-fou**, **parapet**). Une petite balustrade. → **balustre**. Entourer d'une balustrade. → **balustrer** (vx). Être accoudé à la balustrade. Enjamber la balustrade.

The *arcade* (arcade) entry contains cross-references to *arcature* (archway), *arche* (arch), *arc* (arch), and *archivolte* (archivolt), analogous words found in texts on this subject to designate the various types (hyponyms) or parts (meronyms) of *arcades*. Also, the entry *balustrade* (balustrade) refers to *garde-corps* (railing), a synonym of *entrée* (entry), and to *rambarde* (rail), *rampe* (ramp), *garde-fou* (railing) and *parapet* (parapet), i.e. hyponymous words belonging to the same associative field.

This system of cross-references is not only useful for production (encoding), but when dealing with specialized language as well, inasmuch as analogical cross-references reveal differences in meaning between almost synonymous words, e.g. between *balustrade* (balustrade) and *rambarde* (rail). Direct access via hyperlinks to analogous entries in the electronic version of Le Robert dictionaries solves many of the problems related to the representation of inter-lexical relations (Heinz 1993: 111).

The annual editions of the Petit Robert[6] offer a snapshot of the current state of the French language. Each entry in the PR summarizes the progress made by research in language science (phonetics, etymology, semantics, philology, stylistics) over the centuries up to the present day. The tree-like presentation of each article, with etymological indications that incorporate the dating of meanings (Pruvost 2006: 69), gives an overview of the semantic evolution of the word over time.

The corpus of attestations in the Robert language dictionaries was found to be essentially literary, but obviously more up-to-date than in the TLFi since contemporary literature is included. However, few technical sources are used to attest the use of the language of Fine Arts in the GR, which, as an extensive dictionary, should contain a much richer variety of examples than the PR. When a few attestations from specialized texts do appear, they tend to be encyclopedic developments, as in the case of the *gravure* entry below (cf. Table 2). Although the GR is essentially a linguistic dictionary, it nonetheless exhibits some encyclopedic aspects (Veyrat 1995: 191).

---

6 A new edition is published every year.

Table 2: Attestations for specialist works of art in GR (2020).

Entrée	Citation GR	Source
colonne	2. Elles *(les âmes du moyen âge)* aspirent au gigantesque (. . .) amoncellent les colonnes en piliers monstrueux (. . .)	TAINE, *Philosophie de l'art*, I, II, VI, 4.
fresque	On appelle *peindre à fresque*, l'opération par laquelle on emploie des couleurs détrempées avec de l'eau, sur un enduit assez frais pour en être pénétré. En italien on exprime cette façon de peindre par ces mots *dipingere a fresco*, peindre à frais. C'est de là que s'est formée une dénomination qui, dans l'orthographe française, semble avoir moins de rapport avec l'opération, qu'avec le mot italien dont elle est empruntée.	WATELET, in *Encyclopédie* (DIDEROT), art. *Fresque* (1751).
gravure	*Gravure*. La gravure est un art qui s'en va, mais sa décadence n'est pas due seulement aux procédés mécaniques avec lesquels on la supplée, ni à la photographie, ni à la lithographie, genre qui est loin de la suppléer, mais plus facile et plus économique (. . .) La gravure est une véritable traduction, c'est-à-dire l'art de transporter une idée d'un art dans un autre (. . .) La langue étrangère du graveur (. . .) ne consiste pas seulement à imiter par le moyen de son art les effets de la peinture, qui est comme une autre langue. Il a, si l'on peut parler ainsi, sa langue à lui qui marque d'un cachet particulier ses ouvrages (. . .)	E. DELACROIX, *Journal*, 25 janv. 1857.

In comparison with the TLFi, students generally observed that the corpus of scholarly quotations collected in the GR seems less exhaustive in describing the field of Fine Arts. In terms of exemplification and phraseology, both PR and GR offered a good synopsis of the main collocations and idioms, but less exhaustive than the TLFi.

4.4 Text corpora: Frantext, frTenTen, LBC Français

After having been trained to consult the main French-language dictionaries, in the second part of the course students were tasked with exploring three corpora with very different characteristics, Frantext, frTenTen and LBC Français, to determine to what extent these corpora could provide new or additional information compared to the three dictionaries under consideration, particularly with regard to the description of the language of Fine Arts. Each student carried out searches for a word selected from the sample taken at the start of the experiment. What follows hereafter is a case report on the word *portail*.

A search of the entire Frantext corpus for the word *portail* yields 2,259 results. In most occurrences *portail* refers to a gate or the entrance to a non-religious house or building. The excerpts containing the word, the vast majority of which are literary texts, are mostly taken from novels in which a typically wrought-iron *portail* is men-

tioned as the entrance to a garden, park or house. The meaning of *portail* ('monumental entrance with a doorway to a religious building or church'), which is the architectural meaning according to the DAF (9ᵉ ed.), is found in very few occurrences. Further exploration of this corpus finally produced relevant examples containing specialized collocations (most commonly: *portail à triple rang de fenêtres gothiques* (portal with triple row of gothic windows), *portail à colonnes* (portal with columns), *portail à arceaux surbaissés* (portal with surbased archs), *portail à deux travées* (portal with two bays), *portail en ogive* (ogive-shaped portal) unattested in the three dictionaries consulted in the first part of our analysis. In Frantext, a predominantly literary corpus, there are, of course, no occurrences of *portail* as a form of Internet access (in the field of IT and telecommunications), which is, on the other hand, highly attested in the frTenTen17 corpus.

The frTenTen17 corpus, a web-derived corpus updated at regular intervals (on average every three years), contains a great deal of noise. The *word-sketch* launched on Sketch-Engine clearly shows that most of the *portail* attestations are of little relevance to the analysis carried out in this experiment. The student who analyzed this word found many attestations of *portail* with the general meaning 'automated/electric/remote-controlled/sliding gate', and in the IT domain the meaning 'multimedia/web/dimensional portal'. There are almost no occurrences in the artistic domain ('monumental entrance that includes a church door'). A more detailed and time-consuming exploration of this corpus reveals a few collocations from the field of architecture, albeit very limited in number, such as *portail nord* (northern portal), *grand portail* (great portal), *tympan du portail* (tympanum of the portal), etc. These collocations are already present in the Frantext corpus and attested in the three dictionaries.

Contrary to the other two corpora, the LBC Français corpus, a specialized French corpus in the field of the Arts, essentially contains occurrences relevant to this domain. In quantitative terms, even if the results for the word *portail* are much more limited in number (231 occurrences) compared to Frantext and especially frTenTen17, they are all pertinent and useful. In this specialized corpus, in addition to the collocations already found in other resources, we find many other specialized collocations for the word *portail*, such as *portail de la nef* (nave portal), *portail de la façade* (portal of the façade), etc., and expressions designating the various constituent parts of a portal in the architectural sense: *ébrasements du portail* (portal embrasures), *voussures du portail* (voussoirs of the portal), *pignon du portail* (portal gable), *archivoltes du portail* (portal archivolts), etc. In spite of its small size, in comparison with large reference corpora, the LBC Français corpus contains a great variety of text types, lexical types, registers and chronological periods, thus providing a comprehensive overview of the language of the Arts, particularly in the fields of painting, architecture and sculpture. In this respect, students observed that the quality of corpus results counts more than quantity, thus echoing O'Keffe et al. (2007) observations.

Table 3 summarizes the results that emerged from the comparison between dictionaries and corpora with regard to the points submitted to students for assessment.

Table 3: Results from the comparison between dictionaries and corpora.

Attention points submitted during the experiment	DAF	TLFi	GR-PR
Diachronic evolution of words	*Yes*	*Yes*	*No*
Updated account of changes in language and society (*headwords and definitions*)	*No*	*No*	*Yes*
Word sense disambiguation (*definitions*)	*Yes*	*Yes*	*Yes*
Specialized senses (*domain marks*)	*Yes*	*Yes*	*Yes*
Exemplification (*examples*)	*No*	*Yes*	*Yes/No*
Phraseology (*collocations and set phrases*)	*No*	*Yes*	*Yes/No*
Encyclopaedic/Cultural information (*examples and glosses*)	*No*	*Yes*	*Yes*
Electronic version	*Yes/No*	*Yes/No*	*Yes/No*

5 Conclusions: Final remarks on the dictionary and corpus consultation experiment

Evaluation of the dictionaries included in this experiment, the TLFi, DAF, GR and PR, showed that these language dictionaries contain the most relevant information to help understand the meaning, use and specialized domains of the words in the sample taken for analysis. After consulting the corpora, the students became even more aware of the fact that lexicographers have in fact selected relevant data to describe these words, presenting a structured synopsis that, whatever differences there may be between the dictionaries in question, is easy to consult.

The most useful information included in the dictionaries under consideration generally corresponds to the most frequent examples obtained through corpus queries. On the other hand, the corpora provided additional attestations, mainly relating to terminology specific to the field of architecture (extracted from the Frantext corpus and the LBC Français corpus in particular).

Exploring the three corpora to complete the descriptions offered by the dictionaries proves useful, although the intrinsic characteristics of these corpora, which are their constitutive limits, made locating information relating to the language of Arts laborious on a practical level, due in particular to: the over-representation of the literary genre in

the Frantext corpus; the disproportionate size (several billion words) of the frTenTen17 corpus, which meant that students had to sort out a huge amount of irrelevant information due to the polysemy of the words they were analyzing; and, finally, the lack of balance in the LBC Français corpus, which, while providing relevant data for the description of the artistic lexicon, is unreliable in terms of frequency and representativeness of attestations among the various text genres it contains.

These findings are based on the survey of the two groups of lexicography students from two different training courses in France and Italy. The students observed that corpus queries proved useful to a lesser extent, particularly with respect to frequency of use and in detecting the most recurrent collocations. They did not consider corpus data to be essential in comparison with the information given in general language dictionaries, suggesting that these corpora are not always suited to specific tasks. The students also noted that, while dictionaries contain fewer contextualized examples than corpora, these have been selected by lexicographers, experts who are skilled in performing fine-grained linguistic analysis. Moreover, raw corpus data can be opaque and difficult to interpret, as the most interesting collocations are found in extremely precise contexts and highly specialized texts or domains.

For the diachronic analysis of lexical evolution, monolingual French corpora which could be used to study differences in the French language over time and across different contexts of language use are not yet available (Beeching 2006). Projects are currently underway in long-term diachrony (Sorba et al. 2024), but these are mostly limited in scope, focusing on certain periods, e.g. medieval French (Lavrentiev/Guillot-Barbance 2024), or on certain aspects, such as the morpho-syntactic dimension of an early state of the language (Prévost et al. 2024). For pedagogical purposes, existing corpora for French cannot yet compete with scholarly dictionaries of the French tradition, which are the fruit of a continuing, collective, multi-generational analysis of the language in all of its dimensions, with special attention to methods of integrating special and technical vocabularies, carried out over the course of several centuries, as revealed in their extensive and enlightening prefaces. The corpora currently available, which were used in our experiment, have proven very useful for updating the description of contemporary language. This is the case with Frantext, a corpus that continues to grow and contains over 5,000 references from the 10th to the 21st centuries, even though the TLF is no longer updated.

Also, experience demonstrates that the most interesting data, as a complement to existing general dictionaries, can be found in texts written by specialists, namely art historians, art critics and artists, as well as specialized dictionaries. It was indeed surprising to discover that within the two corpora that proved most useful for our purpose, Frantext and LBC, there are lexicographic sub-corpora containing specialized dictionaries on art.

We have seen that this experiment focused on a specialized field of language, the lexicon of Fine Arts, and that the observations we have made would not necessarily be applicable to other fields and to general language use.

Following their assessment of the various resources, virtually all the French and Italian students did not consider it essential to explore corpora to supplement the information already found in the dictionaries. In fact, they were astonished to discover the wealth of information contained in the dictionaries. Both the French students, more technically competent at corpus exploration and data organization, and the Italian students, more accustomed to metalinguistic analysis, agreed that these corpora, no doubt useful for determining the frequency of specialized terms and detecting the most common collocations, were not always suited to the task.

In the anonymous questionnaires submitted at the end of the course, basing their observations on the results of this experiment, students expressed a preference for online dictionaries, underlining their added value at a time in history when their survival is under threat.

Since the origins of lexicography, the task of the lexicographer, a language specialist, has been to condense all the linguistic information needed to understand a multifaceted lexical unit into a single dictionary entry. Today, this meticulous analysis of linguistic data is left to a concordance user, who is not always adequately prepared or trained to perform this complex task.

Finally, can it be argued that a genuine (r)evolution in lexicography has taken place under the impetus of computational linguistics? We've seen from this teaching experiment that the detailed analysis provided by scholarly dictionaries is different in nature from corpus data, which cannot be considered satisfactory as a substitute.

Two final observations must be made, in connection with two of the proposals on lexicography presented at Villa Vigoni (Balbiani et al. 2018): n. 7, which stresses the prior importance of ensuring that corpora are freely available to researchers and designed to "mirror the entire linguistic diasystem" so that future work in digital lexicography can process and organize data generated automatically from corpora into a user-oriented format; and n. 14, which stresses the urgent need to teach critical use of the various resources (dictionaries and corpora) in language courses, and to emphasize these skills in teacher training too.

The role of dictionaries has always been central in language teaching. In the Internet era, analysis of currently used resources – not only online dictionaries, but also language resources in general – and subsequent discussion and reflection should play a key role in foreign language learning (Nied Curcio 2022).

We have also seen that the transformation of dictionaries into digital format, going beyond a simple change of medium, raises new questions (Molinari 2021). We have noticed, for example, that thanks to advances in electronic lexicography, the DAF is now a resource of prime importance for learning and using French, at the service of all speakers and learners (Catach 2019: 343).

At the end of the experiment, students stated that they had realized that their original preference for "free online data, without proof of reliability" was no longer valid, as they had acquired a critical awareness of the superior quality of traditional lexico-

graphic resources, thus confirming the fundamental importance of lexicographic training (Ruggia/Gaillat 2023).

We will conclude with one last question from the anonymous end-of-course questionnaires on teaching satisfaction, "what aspect of this course did you enjoy the most?" to which students responded: "learning to consult dictionaries". As in love, dictionaries too can become worthy of love only when one learns to know them truly in all their intricate complexity.

6 Bibliography

6.1 Monographs and articles

Atkins, B.T. Sue (1996): Bilingual Dictionaries: Past, Present and Future. In: Gellerstam, Martin/Järborg, Jerker/Malmgren, Sven-Göran/Norén, Kerstin/Rogström, Lena/Papmehl, Catalina Röjder (eds.): *Euralex'96 Proceedings*, Gothenburg: Gothenburg University, Department of Swedish, 515–590.

Atkins, B. T. Sue/Rundell, Michael (2014): Lexicographic training: An overview. In: Gouws, Rufus/Heid, Ulrich/Schweickard, Wolfgang/Wiegand, Herbert Ernst (eds.): *Supplementary Volume Dictionaries. An International Encyclopedia of Lexicography: Supplementary Volume: Recent Developments with Focus on Electronic and Computational Lexicography*. Berlin/Boston: De Gruyter Mouton, 569–574.

Auzeau, Fanny/Abiad, Laure (2018): Le corpus: un outil inductif pour l'enseignement-apprentissage de la grammaire, *Synergies France* 12, 175–187.

Balbiani, Laura/Gärtig-Bressan, Anne-Kathrin/Nied Curcio, Martina/Schierholz Stefan (2018): *Villa Vigoni's 15 Theses on Lexicography*.

Beeching, Kate (2006): Synchronic and diachronic variation: the how and why of sociolinguistic corpora. In: *Corpus linguistics around the world* 56, 49–61.

Bertels, Ann/Fairon, Cédrick/Tiedemann, Jörg/Verlinde, Serge (2009): Corpus parallèles et corpus ciblés au secours du dictionnaire de traduction. In: *Cahiers de lexicologie* 94:1, 199–219.

Bertels, Ann/Verlinde, Serge (2011): La lexicographie et l'analyse de corpus: nouvelles perspectives. In: *Meta: journal des traducteurs/Meta: Translators' Journal* 56:2, 247–265.

Billero, Riccardo/Nicolás Martínez, M. Carlota (2017): Nuove risorse per la ricerca del lessico del patrimonio culturale: corpora multilingue LBC. In: *CHIMERA Romance Corpora and Linguistic Studies* 4:2, 203–216.

Boulton, Alex (2007): Esprit de corpus: Promouvoir l'exploitation de corpus en apprentissage des langues. In: *Texte et corpus* 3, 37–46.

Cabré, Maria Teresa (2018): Terminologie et lexicographie: confrontation ou coopération? In: Altmanova, Jana/Centrella, Maria/Russo, Katherine E. (eds.): *Terminology & Discourse/Terminologie et discours*. Bern: Peter Lang, 27–38.

Catach, Laurent (2019): Le nouveau portail numérique du Dictionnaire de l'Académie française. In: *Les Cahiers du dictionnaire. Dictionnaire et figement. Hommage à Salah Mejri. Dictionnaires et encyclopédies. Hommage à Alain Rey*, 11, 337–364.

Catach, Laurent (2023): Quelques considérations et retours d'expérience sur les éditions numériques du *Dictionnaire de l'Académie française* et du *Dictionnaire de l'Académie nationale de médecine*. In: *Éla. Études de linguistique appliquée* 3, 211, 283–296.

Ciekanski, Maud (2014): Les corpus: de nouvelles perspectives pour l'apprentissage des langues en autonomie? In: *Recherches en didactique des langues et des cultures* 11:1.

de Schryver, Gilles-Maurice (2003): Lexicographers' Dreams in the Electronic-Dictionary Age. In: *International Journal of Lexicography* 16:2, 143–199.

Di Vito, Sonia (2013): L'utilisation des corpus dans l'analyse linguistique et dans l'apprentissage du FLE. In: *Linx* 68–69, 159–176.

Farina, Annick (2016): Le portail lexicographique du Lessico plurilingue dei Beni Culturali, outil pour le professionnel, instrument de divulgation du savoir patrimonial et atelier didactique. In: *Publif@rum* 25, [http://www.farum.it/publifarum/ezine_articles.php?art_id=335; last access: 26.04.2024].

Farina, Annick/Sini, Lorella (2020): Il Corpus LBC Francese. In: Billero, Riccardo/Farina, Annick/Nicolás Martínez, M. Carlota (eds.): *I Corpora LBC. Informatica Umanistica per il Lessico dei Beni Culturali*. Firenze: Firenze University Press, 77–99.

Forkl, Yves (2005): L'accès aux collocations dans le dictionnaire électronique: le cas du Trésor de la langue française informatisé (TLFi). In: Heinz, Michaela (ed.), *L'exemple lexicographique dans les dictionnaires français contemporains*. Tübingen: Niemeyer, 197–214.

Fuertes-Olivera, Pedro/Bergenholtz, Henning (2011) (eds.): e-*Lexicography. The Internet, Digital Initiatives and Lexicography*. London: Continuum.

Goes, Jan/Mangiante, Jean-Marc/Meneses-Lerín, Luis/Olmo Cazevieille, Françoise/Pineira-Tresmontant (2020): *Apports et limites des corpus numériques en analyse de discours et didactique des langues de spécialité*, Editura Universitaria.

Gouws, Rufus H. (2018): 9. Internet lexicography in the 21st century. In: Engelberg, Stefan/Kämper, Heidrun/Storjohann, Petra (eds.): *Wortschatz: Theorie, Empirie, Dokumentation*. Berlin/Boston: De Gruyter, 215–236.

Granger, Sylviane (2021): Phraséologie et lexicographie bilingue: Apports croisés des corpus monolingues et parallèles. In: Raluca, Nita/Hanote, Sylvie (eds.): *Opérations prédicatives et énonciatives, contrastivité et corpus*. Rennes: Presses universitaires de Rennes, 205–224.

Hanks, Patrick (2009): The Impact of Corpora on Dictionaries. In: Baker, Paul (ed.): *Contemporary Corpus Linguistics*. London: Continuum, 214–236.

Hausmann Franz Josef/Blumenthal Peter (2006): Presentation: collocations, corpus, dictionaires. In: *Langue francaise* 150, 3–13.

Heinz, Michaela (1993): *Les locutions figurées dans le « Petit Robert ». Description critique de leur traitement et propositions de normalisation.* Tübingen: Niemeyer.

Imbs, Paul (1971): Préface du *Trésor de la Langue Française*, tome I. Paris: CNRS.

Jakubíček, Miloš/Kilgarriff, Adam/Kovář, Vojtěch/Rychlý, Pavel/Suchomel, Vít (2013): The TenTen corpus family. In: *7th International Corpus Linguistics Conference CL*, July, 125–127.

Kilgariff, Adam (2013): Using corpora as data sources for dictionaries. In: *The Bloomsbury Companion to Lexicography*, ed. Jackson, Howard. London: Bloomsbury, 77–96.

Klosa-Kückelhaus, Annette/Michaelis, Frank (2022): The design of internet dictionaries. In: Jackson, Howard (ed.): *The Bloomsbury Handbook of Lexicography.* 2nd edn. London et al.: Bloomsbury, 205–221.

Landure, Corinne (2013): Corpus et dictionnaires: prise de conscience linguistique chez des apprenants Lansad. In: Tyne, Henry (ed.): *Bulletin Suisse de Linguistique Appliquée*, numéro spécial 97, 59–76.

Lavrentiev, Alexei/Guillot-Barbance, Céline (2024): La BFM 2022: un corpus pour les recherches diachroniques en français médiéval et au-delà. *Corpus* [En ligne], 25 [http://journals.openedition.org/corpus/8601; last access: 26.04.2024].

Lerat, Pierre (1995): *Les langues spécialisées*. Paris: Presses Universitaires de France.

Loock, Rudy (2016): *La traductologie de corpus*. Villeneuve D'Ascq: Presses universitaires du Septentrion.

Mel'čuk, Igor/Polguère, Alain (2018): Theory and Practice of Lexicographic Definition. In: *Journal of Cognitive Science* 19:4, 417–470.

Molinari, Chiara (2021): La lexicographie numérique: un nouvel outil pour l'enseignement du FLE?. In: *ELA. Études de linguistique appliquée* 201:1, 27–47.

Nied Curcio, Martina (2022): *L'uso del dizionario nell'insegnamento delle lingue straniere*. Roma: RomaTre Press.

O'Keffe, Anne/McCarthy, Michaeal/Carter, Ronald (2007): *From Corpora to Classroom*. Cambridge: Cambridge University Press.

Pierrel, Jean-Marie/Dendien, Jacques/Bernard, Pascale (2004): Le TLFi ou Trésor de la Langue Française informatisé. In: Williams, Geoffrey/Vessier, Sandra (eds.): *Proceedings of the 11th EURALEX International Congress*, Université de Bretagne-Sud, Faculté des lettres et des sciences humaines, 165–170.

Prcic, Tvrtko (2020): Teaching Lexicography as a University Course: Theoretical, Practical and Critical Considerations. In: *Lexikos* 30, 1–28.

Prévost, Sophie/Grobol, Loïc/Dehouck/Mathieu, Lavrentiev, Alexei/Heiden, Serge (2024): Profiterole: un corpus morpho-syntaxique et syntaxique de français médiéval. In: *Corpus*, 25 [http://journals. openedition.org/corpus/8538; DOI: https://doi.org/10.4000/corpus.8538].

Poudat, Cécile/Landragin, Frédéric (2017): *Explorer un corpus textuel. Méthodes – pratiques – outils*. Louvain-la-Neuve: De Boeck Supérieur.

Pruvost, Jean (2006): *Les dictionnaires français, outils d'une langue et d'une culture*. Paris: Ophrys.

Rees, Geraint (2022): Using corpora to write dictionaries. In: *The Routledge Handbook of Corpus Linguistics*, London, Routledge, 387–404.

Rey-Debove, Josette/Rey, Alain (1993): Préface à *Le nouveau Petit Robert, dictionnaire alphabétique et analogique de la langue française*. Paris: Le Robert.

Ruggia, Simona/Gaillat, Thomas (2023): Les corpus numériques pour la didactique des langues: de la formation des enseignants à l'élaboration de dispositifs d'apprentissage. *Corpus*, 24 [http://journals. openedition.org/corpus/8211; last access: 26.04.2024].

Rundell, Michael/Stock, Penny (1992): The corpus revolution. In: *English Today* 8, 21–32.

Sorba, Julie/Kraif, Olivier/Renwick, Adam/Denoyelle, Corinne (2024) (eds.): *La constitution de corpus en diachronie longue: méthodologies, objectifs et exploitations linguistiques et stylistiques*. In: *Corpus* 25 [http://journals.openedition.org/corpus/8461; last access: 26.04.2024].

Veyrat, Christel (1995): *L'intelligence du Petit Robert: anatomie d'un dictionnaire*. Montréal: Éditions Logiques.

Vicente, Christian (2010): Le rôle de la linguistique de corpus en traduction spécialisée: quelques notions de lexicologie pour l'enseignement de la notion de combinatoire aux apprentis traducteurs. In: *Cahiers du plurilinguisme européen*, Les cahiers du GEPE, July, Online since 01 janvier 2010 [https://www.ouvroir.fr/ cpe/index.php?id=234; last access: 26.04.2024].

Zanettin, Federico (2014): Corpora in Translation. In: House, Juliane (ed.): *Translation: A Multidisciplinary Approach*. London: Palgrave Macmillan, 178–199.

Zotti, Valeria (2008): I dizionari in Francia e in Italia: due tradizioni a confronto al servizio dell'apprendimento linguistico. In: Diglio, Carolina (ed.): *Lessicografia e metalessicografia francese e inglese oggi*. Fasano/Paris: Schena/Alain Baudry et Cie, 59–77.

Zotti, Valeria (2021): Les termes des arts dans les dictionnaires de la tradition française et dans les corpus de dernière génération: une relation d'inclusion réciproque? In: *Lexicography for Inclusion: Proceedings of the 19th EURALEX International Congress, 7–9 September 2021*, vol. 2. Alexandroupolis: Democritus University of Thrace, 683–691.

Zotti, Valeria (2023): Traduire en français le lexique du patrimoine de la ville de Bologne: le sous-corpus BER du projet LBC. In: Zotti, Valeria/Turci, Monica (eds.): *Nuove strategie per la traduzione del lessico artistico. Da Giorgio Vasari a un corpus plurilingue dei beni culturali*. Firenze: Firenze University Press, 197–229.

6.2 Dictionaries

Adeline, Jules (1884): *Lexique des termes d'art*. Paris: Quantin Imprimeur-Editeur.

DAF = *Dictionnaire de l'Académie Française*, 1ᵉ–9ᵉ édition: ww.dictionnaire-academie.fr.

Diderot, Denis/D'Alembert, Jean Le Rond (1751–1765): *L'Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers*. Paris: Briasson.

Félibien, André (1676–1690): *Des principes de l'architecture, de la sculpture, de la peinture, et des autres arts qui en dépendent. Avec un Dictionnaire des termes propres à chacun de ces arts*. Paris: J.-B. Coignard.

GR = *Le Grand Robert de la langue française. Dictionnaire alphabétique et analogique de la langue française de Paul Robert*, ed. Rey, Alain. 9 vol. Paris: Le Robert, 1984 [version électronique 2020].

PR = *Le nouveau Petit Robert. Dictionnaire alphabétique et analogique de la langue française*, ed. Rey, Alain/Rey-Debove, Josette. Paris: Le Robert, 2020 [version intégrale électronique 2020 disponible sur abonnement: https://www.lerobert.com/; last access: 26.04.2024].

Reverso Context = Reverso Context, The search engine for translations in context [https://context.reverso.net; last access: 26.04.2024].

Richelet, Pierre (1680).*Dictionnaire françois: contenant les mots et les choses, plusieurs nouvelles remarques sur la langue françoise, ses expressions propres, figurées et burlesques, la prononciation des mots les plus difficiles, le genre des noms, le régime des verbes. .* .Geneva: J.-H. Widerhold.

Robert, Paul (1978): *Dictionnaire Alphabétique et Analogique*. Paris: Le Robert.

TLF = *Trésor de la langue française. Dictionnaire de la langue du* xixᵉ *et* xxᵉ *siècle (1789–1960)*, 1971–1994, édité par Paul Imbs (vol. 1–10). Paris: CNRS, et par Bernard Quemada (vol. 11–16). Paris: Gallimard.

TLFi = *Trésor de la langue Française informatisé, ATILF (CNRS/Université de Lorraine)* [http://atilf.atilf.fr/tlf.htm; last access: 26.04.2024].

Viollet Le Duc, Eugène (1854–1868). *Dictionnaire raisonné de l'architecture française du XIᵉ au XVIᵉ siècle*. Paris: Bance éditeur.

6.3 Lexical and terminological databases

BDLP – Internationale (Base de Données Lexicographiques Panfrancophone [https://www.bdlp.org/; last access: 26.04.2024].

BDLP-Québec (Base de Données Lexicographiques Panfrancophone – Québec), Université Laval [https://www.bdlp.org/base/Qu%C3%A9bec; last access: 26.04.2024].

FranceTerme, Ministère de la Culture Française [https://www.culture.fr/franceterme; last access: 26.04.2024].

6.4 Corpora

Frantext, Atilf-CNRS, Université de Lorraine [https://www.frantext.fr/; last access: 26.04.2024].

French Web 2017 (*frTenTen17*) [https://www.sketchengine.eu/frtenten-french-corpus/; last access: 26.04.2024].

LBC French Corpus (*Lexicon of Cultural Heritage*), University of Florence [https://corpora.lessicobeniculturali.net/fr/; last access: 26.04.2024].

6.5 Software

DeepL [https://www.deepl.com/translator; last access: 20.04.2024].
Google Translation [https://translate.google.com/; last access: 20.04.2024].
SketchEngine concordancer tool, Lexical Computing CZ s. r. o. [https://www.sketchengine.eu/; last access: 20.04.2024].

Shigeru Yamada

The "super" instruction in the use of EFL dictionaries

Abstract: EFL dictionaries have been developing, incorporating the latest results of (applied) linguistics, balancing various factors (descriptivism vs. user-friendliness, etc.), and trying to meet the needs of the times for global EFL audiences. There have been innovative developments and features and also inevitable irreconcilables, inconsistencies, and errors. Going beyond the conventional teaching of dictionary use, the "super" instruction in the use of EFL dictionaries is intended to maximize the value of the dictionaries, remedying or overcoming the infelicities, conducted by the EFL teacher who shares the same background with the student. The instruction addresses such areas as grammar, definition in defining vocabulary, issues with frequency principles, fine differences, encyclopedic knowledge, pronunciation, and corrections. To support the non-native teacher, the involvement of native speakers is suggested. The super instruction is expected to eventually contribute to the improvement of dictionary content, giving feedback to the dictionary maker.

Keywords: dictionary use, EFL dictionary, presentation, reference skill, teaching

1 Introduction

The conventional teaching of dictionary use is supposed to fill the gap between the existing dictionary content and users' usually rudimentary reference skills. However, the teaching I would like to propose goes beyond this. The "super" instruction is intended to maximize the value of EFL dictionaries, making the riches of information even more valuable and accessible:
–   by compensating for or remedying some (inevitable) deficiencies and inconsistencies (the teacher finds) in the present dictionary presentation,
–   by providing deeper understanding of dictionary information,
–   for the specific areas of dictionary description and linguistic categories that the user group the teacher deals with is weak in,
–   in response to the specific problems the individual student experiences, and conducted by the teacher with the same linguistic and cultural background, sharing the same learning experience as the student.

Shigeru Yamada, Waseda University, shyamada@waseda.jp

As practical teaching points, I will deal with the following seven areas: Grammar, definition in defining vocabulary (DV), issues with frequency principles, fine differences, encyclopedic knowledge, pronunciation, and corrections. Finally, to achieve the stated objectives, I will suggest the involvement of native speakers to compensate for the inherent inadequacies of the non-native teacher.

2 Teaching points

This section deals with seven of the issues I felt merit special attention in the teaching of EFL dictionary use. They come from my own teaching experiences: teaching English, grammar, and how to use EFL dictionaries to Japanese students of English. Although all points are important, some may be more relevant for Japanese students than for those from other linguistic and cultural backgrounds.

2.1 Grammar

Dictionaries (including EFL ones) are essentially structured to focus on the description of words and phrases. Therefore, they are generally not good at dealing with grammatical categories of information comprehensively beyond individual entries, despite some conscious efforts being made. In addition to structure, the development of corpus linguistics and its extensive application to dictionary making have some bearing on lexicographic description of English. Also referring to the pursuit of user-friendliness, Rundell (2006: 741) summarizes the recent development of EFL dictionaries. I will introduce his astute observation here, though it concerns not only grammar but also other areas:

> More recently, the emphasis has shifted toward a simpler, surface-grammar model which – while sacrificing some of the delicacy of earlier systems – assumes very little grammatical knowledge on the part of users. . . . The economy of the older systems allows them [accounts of the syntactic properties] to encode every *possible* pattern for a given meaning, regardless of its frequency. . . . The current approach . . . emphasizes what is typical over what is possible, and uses corpus-derived examples to complement the user-friendly patterning information (Rundell 2006: 741, emphasis original).

Generally, grammar should be dealt with in language classes, and the gained grammatical knowledge should be applied to the use of EFL dictionaries. Although it is actually difficult to draw a line between grammatical points to be covered in general language classes and in the teaching of dictionary use, there seem to be some grammatical points which frequently appear in examples in the British-made dictionaries and the user needs to be familiar with. This section focuses on five such areas as extra grammatical knowledge which the instructor should teach to their students, so that they can truly understand examples and use them as models for production: End-focus/end-weight,

productive subjunctive/putative *should*, prepositional adverb, the subject of a nominal *-ing* clause, and concord.

2.1.1 End-focus/end-weight

To fully understand examples, the knowledge of end-focus and end-weight is essential:
–   **End-focus:** The new or most important idea or message in a piece of information should be placed towards the end, where in speech the nucleus of the tone unit normally falls. In <writing> and prepared <speech> . . . this principle can be applied not just to a single piece of information, but to a whole sentence containing many pieces of information. A sentence is generally more effective (especially in <writing>) if the main point is saved up to the end.
–   **End-weight:** The more 'weighty' part(s) of a sentence should be placed towards the end . . .. Otherwise, the sentence may sound awkward and unbalanced. The 'weight' of an element can be defined in terms of its length (i.e. the number of its syllables or words) (Leech/Svartvik 2002: 210–211).

There are many examples which seem to be affected by these principles. Since those example sentences are presented without any commentaries and are usually cut out of context, their true communicative values are lost on the user. For example, let us look at the examples illustrating the ditransitive use of *promise* in its entry in OALD:

> **promise something to somebody** *He promised the money to his grandchildren.*

> **promise somebody something** *He promised his grandchildren the money.* (Sense 1, **promise** *verb* in OALD)

Comparing the examples, the user will learn that the positions of indirect object and direct object can be switched around and that the indirect object is introduced by *to*, following the direct one. However, the user is left in the dark about when to use which pattern, without being aware of the principle of end-focus which can affect the choice. For another example, let us refer to LDOCE for **set/put something in motion** (cf. Figure 1.). Looking at the entry, the user will be puzzled over the discrepancy between the sentence pattern suggested in bold and that realized in the first example. The suggested pattern stipulates the following: *The Church voted to set the process allowing women to be priests in motion.* In this case, however, the postponement of the object is preferred because of the principle of end-weight.

   In addition to the above examples of di-transitive verbs (*promise*) and S+V+O+A (*set/put . . . in motion*), there are other constructions which can be affected by the principles of end-focus and end-weight, including the passive, S+V+O+C, phrasal verbs, etc. (Leech/Svartvik 2002: 222–223). It is not practically possible to attach a note to each and every relevant example. A realistic but less effective method will be to provide an

set/put something in motion

to start a process or series of events that will continue for some time

🔊 The Church voted to set in motion the process allowing women to be priests.

🔊 Once the house had been sold, Jane **set the wheels in motion** (=started the process) to find somewhere smaller to live.

Figure 1: set/put something in motion in LDOCE.[1]

article in the outside matter. A most viable solution will be an explicit instruction by the teacher, teaching end-focus and end-weight as "useful guiding principles" (ibid. 211), which can influence sentence structures and the student's choice of them.

It should also be noted that the following ways of presenting examples are misleading in that they can give the user the impression that the two consecutive constructions are interchangeable. They should be avoided or be provided with a note. At least, the teacher should remind the student that it is not exactly the case and that word order has reason and meaning:

He *spread* butter on the bread. = He *spread* the bread with butter. (Sense 6 **spread**, *verb* in MWALED)

*Sprinkle a few herbs **on** the pizza./Sprinkle the pizza **with** a few herbs.* (**sprinkle**, *verb* in CALD)

2.1.2 Productive subjunctive/putative *should*

As Quirk et al. (1985: 1012) explain that there are three choices of verb phrase types in a *that*-clause: indicative form, putative *should*, and mandative subjunctive, with reference to the following and other examples: It is essential that a meeting *be* convened this week:

The present [mandative] subjunctive is . . . used in *that*-clauses (esp. in AmE) after verbs, adjectives, or nouns that express a necessity, plan, or intention for the future. . . . In BrE, putative *should* with the infinitive is far more common. In both AmE and BrE, indicative forms are also occasionally used in this construction (Quirk et al. 1985: 1012).

Take **recommend** in CALD for example, all varieties are illustrated, but indiscriminately. Without explicit explanation, however, the differences of choices of verb (phrase) forms in the *that*-clauses will be inaccessible to the user:

[+ (that)] *The doctor recommended **(that)** I get more exercise.*
We recommend that this wine should be consumed within six months.
The report recommends that more resources be devoted to teaching four-year-olds.
For your safety, we recommend you keep your seat belt loosely fastened during the flight. (The last three in extra examples, **recommend** in CALD)

---

1 https://www.ldoceonline.com/dictionary/set-put-something-in-motion.

A further look at the entries of the relevant verbs and adjectives (suggested by Murphy [2009: 64][2]) in the five online EFL dictionaries reveals that the treatment of the verbs in *that*-clauses are inadequate and inconsistent in the entries of the individual words and in that of *should*, despite the conscious efforts by OALD and LDOCE. OALD juxtaposes the examples of mandative subjunctive and putative *should,* labeling the latter "British English also":

> **insist that.** . . *He insists that she come.*
> *(British English also) He insists that she should come.* (Sense 1, **insist** in OALD)

LDOCE provides usage notes at the verb entries as shown in Figure 2.

GRAMMAR: Patterns with insist
- You **insist on** something:
  She insists on her own bedroom.
- You **insist on doing** something:
  She insists on having her own bedroom.
- ✗ Don't say: She insists her own bedroom.
- In everyday English, you **insist that** someone **does** something:
  I insist that he waits.
- In formal English, you **insist that** someone **do** something, using the base form of the verb (=infinitive without 'to'):
  I insist that he wait.
- You use the base form of the verb when talking about the past:
  I insisted that he **wait**.
In everyday English, people also say:
  I insisted that he **waited**.
- You **insist that** someone **should do** something:
  They insisted that I should join them.
This pattern is often used in the past, when reporting what someone has insisted.

Figure 2: "Grammar: Patterns with insist," **insist** in LDOCE.[3]

Much fewer illustrative examples concern productive subjunctive or putative *should* than end-weight and/or end-fucus. In this sense, the treatment of the former is expected to be more manageable. However, rather than notes or articles, it will be the teacher's instruction including the kind of explanation offered by Quirk et al. (1985: 1012) that enables the student to discern the difference between declarative and subjunctive verbs and between obligational and putative *should,* and use the verb forms properly

---

2 Verbs: *demand, insist, propose, recommend,* and *suggest*; adjectives: *essential, imperative, important, necessary,* and *vital.*

3 https://www.ldoceonline.com/dictionary/insist.

and confidently. The instruction should also refer to the formation of negative verb phrases:

> With all verbs except BE, the verb phrase is made negative by placing *not* before the subjunctive form. In the case of *be*, *not* may be placed either before or after the verb, whereas with *were* it follows it (ibid. 156).

MWALED includes a relevant example:

> The source for my story *insisted that* I not reveal his/her name. (Sense 1, **insist** in MWALED)

Mandative subjunctive should be clearly distinguished from putative *should*. An attempt to treat putative *should* and mandative subjunctive in a single example is highly misleading in that it can inculcate in the student the wrong idea that *should* is optional:

> She *insisted that* I (should) go. (Sense 1, **insist** in MWALED)

> You can say **it is recommended that** someone **(should) do** something: It is recommended that everyone (should) take the test. ("Patterns with recommend (meaning 1)", **recommend**, in LDOCE)

The student should be warned about this, and presentation of this kind should be avoided, in favor of dealing with each in a separate example sentence with an appropriate regional label, as in the following examples:

> She insisted that I go. <AmE>

> She insisted that I should go. <BrE>

2.1.3 Prepositional adverb

The prepositional adverb is "a particle which is formally identical to or related to a preposition, and which often behaves like a preposition with ellipted complement" (Quirk et al. 1985: 713). Since the prepositional adverb is an elusive item, difficult for students to understand and for dictionaries to treat adequately, the students need elucidation. "By" in "stop by" is a case in point. LDOCE describes the phrasal verb as shown in Figure 3.

stop by (something) phrasal verb
to make a short visit to a place or a person's home, especially while you are going somewhere else
- 🔊 I'll stop by this evening.
- 🔊 Daniel stopped by the store on his way home.

Figure 3: stop by in LDOCE.[4]

---

4 https://www.ldoceonline.com/dictionary/stop-by.

The "by" in the first example is a prepositional adverb, while that in the second a preposition. The student will welcome examples contrasting a prepositional adverb with its corresponding preposition. If either happens to be missing in a dictionary entry, the teacher should provide it. S/he should also advise on the pronunciation: "Prepositional adverbs normally receive stress, whereas simple prepositions (especially monosyllables) normally do not" (ibid.).

2.1.4 Subject of a nominal *–ing* clause: Objective/possessive case

The subject of a nominal *-ing* clause can be shown in two ways:
–   The genitive case of nouns and the possessive form of pronouns (typical of formal style):
    Winston was surprised at ***his family's/their*** reacting so sharply. \<formal>
–   The uninflected form of nouns and the objective case of personal pronouns (more common in informal style):
    Winston was surprised at ***his family/them*** reacting so sharply. \<informal> (Leech/Svartvik 2002: 329)

The treatment in EFL dictionaries is not consistent. OALD tends to give both examples and labels the former "formal":

> **mind somebody/something doing something** *Do your parents mind you leaving home? (formal) Do your parents mind your leaving home?* (Sense 1, **mind**, *verb* in OALD)

However, there are inadequate treatments:
–   Objective and possessive cases are juxtaposed without being discriminated:
    Do you *mind* me/my sitting here? [=would you be bothered if I sat here?] (Sense 3a, **mind**, *verb* in MWALED)
–   Only objective cases are presented:
    [+ obj + -ing verb] *Do you mind me smoking?* (**mind** *verb* (BE ANNOYED) in CALD)

> I hope you don't mind me calling in like this, without an appointment. [VERB *noun verb-ing*] (Sense 1 VERB, **mind** in COBUILD)

> **mind somebody doing something** Don't your parents mind you staying out so late? (Sense 1, **mind**[2], *verb* in LDOCE)

The instructor should teach the difference between the cases and suggest the missing alternative with its relative formality.

2.1.5 Concord

There are some nouns that trouble students with the problems of concord. For example, a group noun *family* can be followed by either a singular verb (grammatical concord) or a plural one (notional concord):

> A new family **has** moved in across the street.
>
> (**Grammatical concord:** the basic grammatical rule says: singular subject + singular verb AND plural subject + plural verb)
>
> A new family **have** moved in across the street.
>
> (**Notional concord:** the verb (*have*) agrees with the idea of plural in the **group noun** (*family*) rather than the actual singular **form** of the noun.) (Leech/Svartvik 2002: 274)

The choice of the verb can be affected by how a noun is viewed, formality, communication modes, and the difference between British and American English:

> When the group is being considered as a single undivided body, the singular tends to be used, but it is often hard to see such a meaning distinction. Plural concord after a group noun is more frequent in informal speech than in formal writing. Also, plural concord is more characteristic of <BrE> than of <AmE>. (ibid.)

An investigation of the 15 group nouns suggested in Leech/Svartvik (ibid.)[5] reveals that their treatment by the five online EFL dictionaries is not adequate. Only exception is LDOCE,[6] which provides a note like below for **audience, board, committee, company, family, government, party, public,** and **staff**, as shown in Figure 4.

GRAMMAR: Singular or plural verb?
- **Audience** is usually followed by a singular verb:
  The audience **was** cheering and shouting.
- In British English, you can also use a plural verb:
  The audience **were** cheering and shouting.

Figure 4: "Grammar: Singular or plural verb?" **audience** in LDOCE.[7]

---

5 *Association, audience, board, commission, committee, company, family, council, crew, department, government, jury, party, public,* and *staff.*

6 MWALED gives usage notes at **family** and **staff** and a note at **government**, and OALD offers a usage note at **staff**.

7 https://www.ldoceonline.com/dictionary/audience.

Generally, the two possible verb forms are indicated by grammar labels and are sometimes illustrated without any discrimination, like the entry of **association** in CALD (cf. Figure 5).

Figure 5: association, *noun* (GROUP) in CALD.[8]

This being the case, the teacher should offer the general guidelines on singular/plural verb usage as cited from Leech/Svartvik (ibid.) above. Also, s/he should refer to the concord of person and how to indicate number, referring to examples like the following:

> She thanked the staff for their dedication and enthusiasm. *(Extra example,* **staff** *noun* (PEOPLE) in CALD)

> In *North American English* **staff** (senses 1 and 2) can only be singular: *a staff of ten* (but not ~~ten staff~~) (Grammar Point, **staff** in OALD)

> *10 staff were allocated to the task.* (Sense 3, **staff** in COBUILD)

2.2 Definition in defining vocabulary (DV)

The teacher should help their students to understand definitions properly and make efforts to ensure it happens. The use of a defining vocabulary does not guarantee all definitions are accessible. Rundell (1998: 319) admits "Inevitably, the high-frequency words that make up any DV list are often highly polysemous, and lexicographers have not always resisted the temptation to use such words in non-central or (worse) idiomatic meanings." In fact, "benefits" used to define *package* in the following definition, for example, is not used in its commonest sense: 'the pay and other benefits that somebody

---

8 https://dictionary.cambridge.org/dictionary/english/association.

gets from their employer' (Sense 4, **package** in OALD). Drawing the student's attention to such vocabulary items, the teacher should guide them to the proper understanding of a definition.

Iwasaki (1990) encourages students to find useful collocations and expressions from the definitions in EFL dictionaries to brush up on their production in English. The student will need help to use (part of) a definition for the model for production in two ways: identification and modification. The average student cannot be expected to distinguish between language and metalanguage and pick up useful expressions. The teacher should point to useful collocations (lexical or grammatical) while dealing with a definition, for example "appear in court" in the following definition:

[transitive] *(law)* to give or send somebody an official document, especially one that orders

them to appear in court (Sense 10, **serve** in OALD)

All major EFL dictionaries (except MWALED) have adopted a defining vocabulary, which assures students of ease of understanding. Unfortunately, however, there are sporadic unnatural English expressions in definitions. Examples from COBUILD include the following. To solve this problem, I ultimately argue for the abolition of DV (Yamada 2010: 162; 2017). In the meantime, the teacher should suggest the words in square brackets as replacements for the preceding underlined words for the student's proper vocabulary development and production (Yamada 2017):

Your **appendix** is a small closed tube inside your body which is attached to your digestive system [large intestine]. (Sense 1, **appendix** in COBUILD)

A **kebab** is pieces of meat or vegetables grilled on a long thin stick [skewer], or slices of grilled meat served in pitta bread. (**kebab** in COBUILD)

A **warthog** is a wild pig with two large teeth [tusks] that curve upwards at the sides of its mouth. Warthogs live in Africa. (**warthog** in COBUILD)

2.3 Issues with frequency principles

Corpus basis (accordingly, frequency principles) has been the norm in the compilation of EFL dictionaries since the mid-1990s. For all its advantages, it is not without drawbacks. Frequency-based entry structure is good in that senses are arranged in such a way that those with a high probability of being searched for receptive purposes are listed at or toward the top. However, there are cases in which related senses are scattered, inconveniencing the user:

Frequency ordering may cut off the semantic links between senses, in particular the interrelationship between the literal and metaphorical senses. Thus, within the organization of frequency, users may find it difficult to build up a logical relationship between senses (Yamada/Xu forthcoming: 122).

When this is the case, the teacher should make the student aware of the existence of a related sense, so that the related senses can be learned together (e.g., the 'time' and 'need' senses of **take**, entered at 4 and 34, respectively, in OALD).

Frequency-based sense arrangement may or may not follow the sense development of a word or a phrase, which may confuse the user. A quick look at the entries of **bedrock** and **out of one's depth** in the current five online EFL dictionaries reveals: 1) All arrange the figurative sense above the original one, except for CALD and MWALED (both **bedrock**) and OALD (**out of one's depth**); 2) These dictionaries arrange senses differently in the other entry: i.e., CALD and MWALED (both **out of one's depth**) and OALD (**bedrock**), presenting the metaphorical sense first and the original one next. This means that in terms of sense arrangement, sense development is sometimes upset, overridden by frequency.

It occasionally happens that the original sense, which may be helpful for vocabulary development, is not included because of its infrequency. Taking **linchpin** in LDOCE3 as an example, Yamada (2010: 156–157, 165) suggested that the etymology information can help to make up this deficit. The teacher can also recommend that the student try looking up native speakers' dictionaries (e.g., *Oxford Dictionary of English* [3rd ed., 2010]) and bilingual ones (e.g., *Genius English-Japanese Dictionary* [6th ed., 2023]) for a potentially missing original sense because these dictionaries tend to cover more senses.

Informed by corpora, EFL dictionaries include large numbers of set phrases. This is a welcome development in itself. However, there are cases where the meaning of an element in a phrase is not clear when this semantic knowledge is useful for the student's understanding and productive use of the phrase. For example, the meaning of *buck* in a phrase *pass the buck* in the sentence below is 'responsibility.' The instructor should teach this in dealing with the phrase as in this sentence: "Passing the buck like that is disrespectful ant irresponsible." (Sugita, Satoshi. 2021. *Business Communication in Action: New York Series, The Final Chapters Best Selection.* NHK Publishing. 100.). EFL dictionaries, other than OALD, treat **pass the buck** as a set phrase (along with **the buck stops here**) without dealing with the sense of *buck* separately. OALD deals with the 'responsibility' meaning at sense 5, treating the phrases in each of the examples. The student may be able to discover the meaning of *buck* in the following dictionary definitions, but it will be the teacher's responsibility to explicitly teach the meaning of *buck* in *pass the buck* or help the student to find the meaning by pointing to relevant (parts of) dictionaries:

> If you **pass the buck**, you refuse to accept responsibility for something, and say that someone else is responsible. (Sense 11, **to pass the buck** in COBUILD)

> to avoid a responsibility by giving it to someone else (**pass the buck** in MWALED)

Thanks to corpus information, EFL dictionaries tend to break down meanings finely into collocation-based senses and arrange them (and sometimes examples, too) in order of frequency. However, there are exceptions, while approaches differ with dictionaries.

Users' linguistic backgrounds can be a factor in determining the preferences of sense division. To the Japanese way of thinking, for example, the sense of *performance* (not by actors) might well be further divided, according to agents (human or not) and domains (academic, educational, business, economic, athletic, etc.). If we take sense 2 of **performance** in LDOCE for example, at least, the teacher can suggest this and should group related examples together in presenting them to their students, in the following way: academic/educational (sentences 1 and 6), business/economic (3 and 4), athletic (5), and either of the above (2) (cf. Figure 6).

per·form·ance /pəˈfɔːməns $ pərˈfɔːr-/ ●●● S2 W1 noun 🔊 🔊

1 [countable]
when someone performs a play or a piece of music
   performance of
      🔊 Their performance of Mozart's Concerto in E flat was finely controlled and dramatic.
      🔊 This evening's performance will begin at 8.00 pm.

2 [countable, uncountable] how well or badly a person, company etc does a particular job or activity
   🔊 Sean's performance at school has greatly improved.
   🔊 I was impressed by the team's performance.
   🔊 The country's economic performance so far this year has been good.
   🔊 Shareholders blamed him for the company's **poor performance**.
   🔊 her **disappointing performance** in the Olympics
   🔊 Exam results are used as **performance indicators** (=things that show how well something is done) for schools.

Figure 6: performance, *noun* in LDOCE.[9]

Corpus data analysis has enabled dictionaries to identify large numbers of collocations. EFL dictionaries, other than COBUILD, show important collocations in bold type within the examples as one of the ways to indicate collocations. However, there seem to be inconsistencies in rendering them in bold in examples. As far as OALD is concerned, **put somebody/something on the map** is treated as an idiom at **map**, but it does not appear in bold in the following example: *His entrepreneurship helped put Preston on the map as a thriving cotton manufacturing town* (**entrepreneurship** in OALD). A Full text search of "as we know it" on the app receives five hits. Only one of them comes with the phrase in bold: *The new rules could mean the end of football **as we know it*** (Sense 4, **know** in OALD). Another finding is that four include "the end of . . . as we know it," which makes one almost certain that this is an extended set phrase. The other three are:

The British press has gone bananas, proclaiming the end of civilization as we know it. (**go bananas**)
Could this be the end of civilization as we know it? (Sense 3, **civilization**)
These changes clearly signal the end of the welfare state as we know it. (Sense 3, **signal,** *verb*)

Checking with native speakers or against corpora, the teacher can suggest phrases like this for students to remember, let alone collocations that should be given in boldface.

2.4 Fine differences

There are many points of difficulties for students to understand in EFL dictionary texts. They include fine differences in grammar, semantics (nuances), pragmatics, etc. The teacher should ideally be able to help students in these areas.

Grammar is relatively manageable, compared with other aspects, but there are points of fine differences the non-native teacher finds too difficult to discern and provide satisfactory explanations about. For example, LDOCE treats the collocations of **concern** relatively well, providing an illustrative phrase for each preposition, where often collocations are just listed without being accompanied by sufficient examples. However, the LDOCE examples do not give useful clues for the student to distinguish between the prepositions and use the noun properly and confidently:

> **concern about/over/with**
> the rise of concern about the environment
> the growing concern over inflation
> concern with worsening law and order (Sense 1 a), **concern**, *noun* in LDOCE)

Also, unfortunately, EFL dictionaries fail to offer helpful guidance as to the difference between *plan on doing* and *plan to do*. For example, OALD just juxtapose these examples:

> [intransitive, transitive] to intend or expect to do something
> **plan on doing something** *We hadn't planned on going anywhere this evening.*
> **plan to do something** *She **originally planned** to be a doctor.* (Sense 2, **plan,** *verb* in OALD)

In this particular case, an English-Japanese dictionary helps: *Wisdom English-Japanese Dictionary* (4th ed., 2018) provides a note that *plan on doing* is more informal.

When it comes to semantics (subtle differences in meaning and nuances), it is usually above the non-native teacher. Although EFL dictionaries provide much more help than before, especially in the form of synonym essays, this is the area where the user needs help the most. MWALED exhibits many synonymous expressions in examples, introduced by the equal sign:

> They *strove* for success. = They *strove* to succeed. (**strive**)
> Feel free to *stop by* [=*drop by, drop in*] anytime. (**stop by**)

The paraphrases are certainly helpful, but the dictionary should go out of the way to distinguish them semantically and structurally and, importantly, make it clear which

expression is the most usual in what context of use, so that the student can use an expression properly and confidently.

The list does not stop here. What is the difference between *gain popularity* and *gain in popularity*, which are dealt with at sense 3 and as a phrasal verb, respectively, in OALD, for instance:

3   [transitive] **gain something** to gradually get more of something
      to gain popularity/acceptance
      gain in something[10]
      to get more of a particular quality
      His books have gained in popularity in recent years.

Ultimately, in order for EFL dictionaries to truly help the student in their productive use of English, they should not be bound by entries or parts of speech in the treatment of synonymous items. For example, COBUILD deals with the related verb and noun uses of **test** at senses 5 and 6, respectively:

5.   **VERB** `B2`
     If you **test** someone, you deliberately make things difficult for them in order to see how they react.
     She may be testing her mother to see how much she can take before she throws her out. [*VERB noun*]

6.   **COUNTABLE NOUN** [usually singular] `B2`
     If an event or situation is a **test of** a person or thing, it reveals their qualities or effectiveness.
     It is a commonplace fact that holidays are a major test of any relationship. [+ *of*]
     The test of any civilised society is how it treats its minorities.

The fine difference in meaning and use between these two should be clarified and taught to the student, so that they will become familiar with these verb and noun uses of *test*.

In the not-too-distant future, I would like to see much more extensive and thorough treatment of synonymous expressions in EFL dictionaries. In the meanwhile, the teacher should intervene, trying to fill the gaps in this important area, albeit very difficult. They can and should at least ask native speakers for advice on semantic discrimination and guidance on usage, and convey the information to their students. Leech/ Thomas (1987: F12) make a strong case for the importance of pragmatics:

---

10 CALD labels *gain in* as "UK" in the example: **gain in** UK *She's certainly gained in confidence over the last couple of years.* (**gain,** *verb* (GET) in CALD)

> Many linguists and language teachers would argue that the most serious cross-cultural misunder-
> standings occur at the level of speaker-meaning (i.e. pragmatics). If foreign learners make gram-
> matical errors, people may think they do not speak English very well, and make allowances for
> them. But if learners make pragmatic errors, they risk (as in the case of "Will you please sit down?")
> appearing impolite, unfriendly, or even aggressive. Conversely, some learners (e.g. some speakers
> of oriental languages) may make the mistake "of appearing over-polite, which in turn can cause
> embarrassment, or can even give an impression of sarcasm." (Leech/Thomas 1987: F12)

To save foreign students awkwardness like above, many efforts have been made to
incorporate pragmatic information in EFL dictionaries especially since LDOCE2 (1987),
which dealt with pragmatics with labels, notes, and articles (usage notes and Language
Notes). Some example sentences are attached with pragmatic warnings while others
are not. Let us take "irony" for example:

> *(ironic) 'Our dog got into the neighbour's garden again!' 'You'll be popular.'* (Sense 1,
> **popular** in OALD)
> *I don't appreciate being treated like a second-class citizen.* (Sense 2, **appreciate** in OALD)

With reference to unmarked, pragmatically loaded expressions like the last, the teacher
should point out to them as such, as necessary.

2.5 Encyclopedic knowledge

As mentioned in section 2.2, a vocabulary item in a specialized sense can crop up in a DV-con-
trolled definition. This is more often the case with examples. Encyclopedic knowledge can
be an important prerequisite to understanding examples properly. To help with the student,
the teacher needs to be reasonably well versed from British and American institutions and
culture to other areas of knowledge, such as follows (emphasis added to examples):

Politics:
vote something *We voted <u>Democrat</u> in the last election.*
*<u>The Senate</u> **voted overwhelmingly** to retain sanctions.* (Both, sense 1, **vote,** *verb* in
OALD)

Business:
They made <u>a **firm offer**</u> (=offered to pay a particular amount) on the house over the
weekend. (Sense 3, **firm,** *adjective* in LDOCE)

Culture:
'Would you be <u>my best man</u>?' 'I'd be honoured.' (**be/feel honoured (to do something),
feel** in OALD)

Sports (especially soccer):

<u>Juventus</u> managed two goals in the last ten minutes. (Sense 2, **manage** in LDOCE)

<u>Arsenal</u>[11] *dominated the first half of the match.*

<u>United</u> *completely dominated the first half of the game.* (Last two, sense 4, **dominate** in OALD)

Art/geography:

*The **main attraction** at <u>Giverny</u> is <u>Monet's garden</u>.* (Sense 1, **attraction** in OALD)

Food/drinks:

Fill the glass half full with beer and top it up with <u>lemonade</u>.[12] (Sense 1, **top up** in OALD)

2.6 Pronunciation

Now audio recordings are provided not only for headwords but also for some examples. Dictionaries offer phonetic notations to the former but no help for the latter. At least, the dictionary could include an outside-matter article dealing with the basic rule of the intonation with the location of the nucleus: "Normally, the nucleus is at the end of the tone unit; or to be more precise, on the last major-class word (noun, main verb, adjective, or adverb) in the tone unit" (Leech/Svartvik 2002: 206). It would be ideal if the article also refers to the important exceptions to the above rule with examples:

> But in other cases speakers shift the nucleus to an earlier part of the tone unit. They do this when you want to draw attention to an earlier part of the tone unit, usually to contrast it with something already mentioned, or understood in the context. For this reason, we call earlier placing of the nucleus **contrastive focus**. . . . [C]otrastive focus is signalled by a fall-rise tone . . . with a fall on the nucleus and a rise on the last stressed syllable in the tone unit (ibid. 206–207).

Not only should the teacher help the student to understand the general rules of intonation but also the suprasegmental features of individual examples. For instance, the teacher should be able to point out that *keep at it* and *I'm with you* do not keep to the basic rule (the nuclear stress being placed on the preposition in each), as suggested by Ogawa (2000: 118).

2.7 Corrections

Dictionaries are prone to inadvertent errors and infelicities. The teacher is responsible to detect and point them out to the student (and the publisher). Such things and ambiguities can occur in various categories from pronunciation, grammar to technical terminology.

---

11 A Full text search of "Arsenal" (Premiere League football team) in the OALD app returns 11 examples.
12 It should be taught that the resultant drink is called "shandy" in Britain and that lemonade is a lemon-flavored soda in Britain while it is a mixture of lemon juice, water, and sugar in the U. S.

Sporadic discrepancies between the phonetic transcription and the recorded sound have long been pointed out (Komuro et al. [2006: 68], etc.). Adhering to the policy of "provid[ing] learners with – where possible – a single pronunciation for each word" (Leicester [c. 2020]), OALD10 changed the notation of American diphthong from /oʊ/ to /əʊ/, which is identical to that of British English. Takahashi et al. (2021: 27–28) conducted an auditory investigation of the randomly selected 50 GOAT words, coming up with the discrepancy rate of 76% between transcriptions and recordings. They concluded "It is noteworthy … that the change has produced a gap between the phonemic representations and the audio recordings of most entries with this vowel; the gap can be confusing to users" (ibid. 27). CALD and LDOCE differentiate between British and American pronunciation while COBUILD and naturally MWALED show only /oʊ/. The teacher should teach the basic differences between British and American pronunciation and the transcription systems adopted in EFL dictionaries.

LDOCE deals with the adverbial, prepositional, and adjectival uses of *up* and *down* together in single entries. EFL dictionaries adopt different approaches to the grammatical treatment of *plus* and *given* (followed by a noun phrase or a *that*-clause). The teacher should take the student through the grammatical analysis of examples in the entries of these items. As for technical terminology, MWALED and OALD use "progressive tense" in the note to **sense** (verb):

> *not used in progressive tenses*: to understand or be aware of (something) without being told about it or having evidence that it is true (sense 1, **sense** *verb* in MWALED).

The teacher could provide tuition in the difference between "tense" and "aspect."

3 Involvement of native speakers

When the teacher cannot handle the student's questions concerning the use of an EFL dictionary, what should they do? They can refer to other reference works (within the same category or of other kinds) and resources. In general and as discussed above, the use of multiple sources will often prove to be helpful and worthwhile. Unfortunately, however, there is a limit to what non-native teachers can do in teaching a foreign language. As touched upon in 2.4, the involvement of native speakers of English (direct or indirect) will be beneficial in many ways. Non-native teachers consult with them for advice or the native teachers themselves can engage in English language teaching, using EFL dictionaries – ideally those native speakers with a linguistics background and some knowledge of the student's native language. Without the native speaker's intuition, non-native teachers will find it difficult to tell whether this example refers to 'like' or 'dislike', for example (cf. Figure 7).

have a thing about somebody/something

⭐ *(informal)* to have a strong like or dislike of somebody/something
in a way that seems strange or unreasonable

• *She has a thing about men with beards.*

Figure 7: have a thing about somebody/something in OALD.[13]

On the other hand, using their schematic knowledge, native speakers may be able to pinpoint the referent of the pronoun, suggest its possible range, or give helpful clues to understanding the examples below (emphasis added):

> *I only did <u>it</u> to bug my parents.* [*VERB noun*] (Sense 7, **bug** in COBUILD)
> *<u>It</u>'s something that's been bugging me a lot recently.* (Sense 2, **bug,** *verb* in OALD)
> *<u>It</u> landed **smack in the middle** of the carpet.* (Sense 1, **smack,** *adverb* in OALD)

This is not something that can be expected from non-native speakers, but the native speaker's suggestions and clues can provide the student with cultural insights into the English language.

As a hands-on practice for "6 Extracting relevant data" among Hartmann's seven components of the consultation process (Hartmann 2001: 90–92), my guide to the usage of OALD10 (Yamada 2020: 18) presented the following problems concerning the entry of **encroach** (Sense 1 in OALD10, cf. Figure 8):

– Problem 1: Analyze the definition into "semantic patterns."
– Problem 2: Match the examples with the semantic patterns.

The expected answers are as follows:

Problem 1: The definition can be analyzed into the following eight semantic patterns (cf. Figure 9):

1) to begin to affect someone's time
2) to begin to affect someone's rights
3) to begin to affect someone's personal life
4) to begin to affect [other things]
5) to use up too much of someone's time
6) to use up too much of someone's rights
7) to use up too much of someone's personal life
8) to use up too much of [other things]

---

13 https://www.oxfordlearnersdictionaries.com/definition/english/thing#thing_idmg_14.

encroach *verb*

🔊 /ɪnˈkrəʊtʃ/

🔊 /ɪnˈkrəʊtʃ/

(formal)

➕ Verb Forms

1 ⭐ [intransitive] **encroach (on/upon something)** *(disapproving)* to begin to affect or use up too much of somebody's time, rights, personal life, etc.

- *I won't encroach on your time any longer.*
- *He never allows work to encroach upon his family life.*
- *Gradually the negative feelings encroached into her work.*

Figure 8: Sense 1, **encroach** in OALD.[14]

to begin to affect
to use up too much of

somebody's time
somebody's rights
somebody's personal life
[other things]
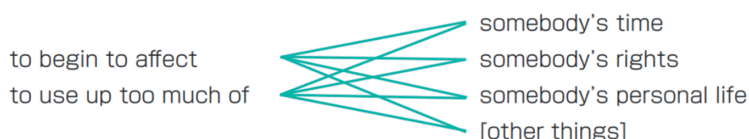
Figure 9: Eight semantic patterns of **encroach** in OALD10 (Yamada 2020: 19).[15]

Problem 2: Examples 1, 2, and 3 correspond to semantic patterns 5, 3, and 4, respectively.

Further to the above, Yamada (2022) provided these two expansion activities:

– EA1: Find examples from other dictionaries for the semantic patterns without examples.
– EA2: If you cannot find any appropriate examples, compose examples on your own.

For EA 1, example sentences from the other EFL dictionaries have been collected and classified according to the semantic patterns (cf. Table 1). Semantic patterns 1, 6, and 8 still remain without examples:

---

14 https://www.oxfordlearnersdictionaries.com/definition/english/encroach?q=encroach.
15 https://dic.obunsha.co.jp/oald10/dl_guide_book/OALD10_dic.pdf

Table 1: Eight semantic patterns of **encroach** in OALD and the corresponding examples from other dictionaries (Yamada 2022).

Semantic patterns	Corresponding examples
1 to begin to affect someone's time	
2 to begin to affect someone's rights	What the company is proposing encroaches on the rights of individuals. (CALD) Bureaucratic power has encroached upon the freedom of the individual. (LDOCE)
3 to begin to affect someone's personal life	I resent it that my job is starting to encroach on my family life. (CALD) He never allows work to encroach upon his family life. (OALD)
4 to begin to affect [other things]	The new institutions do not encroach on political power. (COBUILD) (The movie industry had chosen to ignore the encroaching competition of television. (COBUILD)) The federal government is encroaching on a state issue. (MED) He argues that the law would encroach on/upon states' authority. (MWALED) The new company is encroaching on their traditional market. (MWALED) Gradually the negative feelings encroached into her work. (OALD)
5 to use up too much of someone's time	I didn't want work to encroach any more on my spare time. (MED) I won't encroach on your time any longer. (OALD)
6 to use up too much of someone's rights	
7 to use up too much of someone's personal life	I knew that unless work encroached upon my family time, no work could get done. (COBUILD)
8 to use up too much of [other things]	

In doing EA 2, I asked an English-speaking colleague Professor Kate Elwood for help. She quickly and efficiently composed the following examples:

– His requests for help had begun to encroach on her weekends (for semantic pattern 1).
– The man's late-night parties encroached on the neighborhood's peace and quiet (6).
– Your question encroaches on a sensitive issue (8).

Furthermore, she made a valuable suggestion to revise semantic pattern 6 (adaptation of OALD definition: 'to use up too much of someone's rights') to 'to use too much of something that someone possesses as their right' (Elwood personal communication).

This method of overhauling definitions will work toward overcoming hidden weaknesses in dictionary definitions, making them closer to natural wording. Professor Elwood provided me with new insight and knowledge of English and EFL lexicography. This short collaborative effort has made me realize that native-speaker participation will make valuable contributions to the knowledge of EFL teachers and students and eventually to the improvement of dictionary content.

4 Conclusion

Tracing back through history, there were two usage notes in LDOCE2, which seemed to be intended for Japanese students of English, warning them against using "no" in the same way as they do in Japanese[16] or "please" on the basis of its Japanese equivalent.[17] Neither of the notes was kept in the third edition. With notes or within individual entries, EFL dictionaries cannot be expected to provide satisfactory answers to language- or culture-specific problems for all intended global audiences within their means. In online dictionaries and apps, outside-matter materials are difficult to locate or access, or they are not kept. Bilingualization offers only limited help. Ultimately, it is the language teacher who shares the same linguistic background and learning experience that can understand and respond to the needs arising from their students flexibly, attentively, and on the spot. The help of English-speaking teachers/informants should be enlisted to overcome non-native teachers' inadequacies in the linguistic and cultural knowledge of English. Of course, English-speaking teachers themselves can teach English to foreign students, using EFL dictionaries, but those teachers in turn have limitations, e.g., insufficient knowledge of the students' difficult learning points resulting from their native language. Complementing each other, non-native and native teachers should cooperate to make English language teaching with the use of EFL dictionaries better for students.

These suggested teaching practices, which are intended for students to better understand and exploit what EFL dictionaries have to offer, should be shared among teachers (cf. Yamada 2001: 122) and tried out on students. There should be other ideas and practices. Furthermore, relevant teaching points and examples should be reported to publishers so that they can make use of them to improve their dictionary presentation and content. Not only for students but also for dictionaries, it is to be hoped that the long-awaited teaching of dictionary use should be coming in the following spirit:

---

16 When answering questions, remember that your choice of "yes" or "no" depends on whether what you are going to say is positive or negative and not on whether or not you agree with the speaker (Usage Note 2 at **no**[2] in LDOCE2).

17 The Usage Note at **please**[2] in LDOCE2 goes: Note also that, unlike in some other languages, **please** is not used in English when offering things to people or when replying to thanks. Leech/Thomas (1987: F12) refers to the German and Japanese equivalents (*bitte* and *dozo*, respectively) in the front matter of the same dictionary.

The teaching of dictionary use is important not only because it aims at improving the way dictionaries are used, but also because it might turn out in the long run to be instrumental in the general progress of lexicography (Béjoint 1989: 212).

5 Bibliography

5.1 Academic literature

Béjoint, Henri (1989): The teaching of dictionary use: present state and future tasks. In: Hausmann, Franz Josef, et al. (eds.): *Wörterbücher/Dictionaries/Dictionnaires*, Part 1. Berlin/New York: De Gruyter, 208–215.

Hartmann, Reinhard (2001): *Teaching and researching lexicography*. Harlow: Pearson Education.

Iwasaki, Hirosada (1990): *Ei-ei jiten katsuyo manyuaru* [Manual on the effective use of English-English dictionaries]. Tokyo: Taishukan.

Komuro, Yuri, et al. (2006) An analysis of the *Oxford Advanced Learner's Dictionary of Current English, Seventh Edition*, with special reference to the CD-ROM. In: *Lexicon* 36, 55–146.

Leech, Geoffrey/Svartvik, Jan (2002): *A communicative grammar of English*. 3rd ed. Harlow: Pearson Education.

Leech, Geoffrey/Thomas, Jenny (1987): Pragmatics and the dictionary. In: *LDOCE2*, F12–13.

Leicester, Gary [c. 2020]: Pronunciation in the 10th edition of the *Oxford Advanced Learner's Dictionary.* Oxford: Oxford University Press, n. pag. [https://www.oxfordlearnersdictionaries.com/us/external/pdf/english/OALD10_phons_GL.pdf; last access: 31.03.2024].

Murphy, Raymond (2009): *Grammar in use intermediate*. 3rd edn. Cambridge: Cambridge University Press.

Ogawa, Naoki (2000): *Rikutsu de wakaru eigo no hatsuon* [Speak naturally: a guide to English rhythm and intonation]. Tokyo: NOVA.

Quirk, Randolph, et al. (1985): *A comprehensive grammar of the English language*. Harlow: Longman.

Rundell, Michael (1998): Recent trends in pedagogical lexicography. In: *International Journal of Lexicography* 11:4, 315–342.

Rundell, Michael (2006): Learners' dictionaries. In: Brown, Keith (ed.): *Elsevier encyclopedia of language and linguistics*. 2nd edn., vol. 6. Amsterdam: Elsevier, 739–743.

Takahashi, Rumi, et al. (2021): An analysis of *Oxford Advanced Learner's Dictionary of Current English, Tenth Edition.* In: *Lexicon* 51, 1–106.

Yamada, Shigeru (2001): The abilities needed for EFL dictionary use and how to teach them. In: Lee, Sungup (ed.): *Studies in Lexicography* 11:1, 113–125.

Yamada, Shigeru (2010): EFL dictionary revolution: innovations and drawbacks. In: Kernerman, Ilan J./Bogaards, Paul (eds.): *English learners' dictionaries at the DSNA 2009*. Tel Aviv: K Dictionaries, 147–168.

Yamada, Shigeru (2017): EFL dictionaries should treat meaning more properly. The 11th International Conference of the Asian Association for Lexicography. Guangdong University of Foreign Studies, Guangzhou, China. June 10–12, 2017.

Yamada, Shigeru (2020): *OALD10 katsuyo gaido* [Guide to the usage of OALD10]. Tokyo: Obunsha. [https://dic.obunsha.co.jp/oald10/dl_guide_book/OALD10_dic.pdf; last access: 31.03.2024].

Yamada, Shigeru (2022): Making the most of EFL dictionaries: Teaching dictionary use and dictionary usage guides. The 15th International Conference of Asian Association for Lexicography, June 18–19, Nanning, China (online).

Yamada, Shigeru/Hai, Xu (forthcoming): Learner's dictionaries. In: Edward, Finegan/Adams, Michael (eds.): *The Cambridge handbook of the dictionary*. Cambridge: Cambridge University Press, 109–130.

5.2 Dictionaries

5.2.1 Online dictionaries

CALD = *Cambridge Advanced Learner's Dictionary*. Ed. by McIntosh, Colin. Cambridge: Cambridge University Press [https://dictionary.cambridge.org/; last access: 31.03.2024].

COBUILD = *Collins Cobuild Advanced Learner's Dictionary*. Ed. by Sinclair, John. Glasgow: HarperCollins [https://www.collinsdictionary.com/; last access: 31.03.2024].

LDOCE = *Longman Dictionary of Contemporary English*. Ed. by DeLacroix, Laurence. Harlow: Pearson Education [https://www.ldoceonline.com/; last access: 31.03.2024].

MED = *Macmillan English Dictionary*. Ed. Rundell, Michael. London: Macmillan [closed in June 2023].

MWALED = *Merriam-Webster's Advanced Learner's English Dictionary*. Ed. by Perrault, Stephen. Springfield: Merriam-Webster's [https://www.britannica.com/dictionary/schematic; last access: 31.03.2024].

OALD = *Oxford Advanced Learner's Dictionary of Current English*. Ed. by Lea, Diana/Bradley, Jenniffer. Oxford: Oxford University Press [https://www.oxfordlearnersdictionaries.com/; last access: 31.03.2024].

5.2.2 Print dictionaries

Genius English-Japanese Dictionary. Ed. by Minamide, Kosei/Nakamura, Mitsuo. Tokyo: Taishukan. 6th edn, 2023 [1st edn. 1988 Komp. Tomoshichi Konishi].

LDOCE2 = *Longman Dictionary of Contemporary English*. Ed. by Summers, Della. Harlow: Longman, 2nd edn. 1987 [1st edn. 1978 Komp. Paul Procter].

LDOCE3 = *Longman Dictionary of Contemporary English*. Ed. by Summers, Della. Harlow: Longman, 3rd edn. 1995 [1st edn. 1978 Komp. Paul Procter].

OALD10 = *Oxford Advanced Learner's Dictionary of Current English*. Ed. by Lea, Diana/Bradley, Jenniffer. Oxford: Oxford University Press. 10th edn. 2020 [1st edn. 1942 Komp. A. S. Hornby].

Oxford Dictionary of English. Ed. by Stevenson, Angus. New York: Oxford University Press. 3rd edn. 2010 [1st edn. 1988 Komp. Judy Pearsall].

Wisdom English-Japanese Dictionary. Ed. by Inoue, Nagayuki/Akano, Ichiro. Tokyo: Sanseido. 4th edn. 2018 [1st edn. 2002. Komp. Nagayuki Inoue/Ichiro Akano].

Thomai Dalpanagioti

Integrating frame semantic resources in EFL instruction with a focus on deliberate metaphor

Abstract: This article explores the intersection between metaphor research, lexicography and language teaching/learning. It is motivated by the general recognition of the ubiquity of metaphor in language and the growing interest in building electronic repositories of figurative language, along with its inadequate representation in foreign language instructional materials. With a view to demonstrating how frame semantic resources (FrameNet and MetaNet) can be used for enhancing EFL learners' metaphorical competence, this article presents a typology of frame-based tasks for raising learners' awareness of deliberate metaphor. A number of tasks are designed along a continuum from receptive to productive and from controlled to open-ended ones in order to illustrate the potential of frame semantic resources to serve as flexible teaching/learning tools. Findings from using these tasks in a university EFL classroom show that frame-aided instruction can enhance learners' metaphorical competence as this is reflected in L2 written data and learners' own perceptions.

Keywords: FrameNet, MetaNet, Deliberate Metaphor Theory, metaphorical competence

1 Introduction

Metaphor research and lexicography have a bidirectional and mutually beneficial relationship. On the one hand, many authors (van der Meer 1999; Moon 2004; Geeraerts 2007; Adamska-Sałaciak 2008; Atkins/Rundell 2008; Kövecses/Csábi 2014; Ostermann 2015; Xu/Lou 2015; Dalpanagioti 2018, to name just a few) have explored the relevance of cognitive approaches to lexicography and, in particular, the Cognitive Theory of Metaphor and Metonymy (initiated by Lakoff/Johnson 1980) has informed learner's dictionaries like MED, which includes metaphor boxes. On the other hand, dictionary use has contributed to metaphor research, which has employed lexicographical (corpus) techniques to examine metaphors in discourse and relied on dictionaries to operationalize

Thomai Dalpanagioti, Aristotle University of Thessaloniki

metaphor identification procedures (like MIP/VU) with consistency and replicability (Deignan 2015).

The productive relationship between lexicography and cognitive linguistics has given rise to a new research direction, retrieving and annotating metaphors and metonymies in digital databases. Providing an overview of the trending topic of building electronic repositories of figurative language, Bolognesi/Despot (2019) describe the progress that has been made from the early metaphor-annotated datasets like the Master Metaphor List to the most recent digital resources like MetaNet, its sister Croatian Metaphor Repository (MetaNet.HR), the Córdoba Metonymy Database, the VisMet Corpus of Visual Metaphors, Metaphor Magnet and other web services for figurative language generation. This wide variety of resources illustrates the different faces of metaphor (conventional metaphor, which may even be invisible, and novel metaphor, which is creative and disruptive), the different levels at which metaphor can occur (language or image, thought and communication), and different methods of metaphor identification and analysis (manual vs. automated and top-down vs. bottom-up) that complement each other (ibid.).

Against this background, the present study adds one more facet to the interaction between lexicography and metaphor research and this is the user perspective in the context of foreign language teaching and learning. More precisely, the teaching/ learning goal the study focuses on is raising EFL learners' awareness of deliberate metaphor, i.e. metaphor used *as* metaphor in communication between language users (Steen 2017). This article reports on a classroom intervention that was theoretically informed by Frame Semantics and utilized frame-representational lexicographic resources, FrameNet and MetaNet, to enhance (upper intermediate/ advanced) EFL learners' productive metaphorical competence. After briefly discussing these lexicographic resources and the concepts of 'deliberate metaphor' and 'metaphorical competence', the article presents a typology of frame-based tasks for raising learners' awareness of deliberate metaphor. It then shifts focus from the teacher's to the learner's perspective and investigates the learning outcomes of the frame-aided instruction by examining the use of potentially deliberate metaphor in learners' essays and by exploring learners' perceptions regarding the lexicographic resources used.

2 Background: Frame semantic resources, deliberate metaphor and language learning

This section sets the background of the study, which brings together lexicography (FrameNet and MetaNet), metaphor research (Deliberate Metaphor Theory) and language learning (metaphorical competence). The aim of the study is to demonstrate how frame semantic resources can be used for designing tasks for raising EFL learners' awareness of deliberate metaphor, and whether such a frame-aided instruction can enhance learn-

ers' metaphorical competence as this is reflected in L2 written data and learners' own perceptions.

Using FrameNet and MetaNet, the study draws on Frame Semantics, a theory of meaning that "emphasizes the continuities between language and experience" (Petruck 1996: 1), as it is built on the idea that the meanings of words should be interpreted against common backgrounds of knowledge, the 'semantic frames' (Fillmore 1982). A frame consists of specific 'frame elements', which are the "various participants, props, and other conceptual roles" involved in the schematic representation of a situation (Fillmore/Petruck 2003: 359). The appeal of Frame Semantics is that it connects the conceptual and linguistic levels of knowledge representation. This is done in practice in lexicographic resources like FrameNet and MetaNet. In the Berkeley FrameNet project frames, frame elements and frame-to-frame relations are described, frame-evoking lexical units are identified,[1] and corpus-derived sentences are annotated in terms of frame elements, phrase types, and grammatical functions (Ruppenhofer et al. 2016: 7–8). In the MetaNet project lexical units are associated with frames, which in turn are associated with conceptual metaphors, and linguistic metaphors are thus modelled as frame-to-frame mappings. MetaNet consists of a hierarchically-organized conceptual metaphor repository and a metaphor identification system that detects, categorizes, and analyzes expressions of metaphor in large-scale text corpora (David/Matlock 2018). As Stickles et al. (2016) note, MetaNet "owes much to the instantiation of Frame Semantics in FrameNet", yet MetaNet frames are not based directly on FrameNet frames but are developed in the process of metaphor analysis (p. 172).

The present study uses both FrameNet and MetaNet (the MetaNet Metaphor Wiki) not only because they are interrelated and available online, but also in order to overcome coverage limitations and add variety to the activities and the skills developed. For example, the MetaNet entry for the metaphor ADDRESSING SOCIAL PROBLEMS IS WAGING WAR (see Figure 1) provides the mappings between the frame elements, authentic illustrative examples and a graph with related metaphors. This information can assist metaphor understanding in a receptive activity concerning reading a text which systematically uses words related to war to talk about a social problem (e.g. poverty, climate change, cancer, etc.). However, in a productive activity that encourages finding a different perspective and appropriating concepts and language through metaphor to communicate a message, what is useful is not a list of metaphors (or frames) but rather access to descriptions of frames to work with more creatively. This need is better served by FrameNet in a detailed and user-friendly manner, as illustrated by Figure 2 which provides part of the description of the Travel frame. This frame involves a TRAVELER that moves from a SOURCE to a GOAL along a PATH, and is evoked by LUs such as *journey*, *trip*, *odyssey*, *pilgrimage*. The frame elements are highlighted in different colors in the frame definition and in the example sentences. The Travel frame inherits from the

---

1 The lexical unit (LU, i.e. word in one of its senses) is the basic unit of description.
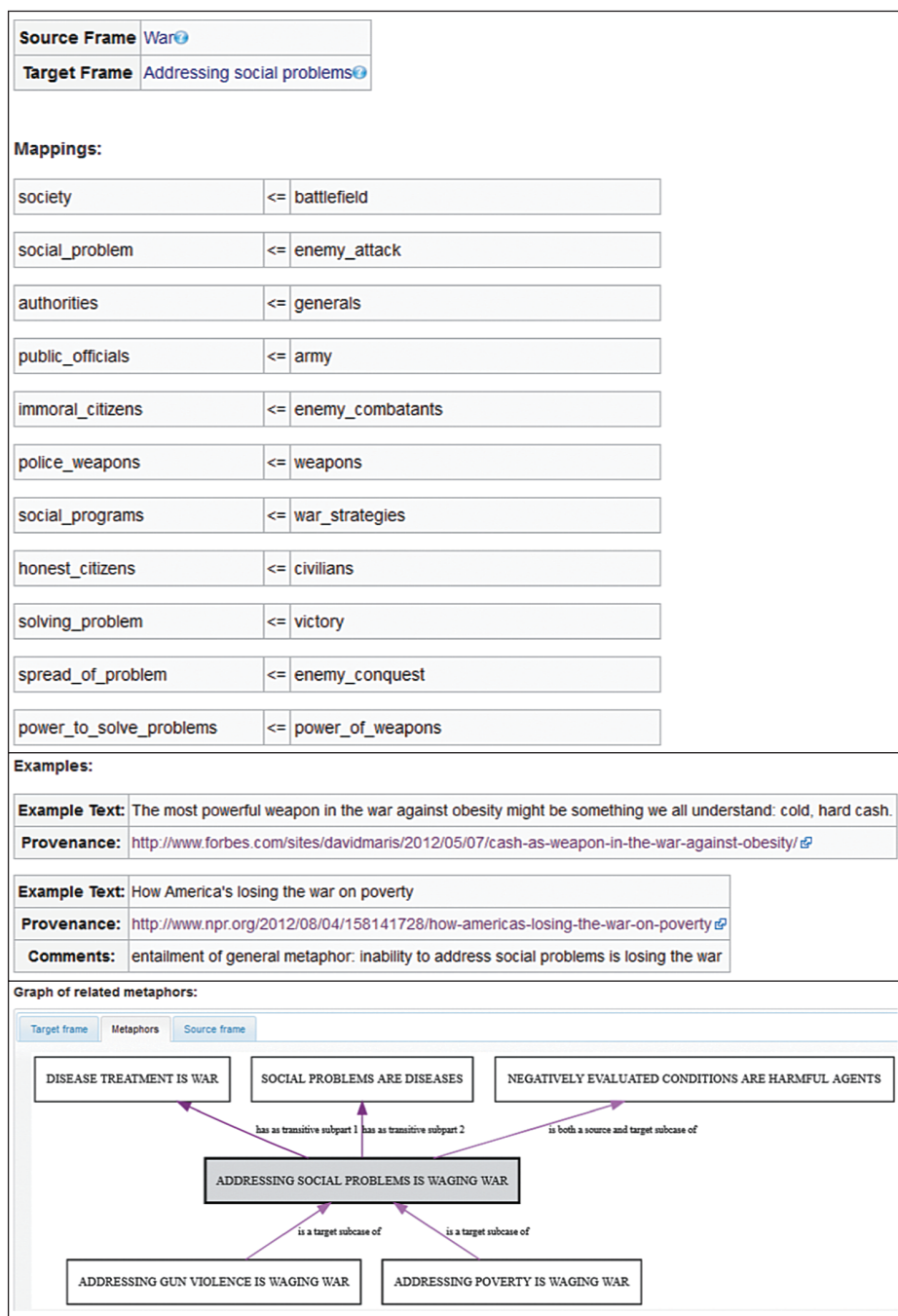
Figure 1: The MetaNet entry for the metaphor ADDRESSING SOCIAL PROBLEMS IS WAGING WAR.

Travel

Definition:

In this frame a Traveler goes on a journey, an activity, generally planned in advance, in which the Traveler moves from a Source location to a Goal along a Path or within an Area. The journey can be accompanied by Co-participants and Baggage. The Duration or Distance of the journey, both generally long, may also be described as may be the Mode_of_transportation. Words in this frame emphasize the whole process of getting from one place to another, rather than profiling merely the beginning or the end of the journey.

Ellen JOURNEYED to Europe with five suitcases.

Samantha JOURNEYED 2500 miles with her family by sea to China.

The Osbournes *took* a TRIP from Beverly Hills to London on the Concorde.

Figure 2: Part of FrameNet's [Travel] frame description.

more general frame Self_motion and is inherited by the more specific frame Setting_out. These frames could be useful in activities which take account of metaphor research that calls for revisiting militaristic metaphors in more positive terms without evoking images of death, destruction and suffering (see e.g. Demjén/Semino 2017). On the whole, FrameNet and MetaNet have been chosen to supplement EFL instruction because their scope can go beyond conventionalized uses of words.

Relevant in this respect is Deliberate Metaphor Theory, which emphasizes metaphor analysis at three levels: linguistic, conceptual, and communicative (Steen 2008, 2017, 2023). Deliberate Metaphor Theory draws attention to "the intentional use of metaphors *as* metaphors between sender and addressee" (Steen 2017: 1). The central feature of deliberate metaphor is the prominence of the source domain in the interpretation of the metaphor, with the consequent creation of a new perspective on the target domain.[2] There are two complementary approaches to the identification of deliberate metaphor: the semiotic approach, which focuses on textual analysis, and the behavioural approach, which investigates the processing of metaphors through think-aloud protocols, interviews or experiments (Steen 2023). Deliberate metaphor not only has triggered much theoretical discussion about the concept of "deliberateness" and its implications (Di Biase-Dyson/Egg 2020), but it has also received attention from computational models like the Web service Metaphor Magnet, which exploits Web fragments to retrieve metaphors and uses algorithms for manipulating this knowledge in order to understand and generate novel deliberate metaphors (Bolognesi/Despot 2019: 8). In essence, Deliberate Metaphor Theory brings about a shift in research focus away from the unobtrusive metaphors in everyday language foregrounded by Conceptual Metaphor Theory (Lakoff/Johnson 1980) and a refocus on deliberately created, attention-drawing

---

2 In Cognitive Linguistics the terms 'domain' and 'frame' refer to the same theoretical construct, i.e. a concept or knowledge system; "frames combine to form domain matrices" (Croft 2009: 14).

metaphors typical of studies before Conceptual Metaphor Theory (Di Biase-Dyson/Egg 2020: 3). However, this time metaphors are not considered to be isolated instances of creative acts aiming at embellishing literal forms of expression, but rather they serve communicative functions in discourse.

Metaphor is relevant to language learning and metaphorical competence is a core ability for L2 learners, as it can contribute to all areas of communicative competence, including grammatical, textual, illocutionary, sociolinguistic, and strategic competence (Littlemore/Low 2006). Metaphorical competence generally refers to "the comprehension, awareness, and retention of metaphor in speaking, writing, reading and/or listening" (O'Reilly/Marsen 2021: 26). Although metaphor is a common phenomenon in everyday language and an intrinsic part of thought and communication, it is still not well represented in the Common European Framework of References for Languages (CEFR) or in textbooks (MacArthur 2017: 418; Nacey 2017: 510; Ahlgren/Golden/Magnusson 2021: 197). Finding ways to develop learners' metaphorical competence is still an open question and has stimulated the classroom intervention reported in this article. In designing and implementing tasks that enhance L2 metaphorical competence, we take account of previous studies that explore the use of online lexicographic tools for this purpose. For example, in the context of teaching Spanish as a foreign language Jódar-Sánchez (2019) outlines preliminary ideas on how FrameNet and MetaNet could be used in activities that ask learners to identify metaphors in example sentences and to discover frame element mappings between source and target frames. Similarly, Campoy-Cubillo/Esbrí-Blasco (2022) present dictionary-based tasks on figurative language following a cognitive-semantic approach; their tasks focus on idioms and use online dictionaries to promote students' learning of both and understanding of metaphorical language. Against this background, we set out to explore the pedagogical potential of frame semantic resources in enhancing EFL learners' metaphorical competence by proposing a more comprehensive framework for designing tasks and by shifting the focus beyond conventionalized metaphorical uses of individual lexical items and idioms.

3 Designing frame-based tasks for raising learners' awareness of deliberate metaphor

This section aims to bridge the gap between theory and practice by proposing a flexible framework for designing contextualized tasks that raise learners' awareness of deliberate metaphor. In the proposed frame-based tasks learners' attention is explicitly drawn to metaphorical language use in natural discourse, and frame semantic resources (FrameNet and MetaNet) play a key role in their design and implementation. To illustrate the potential of these resources for metaphor instruction, Table 1 provides sample tasks

that concern both receptive and productive language use and activate different learning processes ranging from bottom-up to top-down strategies in reading and from controlled to guided to free practice in writing.

The tasks were developed and implemented in a university EFL course for first-year students majoring in English. The course aimed at developing students' EFL skills through a focus on the descriptive/narrative genre. The students' level of proficiency in English was B2+/C1 (CEFR), as measured by the Oxford Placement Test, and they were familiar with online learner's dictionaries. They did not receive prior (decontextualized) training in the use of FrameNet or MetaNet, but rather the tools were introduced in the context of the tasks at hand. The tasks were part of a series of pilot lessons that integrated Frame Semantics with Task-Based Language Teaching in order to raise learners' awareness of not only the form and meaning of metaphors but also, most importantly, their use in discourse. Presenting details about the proposed frame-inspired task-based approach to metaphor teaching and learning lies outside the scope of this paper; for an overview see previous work (Dalpanagioti 2021; 2022; 2023), which justifies the compatibility of the two models combined, points out what each model can gain from this integration, provides illustrative lesson plans, and presents preliminary findings about the effectiveness of the approach. What this paper focuses on is the central role of the frame semantic resources in this approach. This is demonstrated through the sample tasks in Table 1, which have been taken from different teaching units on topics such as life stories, film/book reviews, experiences of illness and disease, natural disasters, iconic monuments, and climate change.

Starting with the receptive tasks, they involve learners in the close deliberate study of short texts (intensive reading) and aim to stimulate 'noticing', the first cognitive process encouraging learning (Nation 2013). Tasks (a)–(d) provide extracts from web articles[3] and call learners to notice that they pivot on potentially deliberate metaphor at the levels of language, thought, and communication. Following a bottom-up procedure, in tasks (a)–(b) learners need to focus on the highlighted words in the texts and identify the frames they evoke in the particular context. There are variations on the way this can be done using FrameNet. We can ask learners either to first guess and then check their answers against frame definitions (task a) or to look up the words using FrameNet's search box and choose the most appropriate frame by comparing contextual clues to frame definitions (task b). In any case, learners become aware that words referring to physical motion or force are used metaphorically in the texts to refer to a hurricane (task a) or a movie (task b). MetaNet is then used to link the linguistic with the conceptual dimension of metaphor; once again learners may either first guess the underlying metaphor and then reinforce their answer by finding more examples in the relevant

---

3 The authentic L2 texts were checked for the level of proficiency they are suitable for by means of the Text Analyzer.

MetaNet entries (task a) or first read relevant metaphor entries and then relate them to the context at hand (task b). During this inductive procedure of identifying source and target frames, the teacher's role is to guide learners step by step and offer simplified information – e.g. about concepts such as 'frame' (a situation with specific participants) and 'mapping' (correspondence), the typical representation of metaphor (TARGET FRAME IS SOURCE FRAME), the components of the resources – gradually when it becomes necessary without overwhelming them with technical terms or details. At a discoursal level, learners are encouraged to notice the recurrent (and hence potentially deliberate) use of the same source frames for creating vivid images and textual cohesion.

A top-down procedure is used in tasks (c)–(d). Learners first get an overall picture of the metaphors underlying the texts at hand and consider the conceptual mappings between the elements of the source and target frames using MetaNet. Metaphor-related words are not highlighted in the texts, but rather learners are asked to trace them, thus seeing how metaphor in thought is expressed in language. What grabs learners' attention –and makes the tasks manageable– is the fact that several words in consecutive sentences activate the same source frame (person in task c and war in task d) to describe the same target frame (clock tower in task c and climate change in task d). Learners are guided to realize that the metaphor which runs through the whole text creates an effect at the level of communication; it builds an evocative image and makes the text more emotionally resonant.

Moving to productive tasks, learners get practice in retrieving metaphor-related words and phrases and gradually creating their own extended metaphors to express messages. Tasks (e)–(j) are organized along a continuum from those that involve a great deal of teacher control to those that involve more learner choice. For instance, (e)–(f) are completion activities which can serve as the first step towards bringing receptive metaphors into productive use. To find what is missing from existing, authentic texts, learners need to extend the use of a metaphor over consecutive clauses in task (e) or different parts of a longer text in task (f). Such language-focused learning activities typically provide a high degree of success to learners, who thus gain confidence in retrieving information (frame-evoking words and their usage patterns) from FrameNet and MetaNet.

Collaborative guided activities aim to bridge the gap between restricted and free, creative expression in L2 by opening up more options and search paths. For example, building on task (f), task (g) calls learners to work in pairs and use a different source frame to write a hopeful quote to inspire people who experience a chronic disease. Scaffolding takes various forms, such as interacting with peers, finding naturally-occurring texts to use as models, getting hints for metaphors, using FrameNet as a source of relevant lexical items (and corpus-derived examples) to choose from and use in context. However, as tasks become more open and student-directed, the limitations of frame semantic resources in terms of coverage become evident. For example, learners may not find MetaNet entries for metaphors they have in mind and wish to use in their text. This limitation, which is due to the ongoing nature of the project, serves as a spring-

board for designing a different type of guided activity which is illustrated by task (h). Building on task (d), which familiarized learners with the metaphor ADDRESSING SOCIAL PROBLEMS IS WAGING WAR at the textual and conceptual level, task (h) involves them in compiling an entry for another metaphor encountered in texts but not included in MetaNet.[4] Step-by-step instructions (e.g. deciding on frames, selecting authentic illustrative examples, identifying frame mappings) are provided to scaffold this inquiry-based learning activity that helps learners in how to work as writers to structure their texts on an extended metaphor.

Table 1 concludes with tasks that aim to increase the fluency with which learners can deliberately use metaphor to communicate a message. Tasks (i)–(j) involve learners in production of larger amounts of coherent text and more autonomous use of frame semantic resources. Learners may exploit conventional metaphors (task i) or employ a new perspective to revisit a conventional metaphor (task j); yet, in both cases attention is drawn to the communicative functions of deliberate metaphor such as reconceptualising a target phenomenon, highlighting/ hiding some of its aspects, and evoking feelings.

On the whole, frame semantic resources seem to be flexible tools that can be exploited in metaphor-related tasks in various ways to promote discovery learning and critical thinking. FrameNet and MetaNet have been integrated directly and explicitly, in a simple or more sophisticated manner, in a number of tasks organized along a continuum from receptive to productive and from controlled to open-ended ones. This continuum can be extended on both ends to cater for the needs and skills of different learners. At one end, in line with indirect Data-Driven Learning, teachers could use frame semantic resources implicitly to design similar (but simplified) metaphor-related tasks without asking learners to act as researchers. At the other end, tasks could become more challenging (and technical) by involving learners in more elaborate look-ups combining frame semantic resources and learner's dictionaries, onomasiological and semasiological trajectories. In an attempt to strike a balance, Table 1 has focused on integrating frame semantic resources in metaphor-related tasks that combine meaning-focused input, language-focused learning, meaning-focused output and fluency development (Nation 2013: 591).

---

4 Collaborative compilation of dictionary entries seems to be an emerging learning tool that can be used for promoting awareness of different aspects of language (see e.g. Caruso 2024).

Table 1: Receptive and productive metaphor-related tasks utilizing FrameNet and MetaNet.

Receptive tasks		
Bottom-up	**(a)**	**(b)**

(a)

We often think of and talk about a *weather event* as a *living being* that moves under its own direction and *attacks* places and people.

➢ Read the following extracts from news articles about Hurricane Irma and answer the following questions.

Hurricane Irma <u>hit</u> Florida after leaving a <u>trail</u> of destruction across the Caribbean. At least four deaths were reported in Florida after the storm's <u>arrival</u> on Sunday, adding to a death toll of at least 27 from its Caribbean <u>rampage</u>. More than three million people in Florida were without power, officials said on Sunday night. Officials along the Gulf Coast had believed they would be spared the worst of the <u>assault</u> until the storm's <u>trajectory</u> took an unfavorable westward <u>bounce</u> late in the week. After a Saturday spent hastily converting fortified buildings into shelters, they were hurrying the final preparations into place on Sunday. (. . .)
(Source: https://www.nytimes.com/2017/09/10/us/irma-florida-keys-gulf-coast.html)

a) Sort the highlighted words in two groups: the [Motion] group and the [Attack] group. Read about the [Motion] frame and the [Attack] frame in **FrameNet** and check your answer against the examples.

b) The words in the two groups are used metaphorically. Choose the most appropriate name for the two metaphors:

   i.   ACTION IS MOTION ALONG A PATH

   ii.   SAD IS DOWN

   iii.   NATURE IS AN AGENT

(b)

We often think of and talk about the powerful *effect* of movies as *physical force*.

➢ Read the following extract from a review of one of *The Lord of the Rings* movies and answer the following questions.

'The Lord of the Rings: The Fellowship of the Ring': Review
Visually <u>striking</u>, thematically grave, and morally <u>weighty</u>, Peter Jackson's *The Lord of the Rings: The Fellowship of the Ring*, is a miracle of a movie: a three-hour fantasy-action-adventure that not only faithfully <u>captures</u> the spirit of its respectable source material, the first in J.R.R. Tolkien's trilogy of books, but also stands <u>tall</u> on its own merits as one of most ambitious movies to have come out of Hollywood in a long time. Eagerly awaited by millions of fans around the globe, New Line's large-budget (more than $90m) fantasy is a must-see event movie, whose literary and cinematic qualities guarantee a strong theatrical <u>touch</u> in every territory, easily crossing age and national boundaries, before becoming a cult classic, subject to repeat viewing by the book's most ardent devotees.
Though necessary, the prologue, in which the history of the Ring is recounted in voice-over, is rather weak and overly long. However, as soon as the narrative proper begins, the yarn <u>grabs</u> the viewers with the <u>riveting</u> force of a mythic tale, seldom losing its <u>grip</u> even in its feeble moments.
(Source: https://www.screendaily.com/reviews/the-lord-of-the-rings-the-fellowship-of-the-ring-review/407695.article)

a) Look up the underlined words in **FrameNet**. What frame is activated by each word?

iv. SOCIETY IS A PERSON

v. EMOTION IS A FORCE

Read more examples of these metaphors in **MetaNet.**

c) Why are metaphors used in news articles?

b) What do these frames have in common?

c) Read the metaphors for control in **MetaNet**. Which ones best fit the text?

Top-down

(c)

We often think of and talk about *artifacts* (e.g. buildings, machines) as *living beings.*

➢ Read the text about Big Ben and answer the following questions.

Big Ben: A handsome London monument

I'm called Big Ben, and I'm one of the most handsome buildings in one of the greatest cities in the world. You might think I'm bragging – and I suppose I am – but I hope you'll indulge an old man. I'm 157 years old, after all. Perhaps that's not all that old as buildings go, but during my lifetime, I've certainly seen a lot happen on the streets of my city, often right at my feet. I've lived through some of London's most glorious times and some of its most terrible. But through it all, like the true Londoner that I am, I've stood tall, kept calm, and carried on.

(. . .)

Even if, as Churchill said, our conduct during World War II was our finest hour, there have been many times since then that have made me puff out my chest. For 157 years, I've seen her at her best and at her worst, and I plan to stand here watching over her for many more years to come!
(Source: https://curiousrambler.com/big-ben-a-handsome-london-monument)

a) Read about the MACHINES ARE PEOPLE metaphor in **MetaNet**. What do the machine, its hardware, software and functioning resemble?

(d)

When we think of and talk about a *social problem*, we often use words that have a connection with *war*.

➢ Read the following extract from a news article and answer the following questions.

A World at War

We're under attack from climate change – and our only hope is to mobilize like we did in WWII.

In the North this summer, a devastating offensive is underway. Enemy forces have seized huge swaths of territory; with each passing week, another 22,000 square miles of Arctic ice disappears. Experts dispatched to the battlefield in July saw little cause for hope, especially since this siege is one of the oldest fronts in the war. "In 30 years, the area has shrunk approximately by half," said a scientist who examined the onslaught. "There doesn't seem anything able to stop this."

(. . .)

World War III is well and truly underway. And we are losing.
It's not that global warming is like a world war. It is a world war. And we are losing. The question is, will we fight back? And if we do, can we actually defeat an enemy as powerful and inexorable as the laws of physics?
(Source: https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii)

a) Read about the ADDRESSING SOCIAL PROBLEMS IS WAGING WAR metaphor in **MetaNet**. What do global warming, physics, firestorms, droughts, floods, and mosquitoes resemble?

Table 1 (continued)

Receptive tasks

   b) Find words in the text that are used metaphorically to create the impression that the clock is a person. Use **MetaNet**'s mappings to group the words together according to the information they convey.

   c) Is personification used sparingly in the text or does it extend over the whole description? What is the effect created?

   b) Find words in the text that are used metaphorically to create the impression that climate change is a war. Use **FrameNet** to group the words together according to their meaning.

   c) Is war imagery used sparingly in the text or does it extend over the whole description of the situation? What is the effect created?

Productive tasks

Controlled

(e)

Matching and completing

Here are some comments posted by movie critics. Each critic uses a different frame metaphorically to express his/her view. Match each text with a frame and complete it with the missing word. Justify your answer using **FrameNet**.

Reviews	Frames
a) *Far From The Madding Crowd* It's a title to be admired, certainly, but for all its visual fireworks, *Far From The Madding Crowd* doesn't truly _____ an emotional spark.	– [Attaching] *tie*
b) *The Discovery* While the movie overdoes the plot twists and existential musings, *The Discovery* is a diverting head-trip whose reach far exceeds its _____.	– [Building] *build*
c) *Capernaum* If it doesn't _____ many (or any) of these thematic strands with a neat bow, that's in the nature of a film that chooses raw dramatic power over narrative finesse.	– [Manipulation] *grasp*

(f)

Gap filling

Read the text about a patient's experience with *cancer* and complete the gaps with words that have a connection with *war*. Use words from **MetaNet** (https://metaphor.icsi.berkeley.edu/pub/en/index.php/Frame:War) in the correct form.

War as a metaphor for cancer can be relieved of duty

Popular culture has long used war as a metaphor to describe the human experience of cancer. We are attacked by an (1) *enemy* (cancer) and expected to fight with the help of generals (doctors) and (2) _____ (other medical personnel) who counterattack with an arsenal of (3) _____.

   I don't think so. Cancer begins with a single mistake within our bodies; so why would I want to declare (4) _____ on myself?

   Yet everywhere we turn, we're told to keep up the fight until the (5) _____ is won, as if we can control the outcome. Like all good (6) _____, we're expected to take up arms, put up our shields and become strong, brave (7) _____, if not for ourselves, at least for our families and friends. And of course we're told never to surrender.

   If my cause of death is ultimately cancer, I've already told my husband that my obituary better not say, "After a long and valiant fight, Betsy lost her

d) *Color Out of Space*
A cheerfully lurid mess that goes goofily off the rails after a slow _____, and will offer few surprises for adepts of lovecraft or of screen schlock.
(Source: https://www.metacritic.com)

– [Setting_fire]
ignite

(8) _____ with cancer." It would really frost me if my life were defined by some sort of military campaign and my death implied that cancer had (9) _____ me.

The fact is, I never, not once, (10) _____ against cancer. Rather, I made a series of choices with the hope of extending my life. I often describe my cancer as a roller coaster with a series of twists and turns and ups and downs. Some have described their experience as a journey. Others have called it a match, a competition, a rough sail, a marathon, even a dance.
(Source: https://www.rogelcancercenter.org/living-with-cancer/sharing-hope/war-metaphor-cancer-can-be-relieved-duty)

Guided

(g)
Sentence/short text writing
Work in pairs and write a hopeful quote to inspire people who experience a chronic disease (such as cancer, heart disease, diabetes, arthritis, asthma). Work in the following way:

– Have a quick look at a website with hopeful quotes: https://www.rogelcancercenter.org/living-with-cancer/sharing-hope/hopeful-quotes. Notice the length of the quotes and the metaphorical language used.
– Decide on the metaphor you will use. To get some ideas, read the last paragraph of the previous text once again. Tip: use **FrameNet** to find words/phrases related to competition, motion, etc. to help you write your hopeful quote.

(h)
Compiling a metaphor entry
Work in pairs and prepare a **MetaNet** entry for a metaphor about climate change. Work in the following way:

– Read the **MetaNet** entry for the metaphor addressing social problems is waging war, which extends over the text "A World at War" we have already discussed. Notice the types of information included in the entry.
– Search the Internet to find out how climate change is metaphorically described in another news article (e.g. https://amp.theguardian.com/environment/2021/jun/30/climate-crisis-crime-fossil-fuels-environment).
– Create your MetaNet entry by including:
a) Source and Target frames
b) Example sentences from the text illustrating the metaphor
c) Mappings (correspondences between the Source and Target frames)

(continued)

Table 1 (continued)

Productive tasks	
Free	**(i)** **Reporting an experience** Work in groups and search information on the Internet about the 2004 Indian Ocean tsunami. Consider news reports and survivors' stories. Prepare a 10-minute report to present in class. Self-assessment criteria: – Did you notice that, like a hurricane, a tsunami is described as a living being that moves under its own direction and attacks places and people? – Did you use words from the [Motion] frame, the [Attack] frame and the [Cause_harm] frame in your report? Check **FrameNet**! – Do you think that your report is based on a metaphor? Can you find it in **MetaNet**?	**(j)** **Co-constructing a metaphor menu** Present your own alternative to the war metaphor for describing climate change. Instructions: – Work in groups. – Describe an aspect of climate change in a short news article (300–350 words). – Build your text on a metaphor. Use **FrameNet** to elaborate on the image you wish to create. – Prepare yourselves to present your text and to explain your metaphor in class. Well done! You have created a 'Metaphor Menu' for climate change that might help people understand, feel, evaluate and respond to this multi-faceted global issue.

4 Classroom implementation: Learning outcomes and perceptions

4.1 Learning outcomes: productive metaphorical competence

Teaching materials designed along these lines are expected to enhance learners' metaphorical competence. In order to investigate the learners' perspective in practice, we focus on one aspect of metaphorical competence, productive metaphorical competence, and investigate the use of potentially deliberate metaphor in learners' essays. In the context of the university EFL course described in section 3, we collected students' descriptive/narrative essays on the same topic at the end of two different semesters; one group of 20 students had received prior frame-aided instruction through the activities discussed in section 3, while the other group (of 20 students) had not. A corpus was thus compiled, consisting of 40 student texts written as an in-class exam, with no access to any kind of dictionary, in response to the prompt: "Write a story including the following words: *The once bustling city was eerily still and dark*. Give your story a title".

The tool used for identifying potentially deliberate metaphor in this learner corpus is the Deliberate Metaphor Identification Procedure (DMIP), a method for the systematic and reliable analysis of deliberate metaphor in language data (Reijnierse et al. 2018). DMIP is built on MIPVU (Metaphor Identification Procedure Vrije Universiteit), which is a step-by-step protocol for identifying metaphor-related words (MRWs) in discourse (Steen et al. 2010). In brief, the MIPVU-protocol requires the analyst to work in the following way: (1) to read the text to get a general understanding of the meaning; (2) to determine the lexical units (LUs) in the text;[5] (3) to establish contextual meaning for each LU; to establish a more basic contemporary meaning for each LU; to decide whether the contextual meaning is sufficiently distinct from and has some form of similarity to the basic meaning;[6] (4) if the response is affirmative, the LU is marked as metaphorical (MRW), and more precisely as "indirect" metaphor. The MIPVU-protocol differentiates "indirect" metaphor from "direct" metaphor. In the former case, the indirect use of a word "may potentially be explained by some form of cross-domain mapping from a more basic meaning of that word", while in the latter case "an underlying cross-domain mapping is triggered through 'direct' language use, where there is no contrast between the basic and contextual senses" but there is often an explicit signal (metaphor flag) such as *like*, *as*, *seem*, etc. (Steen et al. 2010: 25–26). After MRWs are identified by applying MIPVU, DMIP sets out to determine the communicative value of each MRW as either

---

5 The lexical unit (LU) is the unit of analysis in MIPVU and does not always correspond to the orthographic word; this is the case, for instance, for phrasal verbs and multiword expressions (see Steen et al. 2010: 26–32).

6 MIPVU prescribes the use of specific English learner's dictionaries for determining LUs and establishing contextual and basic meanings. LDOCE was used in the present study.

deliberate or non-deliberate cross-domain comparison by posing the question "Is the source domain of the MRW part of the referential meaning of the utterance in which the MRW is used?" If the answer is affirmative, the MRW is coded as potentially deliberate (Reijnierse et al. 2018: 136–137). The presence of the source domain in the referential meaning of an utterance can be determined by looking for co-textual cues that point, for example, to a direct metaphor, a novel (indirect) metaphor, an extended metaphor or a recurrent metaphor (Reijnierse et al. 2020). These types of potentially deliberate metaphor are discussed in this section in relation to extracts from the student texts provided in Table 2.

Table 2 aims to show the differences between the student texts produced without prior frame-aided instruction (ST1–20) and those produced with prior frame-aided instruction (ST21–40). It presents the properties of each individual text because the focus of the analysis is qualitative. Yet, what is striking from a quantitative perspective is the difference in the overall amount of metaphor (and potentially deliberate metaphor in particular) used in the two groups of student texts. Metaphor density – calculated as "the number of metaphors per total number of lexical units in the sample" (Nacey et al. 2019: 43) – is significantly higher in the second group of texts than in the first one.[7] Similarly, the number of potentially deliberate MRWs is considerably higher in the second group of texts; more precisely, out of 507 MRWs in ST21–40, 190 were identified as potentially deliberate (37.4%), whereas out of 269 MRWs in ST1–20, 37 were identified as potentially deliberate (13.7%). From a qualitative perspective, it is important to spot the differences in the types of potentially deliberate MRWs found in the two groups of texts. These are illustrated by means of sample extracts from each student text, where only potentially deliberate MRWs are marked using the following codes: indirect metaphor; direct metaphor; metaphor flag.[8]

The metaphor type observed most frequently in both groups of texts is the use of similes signalled by a metaphor flag (e.g. *like, as if, as, resemble, call, seem*). These are instances of direct metaphor; they form a deviation from the topic under discussion (most of the times, description of a city) and explicitly instruct the recipient to set up a cross-domain comparison between the referents of the words in the text. Because of the

---

[7] In the first group of student texts (ST1–20) the average metaphor density is 3.2%, ranging from a minimum of 1.2% to a maximum of 4.2%, with a standard deviation of 0.79%. In the second group of texts (ST21–40) the average metaphor density is 6.7%, ranging from 3.2% to 13.5%, with a standard deviation of 2.3%. If we compare these metaphor densities to figures reported in previous research for L1 English texts of similar genre – e.g. Steen et al. (2010: 195) report metaphor densities of 10.8% for fiction and 15.3% for news in the British National Corpus) – we realize the importance of metaphor-related instruction.

[8] In this small-scale study metaphor codings were provided by only one researcher, who is however a certified participant of the VU winter school *Finding Metaphors – The Pragglejaz Experience.*

sudden (and signalled) introduction of referents from an external source domain (e.g. rainbow, horror movie, hell, hive), these metaphors stand out as metaphors and can be seen as manifestations of potentially deliberate metaphor in language use. Following MIPVU (Steen et al. 2010: 57), all content words that are part of a topically incongruous stretch of text are marked as direct MRWs. We can thus notice that the source domain is used more elaborately in the second group of texts; for instance, this is evident when we compare the isolated references to a horror movie in ST4 and ST5 to the horror movie scenarios created in ST21 and ST29. An interesting case of direct metaphor is found in ST34, where an earthquake is referred to as a monster, but the topic shift (and cross-domain mapping) is not signalled with a metaphor flag.

While in the first group of texts potentially deliberate MRWs are almost exclusively direct metaphors, in the second one a number of indirect metaphors are also identified. In indirect metaphor a cross-domain mapping is not triggered through direct language use but through a contrast between the contextual and a more basic meaning of a word (Steen et al. 2010). In some cases, the contextual (target domain) meaning is not available in dictionaries and the MRWs are considered novel, and hence potentially deliberate, since they introduce a new perspective to the target domain. Consider, for example, *hive*, *bee*, *stinger* in ST31, ST37 and ST40; their contextual meaning (about citizens) is not conventionalised in dictionaries, yet is sufficiently distinct from their basic meaning (about bees) and the two meanings are related by comparison (i.e. we understand human behaviour in terms of bee behaviour). In most cases, however, there is a conventionalised target-domain meaning available in dictionaries, and the reason why indirect MRWs are considered potentially deliberate is that they form part of an extended metaphor; consider, for instance, the first sentence in ST32 and ST35, where the same source-target domain mapping stretches over two or more consecutive clauses. When words relating to the same source domain appear in different parts of the text (not necessarily consecutive clauses), there is a recurrent metaphor (Reijnierse et al. 2020: 30). This type of potentially deliberate metaphor is found only in the second group of texts (e.g. ST27, ST31, ST32, ST35, ST37, ST40).

On the whole, despite individual variations, there is a clear difference between the two groups of student texts. The use of potentially deliberate metaphor is both quantitatively and qualitatively restricted in the essays produced without prior frame-aided instruction. By contrast, the essays produced by the students who had attended the intervention programme exhibit a variety of potentially deliberate metaphors that make the description more vivid, grab the reader's attention and create textual cohesion. This is often evident even in the title of the text; consider, for example, the titles: "A journey like a movie" in ST21, "The invisible enemy" in ST32, "Europe's dead hive" in ST40. In half of the essays the title underscores the intentional nature of the comparisons and the deliberate use of metaphor as a discursive framework, providing more convincing evidence of learners' increased metaphorical competence.

Table 2: Potentially deliberate metaphor use in learners' essays.

Student Text	Number of LUs	Number of MRWs	Number of potentially deliberate MRWs	Sample extracts
Without prior frame-aided instruction				
ST1–20	8,330	269	37	
ST1	385	14	3	Our only option was to evacuate as soon as possible. It felt like a fever dream. [...] The buildings were not painted only with white and yellow, but also with light blue, pink, lilac and green. The city was similar to a rainbow in that matter.
ST2	412	13	0	–
ST3	365	9	0	–
ST4	453	16	6	People would go out every morning to shop, there were kids running and playing everywhere, families were taking long walks [...] It almost felt like a dream. [...] Idle halls, dead plants, dirty walls, cold and dark rooms. She felt as if she were a part of a horror movie.
ST5	427	15	6	From cold and cozy winters to warm and playful summers, everything seemed to have come out of an adventurous storybook. [...] The once dreamy factory looked like it had come out of a horror movie.
ST6	404	5	0	–
ST7	385	13	1	This mistrust between citizens led to grumpiness and rudeness being spread all over, like some kind of pandemic.
ST8	432	18	6	The view was spectacular! It was like the sun was trying to fill the city with its warm light. There were so many colours and voices.
ST9	426	15	0	–
ST10	510	11	2	He could not control his grip power or the way the objects he touched stuck to him, as if they had glue.

ST11	384	8	1	We knew how difficult and expensive of course it was to begin a new life, to turn this chaos into a, once again, colourful and beautiful painting, but we had to.
ST12	350	12	1	How did I manage to escape? I will be stereotypical and call it a miracle.
ST13	384	14	4	Welcome to "Capitalia", a once busy bee that transformed into a couch potato in a couple of days.
ST14	407	15	5	Soon some tents were brought to our island for those who had lost their homes completely. We were all feeling like we were in the middle of the ocean and our boat had crashed.
ST15	444	16	0	–
ST16	450	19	0	–
ST17	267	7	0	–
ST18	452	11	2	While everyone was asleep, the human-like entities managed to steal the diamond.
ST19	530	20	0	–
ST20	463	18	0	–
With prior frame-aided instruction				
ST21–40	7,531	507	190	
ST21	350	23	11	I started thinking like I really was in a horror movie and I should act like the protagonist without fear. [..] As that noise was coming closer and closer, I was thinking that, this was the time in horror movies that the protagonist was going to die.
ST22	413	25	6	There was once a beautiful, almost majestic city. It was called the city of light. [...] The factory was known to the people as the black sheep of the town.
ST23	430	19	3	Many cars were running through the opposite lane as if they had seen a ghost. [...] Many houses and public places were abandoned, which made the city look like a ghost town.
ST24	312	16	0	–

(continued)

Table 2 (continued)

Student Text	Number of LUs	Number of MRWs	Number of potentially deliberate MRWs	Sample extracts
ST25	347	11	7	They kept looking to find other people outside but they couldn't. "The earth seems to have swallowed them up" John said. "Like a black hole" Maria added.
ST26	474	28	13	The tsunami was bigger and stronger than they could have ever imagined. [. . .] It was almost like a giant was running back and forth in the city filling it with water and destroying it.
ST27	394	35	13	The place resembled hell more than earth. [. . .] It all felt like a punishment to those who survived. [. . .] To Bill, it felt like traveling to Ades. [. . .] He decided to write a book about war's ability to bring hell to earth in order to keep the memory of his city alive and to prevent this from happening again.
ST28	518	31	11	After almost a year of hiding and being scared, freedom was like a huge weight had been lifted off our shoulders.
ST29	341	27	15	But now the big city is creepy and dark. It looks like a horror film, expecting the bad guy to appear from the corner with a knife or a gun, threatening to kill. [. . .] This darkness makes you feel like you are in a haunted house, but with a slight difference. This is a city! You could easily imagine yourself starring in the horror movie in the city.
ST30	337	12	1	Happy voices and a lot of laughter were considered the "signature" of this specific city.
ST31	319	25	4	Amongst this buzzing crowd, two friends were heading to their work, vividly chatting and laughing. [. . .] Its residents had abandoned it for their own safety, but hoped they would soon return to give its life back. But for the moment, the once lively hive was violently silenced by the uncontrollable power of nature and its bees could not do anything to save it.
ST32	442	27	15	We were informed by our parents that a war broke out, not the usual one, with bombs and guns, but a new one, an invisible war, which was able to take everything from you yet in a different way. [. . .] Who would have thought that we would have been kept at home almost like a prison and have to get permission in order to get out for a stroll? [. . .] Doctors and nurses were our warriors trying to do anything to reduce the risks and dangers, but how can people fight an invisible enemy?

ST33	334	25	It [the city] was like a hive full of bees that was brutally destroyed by the rage of the weather. [. .] They were forced to vacate the city in order to avoid another deadly tsunami that could eat them alive like a huge hungry shark that hasn't eaten for days.
ST34	291	21	A disastrous earthquake happened and it was the biggest of the past few decades. The huge monster came one night and took down all the buildings and the houses, killing so many people and injuring other.
ST35	381	18	She [the city] was now a living ghost, an unfamiliar figure with no heart. [. . .] In a matter of months this hurt city is going to welcome her old lively self back.
ST36	321	31	The future of that winter seemed uncertain, like a shadow cast overhead. [. . .] A powder of fear and mistrust had fallen over the city and covered every roof. [. . .] It was a phantom of a city.
ST37	420	57	It was a hive for all young adults, and their buzzing was heard all throughout the country. Such popularity only brought devastation, sadly. Its citizens had a stinger of their own, leading to the highest crime rate across the country. [. . .] The city was in ruins, destroyed and deserted, similarly to the biblical cities of Sodom and Gomorrah. [. . .] We could feel the spirit of the city still lurking around us, as if guiding us through its graveyard. The bright, green parks had turned an ashy grey, needles scattered all around like tombstones. It was now clear to us the citizens had caused their own downfall, the drugs and crime digging their graves.
ST38	380	30	So she at last stood up and started walking towards her old enemy, though once best friend, the mirror. [. . .] That mirror represented a portal of time traveling and her so resentful past, full of mistakes and all the wrong moves.
ST39	403	24	Nowadays Blackville is considered a dead town. [. . .] It resembled a crime scene.
ST40	324	22	Famagusta's hive was constantly buzzing, full of working bees, who stayed in the city during the year, and "tourist" bees, who would visit occasionally to admire Famagusta's beauty. [. . .] The predators killed, tortured, raped and took captive lots of bees who either fought against them or just tried to flee. [. . .] Today, lots of bees dream to return to their homes in Famagusta and resume their lives, but they cannot.

4.2 Learners' perceptions

At the end of the course, the students who attended the frame-aided instruction were engaged in a follow-up focus group, where they shared their views about the metaphor-related tasks and the resources used. The students were split in four groups and each focus group session was conducted online via Zoom and lasted approximately 30 minutes. The discussion was structured in three parts: (a) awareness of the elements of a successful description/narrative, (b) preferences of tasks, and (c) reflections upon the use of FrameNet and MetaNet (advantages, disadvantages, suggestions).

In the first part of the discussion, the elements of a successful description/narrative that learners mentioned most frequently were narrative structure, wide variety of collocations and appropriate tenses, while they made special reference to the use of metaphor to connect diverse images, create a vivid effect and add coherence to their text. In the second part of the discussion, the students agreed that they liked most the tasks that involved them in pair or group work with a view to producing a text on an interesting topic (e.g. see tasks g and i in Table 1). On the other hand, they could not agree on a task that they particularly disliked, but some of them (7/20) reported not feeling comfortable with the attention to metalinguistic and metalexicographic knowledge in tasks like (h) in Table 1.

The third part of the discussion revealed learners' perceptions of the lexicographic resources they were introduced to. As expected, they reported that it was easier for them to use FrameNet and MetaNet in receptive rather than productive tasks. That is why tasks that worked well in all pilot lessons were those in which students used FrameNet to identify the frames evoked by several items in an authentic text and MetaNet to understand the metaphor that runs through the whole text (e.g. see tasks a–d in Table 1). Similarly, they enjoyed matching activities (like task e), while they sometimes struggled with gap-filling activities (like task f) because they felt the need to consult conventional dictionaries in addition to the frame semantic tools in order to find definitions and collocations. What was even more difficult for students was the more autonomous use of these tools in activities that involved them in production (e.g. see tasks g–j), but at the same time this is what they felt was really new and useful for improving their language skills. By way of illustration, some comments pointing out the usefulness of the resources to them are reproduced "as is" below.

– FrameNet helps us get ideas about the situation we wish to describe and find more relevant words.
– FrameNet categorizes, colours, structures the lesson and our thought process.
– I used FrameNet in a poetry course to understand the connection between two elements.
– MetaNet clarifies metaphor; I would use it outside classroom to organize my thoughts.
– MetaNet gives us food for thought; it can help us understand hidden meanings in texts and create new metaphors in our texts.

However, disadvantages were also reported and mainly concern difficulties in navigation and limited content. More precisely, they found the structure of the websites complicated, they could not always find the lexical items they needed in FrameNet, and they felt that it was not easy to work with MetaNet because there are few examples. Based on their (limited) experience with FrameNet and MetaNet, the students made some suggestions for their improvement as learning tools. Their suggestions point to the following considerations:

– creating a simplified learner-friendly interface (e.g. with instructions for users and tutorial videos)
– adding more content (e.g. more lexical items in FrameNet, more metaphors and usage examples in MetaNet)
– linking frame-semantic resources with conventional dictionaries (e.g. hyperlinks to English learner's dictionaries, and in particular the definitions, collocation boxes and usage examples)
– giving learners the opportunity to add their own entries to these resources (thus promoting learner involvement and autonomy).

On the whole, as a qualitative research tool, focus groups provide the opportunity to gather a variety of experiences and gain a better understanding of learners' attitudes. Enthusiastic voices were heard underlining the potential for teamwork, creativity, diversity and critical thinking, but some conservative responses were also expressed as a result of being overwhelmed by metaphor or the tools they were unfamiliar with. In any case, all students agreed that they became aware of a creative linguistic resource (deliberate metaphor) and two lexicographic resources (FrameNet and MetaNet), which they could use according to their own needs and desires.

5 Conclusion

The aim of this article was to integrate theoretical insights from metaphor research and relevant lexicographic resources into EFL teaching and learning. A number of frame-based tasks were presented along a continuum from receptive to productive and from controlled to open-ended ones in order to demonstrate how frame semantic resources (FrameNet and MetaNet) can be used for enhancing EFL learners' metaphorical competence. The tasks were implemented in a university EFL course in order to investigate their effectiveness. Findings were discussed based on (a) the comparative analysis of metaphor use in learners' essays produced with and without prior frame-aided instruction, and (b) the examination of learners' perceptions through focus groups. Both learners' performance in metaphor production and their attitudes provided overall positive feedback about frame-aided instruction.

This exploratory study can serve as a starting point for generating and implementing frame-based teaching materials for metaphor-related or other purposes. However, in designing tasks using FrameNet and MetaNet, a difficulty which is expected to be encountered is related to the coverage of these frame semantic tools. Both FrameNet and MetaNet are ongoing projects and, since there is yet no complete inventory of frames, frame-evoking lexical units, realization patterns, frame relations, metaphors, source-target frame mappings, examples, etc., we may not find all the information we need for a communicative task-based lesson. Furthermore, since these lexicographic tools are not primarily designed for foreign language teaching, they do not organize information in terms of criteria useful to lesson planning (e.g. level of proficiency, frequency).

Despite these limitations, the tasks presented in this study show that frame semantic resources are flexible tools that can be exploited in various ways to develop language awareness along with dictionary skills. Taking account of advanced learners' needs, we integrated FrameNet and MetaNet directly and explicitly in metaphor-related tasks promoting discovery learning and critical thinking. However, these online encyclopedic repositories of knowledge could also be used implicitly by teachers to inform their instructional practices and decisions without asking learners to act as researchers. Viewing frame-aided instruction in terms of a continuum, teachers could adapt the use of frame semantic resources to the level and needs of their students and plan the necessary scaffolding for learning. To reinforce the pedagogical potential of these resources, future research could explore ways of making them more accessible and attractive to both teachers and learners. For example, frame-evoking items could be linked to words and phrases in CEFR-informed reference sources like the English Vocabulary Profile, simplified versions of the original frame semantic resources could be created (e.g. similarly to the G-FOL project for learners of German), and a bank of tasks could be linked to frames and metaphors.

Data availability: Data will be made available on request.

6 Bibliography

6.1 Academic literature

Adamska-Sałaciak, Arleta (2008): Prepositions in dictionaries for foreign learners: A cognitive linguistic look. In: Bernal, Elisenda/DeCesaris, Janet (eds.): *Proceedings of the XIII EURALEX International Congress*. Barcelona: Universitat Pompeu Fabra, 1477–1485.

Ahlgren, Katrin/Golden, Anne/Magnusson, Ulrika (2021): Metaphor in education: A multilingual and Scandinavian perspective. In: *Metaphor and the social world* 11:2, 196–211.

Atkins, Sue/Rundell, Michael (2008): *The Oxford guide to practical lexicography*. New York: Oxford University Press.

Bolognesi, Marianna/Despot, Kristina (2019): Fantastic metaphors and where to find them. In: Bolognesi Marianna/Brdar Mario/Despot Kristina (eds.): Metaphor and metonymy in the digital age: Theory and methods for building repositories of figurative Language. Amsterdam: John Benjamins, 1–19.

Campoy-Cubillo, Mari Carmen/Esbrí-Blasco, Montserrat (2022): Pedagogical potential of online dictionaries in metaphor and idiom language instruction. In: *International journal of emerging technologies in learning* 17:21, 214–229.

Caruso, Valeria (2024): Between collocation and colligation: An experiment in collaborative lexicography. In: *International journal of lexicography* 37:1, 75–94.

Croft, William (2009): Connecting frames and constructions: A case study of 'eat' and 'feed'. In: *Constructions and frames* 1:1, 7–28.

Dalpanagioti, Thomai (2018): A frame-semantic approach to co-occurrence patterns: A lexicographic study of English and Greek motion verbs. In: *International journal of lexicography* 31:4, 420–451.

Dalpanagioti, Thomai (2021): A frame-inspired task-based approach to metaphor teaching. In: *Lexis* 18. Special Issue: Lexical learning and teaching.

Dalpanagioti, Thomai (2022): What frame semantics can offer to task-based language teaching. In: *TESOL Journal* 14:2, 1–13.

Dalpanagioti, Thomai (2023): Developing productive metaphoric competence through a frame-inspired task-based teaching model. In: *Crossroads. A journal of English studies* 43.

David, Oana/Matlock, Teenie (2018): Cross-linguistic automated detection of metaphors for poverty and cancer. In: *Language and cognition* 10:3, 467–493.

Deignan, Alice (2015): Figurative language and lexicography. In: Hanks, Patrick/de Schryver, Gilles-Maurice (eds.): *International handbook of modern lexis and lexicography*. Berlin: Springer, 1–15.

Demjén, Zsófia/Semino, Elena (2017): Using metaphor in healthcare: Physical health. In: Semino, Elena/Demjén, Zsófia (eds.): *The Routledge handbook of metaphor and language*. London: Routledge, 385–399.

Di Biase-Dyson, Camilla/Egg, Markus (2020): Drawing attention to metaphor. An introduction to the debate. In: Di Biase-Dyson, Camilla/Egg, Markus (eds.): *Drawing attention to metaphor*. Amsterdam: John Benjamins, 1–14.

Fillmore, Charles (1982): Frames semantics. In: The Linguistic Society of Korea (ed.): *Linguistics in the morning calm*. Seoul: Hanshin Publishing, 11–37.

Fillmore, Charles/Petruck, Miriam (2003): FrameNet glossary. In: *International journal of lexicography* 16:3, 359–361.

Geeraerts, Dirk (2007): Lexicography. In: Geeraerts, Dirk/Cuyckens, Hubert (eds.): *The Oxford handbook of cognitive linguistics*. Oxford: Oxford University Press, 1160–1174.

Jódar-Sánchez, José Antonio (2019): FrameNet as a resource to teach Spanish as a foreign language. In: Carrió-Pastor, María Luisa (ed.): *Teaching language and teaching literature in virtual environments*. Singapore: Springer, 121–149.

Kövecses, Zoltán/Csábi, Szilvia (2014): Lexicography and cognitive linguistics. In: *Spanish journal of applied linguistics* 27:1, 118–139.

Lakoff, George/Johnson, Mark (1980): *Metaphors we live by*. Chicago/London: The University of Chicago Press.

Littlemore, Jeannette/Low, Graham (2006): Metaphoric competence, second language learning, and communicative language ability. In: *Applied linguistics* 27:2, 268–294.

MacArthur, Fiona (2017): Using metaphor in the teaching of second/foreign languages. In: Semino, Elena/Demjén, Zsófia (eds.): *The Routledge handbook of metaphor and language*. London: Routledge, 413–425.

Meer, Geart van der (1999): Metaphors and dictionaries: The morass of meaning, or how to get two ideas for one. In: *International journal of lexicography* 12:3, 195–208.

Moon, Rosamund (2004): On specifying metaphor: An idea and its implementation. *International journal of lexicography* 17:2, 195–222.

Nacey, Susan (2017): Metaphor comprehension and production in a second language. In: Semino, Elena/ Demjén, Zsófia (eds.): *The Routledge handbook of metaphor and language*. London: Routledge, 503–516.

Nacey, Susan/Krennmayr, Tina/Dorst, Aletta/Reijnierse, Gudrun (2019): What the MIPVU protocol doesn't tell you (even though it mostly does). In: Nacey, Susan/Dorst, Krennmayr, Tina/Reijnierse, Gudrun (eds.): *Metaphor identification in multiple languages: MIPVU around the world*. Amsterdam: John Benjamins, 41–68.

Nation, Paul (2013): *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

O'Reilly, David/Marsen, Emma (2021): Eliciting and measuring L2 metaphoric competence: Three decades on from Low (1988). In: *Applied linguistics* 42:1, 24–59.

Ostermann, Carolin (2015): *Cognitive lexicography: A new approach to lexicography making use of cognitive semantics*. Berlin/Boston: De Gruyter.

Petruck, Miriam (1996): Frame semantics. In: Verschueren, Jef/Östman, Jan–Ola/Blommaert, Jan/ Bulcaen, Chris (eds.): *Handbook of pragmatics*. Philadelphia: John Benjamins, 1–13.

Reijnierse, Gudrun/Burgers, Christian/Krennmayr, Tina/Steen, Gerard (2018): DMIP: A method for identifying potentially deliberate metaphor in language use. In: *Corpus pragmatics* 2, 129–147.

Reijnierse, Gudrun/Burgers, Christian/Krennmayr, Tina/Steen, Gerard (2020): The role of co-text in the analysis of potentially deliberate metaphor. In: Di Biase-Dyson, Camilla/Egg, Markus (eds.): *Drawing attention to metaphor*. Amsterdam: John Benjamins, 15–38.

Ruppenhofer, Josef/Ellsworth, Michael/Petruck, Miriam/Johnson, Christopher/Baker, Collin/Scheffczyk, Jan (2016): *FrameNet II: Extended theory and practice* [https://framenet2.icsi.berkeley.edu/docs/r1.7/book.pdf; last access: 15.03.2024].

Steen, Gerard (2008): The paradox of metaphor: Why we need a three-dimensional model of metaphor. In: *Metaphor & symbol* 23:4, 213–241.

Steen, Gerard (2017): Deliberate Metaphor Theory: Basic assumptions, main tenets, urgent issues. In: *Intercultural pragmatics* 14:1, 1–24.

Steen, Gerard (2023): *Slowing metaphor down: Elaborating Deliberate Metaphor Theory*. Amsterdam: John Benjamins.

Steen, Gerard/Dorst, Aletta/Herrmann, Berenike/Kaal, Anna/Krennmayr, Tina/Pasma, Tryntje (2010): *A method for linguistic metaphor identification: From MIP to MIPVU*. Amsterdam: John Benjamins.

Stickles, Elise/David, Oana/Dodge, Ellen/Hong, Jisup (2016): Formalizing contemporary conceptual metaphor theory. In: *Constructions and frames* 8:2, 166–213.

Xu, Hai/Lou, Yue (2015): Treatment of the preposition *to* in English learners' dictionaries: A cognitive approach. In: *International journal of lexicography* 28:2, 207–231.

6.2 Dictionaries and other sources

Córdoba Metonymy Database [http://www.uco.es/investiga/grupos/lincogf/?q=home; last access: 19.04.2024].

English Vocabulary Profile [https://www.englishprofile.org/wordlists/evp; last access: 19.04.2024].

FrameNet [https://framenet.icsi.berkeley.edu; last access: 19.04.2024].

G-FOL = German Frame-semantic Online Lexicon [https://frames.coerll.utexas.edu/welcome; last access: 19.04.2024].

LDOCE = Longman Dictionary of Contemporary English Online [https://www.ldoceonline.com; last access: 19.04.2024].

Master Metaphor List. Ed. by Lakoff, George/Espenson, Jane/Goldberg, Adele. Berkeley, CA: Cognitive Linguistics Group, University of California, 1991.

MED = Macmillan English Dictionary for Advanced Learners. Ed. by Rundell, Michael/Fox, Gwyneth. Oxford: Macmillan Education, 2007.

MetaNet [https://metaphor.icsi.berkeley.edu/pub/en/index.php/MetaNet_Metaphor_Wiki; last access: 19.04.2024].

MetaNet.HR [http://ihjj.hr/metafore/en; last access: 19.04.2024].

Metaphor Magnet [https://afflatus.ucd.ie/node/6; last access: 19.04.2024].

Text Analyzer [http://www.roadtogrammar.com/textanalysis; last access: 19.04.2024].

VisMet Corpus of Visual Metaphors [http://www.vismet.org/VisMet/project.php; last access: 19.04.2024].

Index