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# 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 Autonomiestatut 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

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**Note:** English translations by the author are indicated in square brackets with the addition [TRANS].

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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).<sup>1</sup>

## 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%.<sup>2</sup> 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.

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<sup>1</sup> The article is largely based on Abel 2024, published in German.

<sup>2</sup> 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 competency 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<sup>3</sup> (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.<sup>4</sup> A summary of

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<sup>3</sup> The names of the intermediate levels are taken from the framework guidelines.

<sup>4</sup> 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).<sup>5</sup>

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,<sup>6</sup> 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,

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<sup>5</sup> 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.

<sup>6</sup> 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<sup>7</sup> 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).

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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)<sup>8</sup>
- “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)

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<sup>8</sup> 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<sup>9</sup> 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

<sup>9</sup> 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 effective 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.<sup>10</sup> 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%.<sup>11</sup> 41.33% teach German or Italian as L1, 29.52% as L2, and 21.96% are English teachers.<sup>12</sup>

<sup>10</sup> 0.55% stated “Other”.

<sup>11</sup> The rest is divided between “Diverse” and “I don’t want to specify”.

<sup>12</sup> The rest teach other subjects.

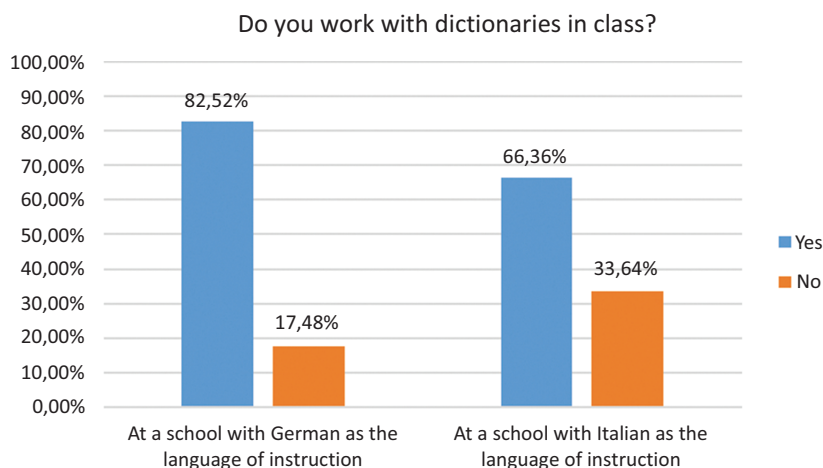
		Where do you teach?								Total	
		At a school with German as the language of instruction				At a school with Italian as the language of instruction					
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %		
At which school level do you teach?	primary school	181	42,2%	36	32,7%	1	33,3%	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.<sup>13</sup>

<sup>13</sup> 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).

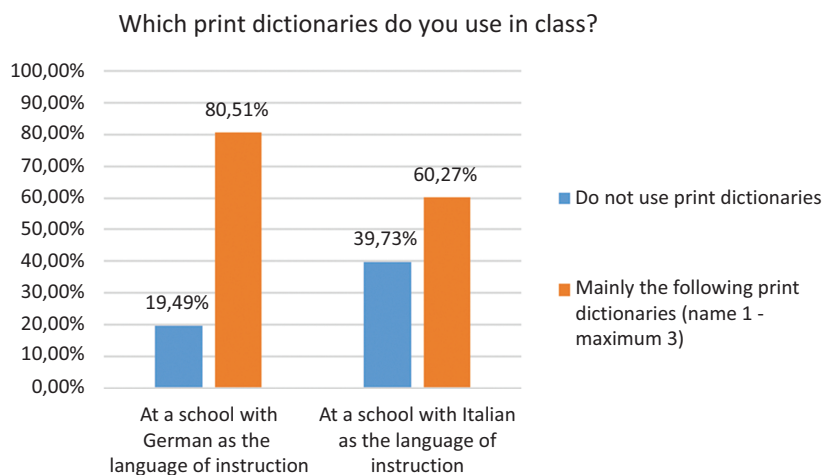
Close to 80% of respondents indicated their use of dictionaries in lessons. This implies that at least one in five teachers do not integrate dictionaries into their teaching. In German schools, 17.48% answered negatively, while in Italian schools the figure was 33.64% (see Figure 3). In both systems, 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.



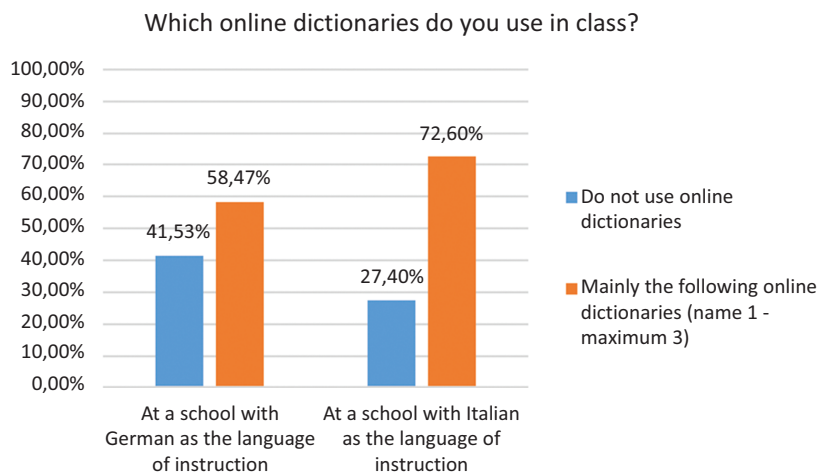
**Figure 3:** Dictionary work in the classroom.

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)

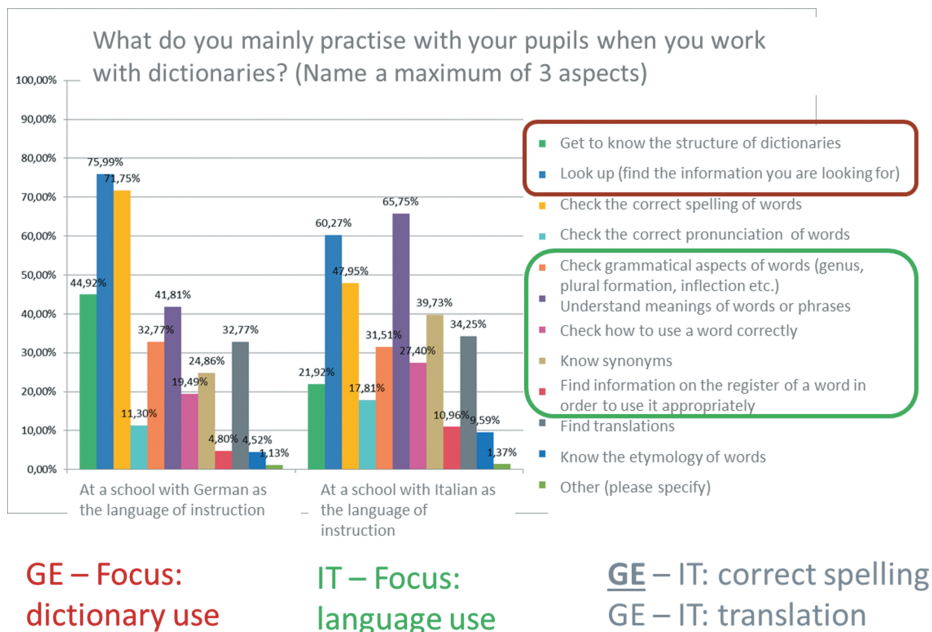


Figure 6: Focus of dictionary work in the classroom.

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 Egidio 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 (Egidio 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 familiarity 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. *ibid.*: 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/Neidhardt/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<sup>14</sup> 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).

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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.

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