

Zhiyong Li* and Yang Wang

Adopting online flipped teaching to improve learner engagement in an English for specific purposes (ESP) course in China: a mixed-methods study

<https://doi.org/10.1515/jccall-2023-0001>

Received January 1, 2023; accepted March 16, 2023; published online April 13, 2023

Abstract: In this study, we evaluated the effect of online flipped teaching on learner engagement in an English for specific purposes (ESP) listening and speaking course at a Chinese university. We also aimed to understand the factors influencing learner engagement in an online environment. For this study, an e-learning platform called Yunbanke was used for asynchronous teaching in a flipped class, and Tencent Meeting was employed for synchronous teaching in the non-flipped and flipped class, respectively. We used a mixed-methods approach. First, we conducted a quasi-experiment to compare engagement levels between the experimental group (flipped class, $n = 34$) and control group (non-flipped class, $n = 35$) before and after 16 weeks of online instruction. Then, we used lesson logs and conducted interviews with the students and the instructor. The results showed that online flipped teaching could significantly improve the learners' behavioural and cognitive engagement compared to the non-flipped class. However, no significant difference was found in emotional engagement between the two classes. Qualitative data supported our quantitative findings, and five key factors leading to different dimensions of learner engagement were identified: learners' prior English attainment, learners' perceived affordance of online learning and teaching, interpersonal factors, instructor presence and learning tasks. Our findings can shed light on online ESP learners' engagement and improve online ESP teaching practices.

Keywords: English for specific purposes (ESP); flipped teaching; influencing factors; learner engagement

***Corresponding author: Zhiyong Li**, Nankai University Binhai College, Tianjin, China; and University of Nottingham, Ningbo, China, E-mail: songlasses@163.com. <https://orcid.org/0000-0002-3460-6006>
Yang Wang, Tianjin Chengjian University, Tianjin, China, E-mail: wuyujn@sina.com

1 Introduction

Information technologies have experienced rapid development over the past few decades. Especially over the last three years, the COVID-19 pandemic and subsequent school closures have facilitated the adoption of online learning and teaching technology across various disciplines in higher education, including English for specific purposes (ESP) courses. ESP refers to courses in which “the goals, objectives and content are matched to the communicative needs” of students (Carter & Nunan, 2000, p. 3). Despite the growing popularity of online education, a nearly universal adoption of virtual teaching and learning has carried with it a range of problems due to the lack of an interactive learning environment, low learning and teaching efficiency and the failure to engage learners in the online learning space (Tang et al., 2020; Wu et al., 2017). With continuous educational disruptions caused by the pandemic, it is urgent for educators and course instructors to determine how to address the challenges mentioned above.

Flipped teaching has been increasingly accepted as a method that can revolutionise classroom teaching (Bergmann & Sams, 2012; Hung, 2015, 2017). Due to its significance to contemporary pedagogy, there has been considerable research on the effectiveness of flipped teaching in language education over the past 10 years (e.g. Amiryousefi, 2019; Challob, 2021; Hung, 2015, 2017; Lee & Wallace, 2018; Li & Li, 2022). Flipped teaching is a teaching practice that reverses the order of conventional teaching and prepares students before class; this way, students can spend more time in class performing active and deep learning activities (Amiryousefi, 2019). However, even though flipped teaching is relatively popular, few studies have focused on how well it works in online teaching—especially when it comes to what its effect on student engagement is in the ESP field. Therefore, in this study, we set out to investigate whether flipped teaching can affect learner engagement in an online ESP course. We also wanted to understand the factors influencing learner engagement in virtual learning environments. The findings of this study may fill the existing gap and help educators and ESP teachers design, develop and implement more engaging online flipped courses.

2 Literature review

2.1 Flipped teaching

Whilst flipped teaching is not a novel invention, it has grown increasingly popular since Bergmann and Sams (2012) brought it to the attention of a growing number of

educators. Flipped teaching is the opposite of traditional ways of teaching. It is defined as an instructional approach which reverses the teaching process of traditional classrooms, where students are provided videos before the class to learn what is traditionally taught inside the classroom so that they can join interactive and collaborative classroom activities (Bishop & Verleger, 2013). Furthermore, an author at the Flipped Learning Network (FLN) (2014) defined flipped teaching as “a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educators guide students as they apply concepts and engage creatively in the subject matter” (p. 1). When performing flipped teaching, teachers act as guides and facilitators who provide individualised student support. However, there are still disagreements regarding what constitutes flipped teaching, as indicated by Bond (2020) and Lo and Hew (2021). Despite this ambiguity in its definition, the core component of the flipped approach lies in the preparation of students before class and the ensuing group learning environment for interactive activities during class (Li & Li, 2022).

2.2 Definition and construct of language learner engagement

There have been various attempts to define engagement. For example, Lawson and Lawson (2013) maintained that engagement is an action that refers to the effort learners make to reach pre-decided goals. This view of engagement was shared by Skinner et al. (2009), who referred to engagement as “energised, directed, and sustained actions” (p. 225). Philp and Duchesne (2016) argued that engagement is an umbrella term used to describe learners’ interest and participation in a school activity and that engagement creates an optimal condition for learning. According to the authors, engagement refers to a state of heightened attention and involvement wherein participation is reflected in the cognitive, social, behavioural and affective dimensions. The multidimensionality of student engagement was also recognised by Bond (2020), according to whom, “student engagement is the energy and effort students employ within their learning community, observable via any number of behavioural, cognitive, or affective indicators across a continuum. It is shaped by various structural and internal influences, including the complex interplay of relationships, learning activities, and the learning environment. The more students are engaged and empowered within their learning community, the more likely they are to channel that energy back into their learning, leading to short- and long-term outcomes that can further fuel engagement.” (p. 3)

According to the above definition, engagement is a multipolar construct containing behavioural, cognitive and affective indicators. Each dimension of engagement

is interconnected and influenced by various contextual and individual factors—with the learners in the central position.

In language learning, engagement is defined by language education researchers such as Bygate and Samuda (2009) as the resources and efforts students use to accomplish their language learning goals. Svalberg (2018) approached engagement from the standpoint of language awareness. According to the author, behavioural engagement in the language setting refers to the time, effort and quality of participation in language learning tasks in the framework of engagement with language. Cognitive engagement refers to the level of learners’ attention to learning tasks, their reflections on their successes and failures while completing language tasks—as well as their self-regulating behaviours and problem-solving abilities in the language classroom. Social engagement refers to learners’ interactions and relationships with peers and the teacher.

Building on Svalberg’s construct, Hiver et al. (2020) (see also Zhao et al., 2021) claimed that behavioural engagement refers to learners’ expenditure of time and effort, and their interaction and participation in the language learning environment are indicators. Emotional/affective engagement in the language classroom refers to learners’ emotional reactions to language learning. There is a range of positive indicators of emotional/affective engagement, such as enthusiasm, interest and belonging, whereas negative indicators include anxiety, hopelessness and lack of confidence. Regarding cognitive engagement, learners’ deep learning, self-regulation and levels of attention should be considered. The present research adopts the engagement construct proposed by Hiver et al. (2020) and Zhao et al. (2021) (Table 1).

Table 1: Three-dimensional learner engagement and indicators adapted from Hiver et al. (2020) and Zhao et al. (2021).

Engagement construct	Operational definition	Example of indicators
Behavioural engagement	Learners’ participation and involvement in classroom L2 learning	Amount of time and effort, interaction, collaboration and participation in learning
Emotional engagement	Learners’ emotional reactions to teachers, peers and L2 classroom activities	Enthusiasm, interest, enjoyment, willingness to communicate; anxiety, lack of confidence, boredom
Cognitive engagement	Learners’ level of attention and investment of effort in classroom L2 learning	Deep-learning strategies, self-regulation

2.3 Learner engagement in flipped language courses

Several studies have been conducted to investigate the impact of flipped teaching on language learners' engagement. However, learners' engagement was treated in these studies as a general term or provided only an exposition of engagement from one or two dimensions. For instance, Hung (2015) detailed the benefits of flipped classrooms for students. He conducted a quasi-experimental design in multiple higher education institutions in Chinese Taiwan. Comparing the results of the experimental and control groups, he found that students taught using the flipped model performed better and were more satisfied with the course. He also found that students in the flipped class were motivated to learn when given a choice to go at their own pace and were interested in the format and organisation of the learning materials as well as the use of technology. However, Hung (2015) did not expressly state which engagement construct was affected; thus, a more detailed explanation of engagement is required.

Following a similar line of research, Lee and Wallace (2018) studied learner engagement from more dimensions than Hung (2015) when investigating 39 English learners in South Korea. The interviews revealed that students in the flipped class showed three engagement patterns: (1) they asked more questions in class; (2) they put more time and effort into the assignments and the learning process; (3) they had a deeper understanding of the material. Lee and Wallace (2018) examined how students became engaged behaviourally and cognitively; these researchers considered the questions the students asked, how much time and effort they put in and how well they understood the course material. However, the learners' emotional dimension remained unexplored.

Similar research was conducted by Amiryousefi (2019) and Fard et al. (2022). Amiryousefi (2019) performed a mixed-methods study on 69 Iranian college students in conventional and flipped EFL listening and speaking classes using learning experience surveys, assessments, and time logs. When comparing the results from the control and treatment groups, the author discovered that students taking the flipped learning approach were more interested in the flipped assignments and activities. Similarly, Fard et al. (2022) studied 60 university students who were equally allocated to an Iranian university's flipped and non-flipped ESP vocabulary courses. The researchers concluded that the flipped classroom positively influenced the students' task engagement and critical thinking skills compared to the non-flipped classroom. Task engagement is defined as "a state of heightened attention and involvement in the language tasks" (Philp & Duchesne, 2016, p. 51). Amiryousefi (2019) and Fard et al. (2022) conceptualised engagement as a general term rather than a multidimensional construct.

Attempts have also been made to uncover how flipped teaching affects the three dimensions of learner engagement. Using a pre–post *t*-test, Norazmi et al. (2017) demonstrated that students in the English for specific course were behaviourally, emotionally and cognitively engaged with the flipped technical writing class. In a similar study, Tran and Nguyen (2020) used questionnaires and semi-structured interviews to gather information about behavioural, emotional and cognitive engagement in a flipped English for tourism class in Vietnam. They found that students had a relatively high level of engagement in flipped instruction (The average ratings for the three aspects of engagement exceeded 4.0 on a 5.0 Likert scale), but the authors also reminded their readers about the limitations of this study: it only relied on the questionnaires as the post-test, which means that we do not know whether it was the flipped model that produced the positive results.

2.4 Learner engagement in flipped language courses in the Chinese mainland

In the context of the Chinese mainland, research efforts have also been made to investigate how the flipped approach affects learner engagement. For example, Jiao et al. (2017) studied the effect of flipped teaching on the emotional engagement of students attending a college English writing course. They discovered that students in the flipped class engaged more emotionally than those in the non-flipped course. In the flipped class, learners reported less emotional anxiety, greater learning interest and higher confidence levels. Additionally, compared to students in regular classrooms, learners using the flipped model were more adept at applying learning strategies as they were learning. Also interested in understanding the effect of flipped teaching on learners' emotional engagement, Huang and Hong (2016) and Wang (2016) discovered through their experimental research that flipped teaching can lower the overall anxiety level among EFL learners, corroborating the conclusions of Jiao et al. (2017). This finding was also congruent with that of Gao and Zhao (2017), who uncovered that students taking the flipped classroom were more interested in the course and more willing to engage in pre-class and in-class activities.

Nevertheless, note that not all studies on flipped learning have reported positive findings. For instance, Gao and Li (2016) discovered that students in flipped classrooms experienced more learning anxiety than those in traditional classrooms. In the flipped class, high-proficiency students were less anxious than low-proficiency students. This finding was contrary to those obtained by Huang and Hong (2016) and Wang (2016); these researchers indicated that flipped instruction's effectiveness is context-sensitive and subject to influences from multiple variables. Apart from evaluating the impact of flipped instruction on learners' emotional engagement, Gao and Li (2016) also identified a range of factors influencing the engagement. These

factors included learners' prior interest in English, the flipped classroom design and familiarity with learning platforms; however, in this study, the behavioural and cognitive dimensions remained unexplored.

Responding to the call for more research on learner engagement from multi-dimensional perspectives, Li and Li (2022) conducted a quasi-experimental study of learner engagement from behavioural, emotional, cognitive and social perspectives in an EFL classroom in a Chinese university. The results showed that after eight weeks of flipped instruction, learners in the flipped classroom were more engaged in their learning than those in the non-flipped classroom in terms of behavioural, cognitive and social dimensions. However, there were no significant differences between the flipped and non-flipped classrooms regarding emotional engagement. These researchers also identified positive and negative influencing factors: learners' engagement was positively affected by the learning environment, instructor presence, learning content and learner presence and negatively influenced by workload, lack of preparedness, lengthy videos and technical challenges.

2.5 Learner engagement in online flipped language courses

To the best of our knowledge, the effects of online flipped language classrooms on learner engagement remain largely underexplored. Among the few studies that have been performed on this subject, Thatphaiboon and Sappapan (2022) examined 37 Thai university students who took an online EFL course for a semester. They found that the students achieved statistically significant progress in the listening test through a pre- and post-test design. The questionnaires and semi-structured interviews revealed that the learners had more learning autonomy, became more active and had more collaboration and interaction with peers and the course lecturer. However, these researchers did not use a control group as a comparison; thus, we do not know for sure that the flipped classroom alone contributed to the outcome.

Wu et al. (2017) drew on the community of inquiry theory to study the effect of an online flipped classroom on EFL learners' oral proficiency and perceptions at a university in Chinese Taiwan. The experiment and interview results showed that the flipped classroom promoted oral English proficiency and learner engagement. Engagement in the study referred to the students' overall learning experiences in the flipped context, including time engagement, interaction, constructive feedback received and learners' autonomous learning. Pursuing the same path, Anggoro and Khasanah (2022) researched the effects of online flipped general English courses. The pre-post test results indicated that online flipped learning significantly improved the learners' test scores. In analysing the open-ended survey, these researchers demonstrated that the learners became more interested, motivated and engaged in the flipped course than the non-flipped class in the virtual learning environment.

In contrast to the positive findings above, some researchers have reported negative results concerning the effect of online flipped learning. For example, Fischer and Yang (2022) found that, after 14 weeks of instruction, those who took traditional online EFL classes performed better in oral English than those who took the flipped course. This difference was attributed to the fact that the learners were accustomed to the teacher–student interactions conducted in a traditional classroom and that there was a lack of learner–teacher and peer interactions in the pre-class section of flipped learning.

In reviewing the literature overall, we found that flipped teaching generally exerts a favourable influence on learner engagement in language education. Researchers have also indicated a range of contextual factors that affect engagement. However, the same research demonstrated that flipped teaching's effectiveness is context-situated and is subject to various influencing factors. In other words, due to the differences in the research context, the effectiveness of flipped teaching has also seen variation, with some studies demonstrating polarised, inconsistent findings. This means that more localised studies are required to add insights to the extant literature. Moreover, learner engagement has been treated more as a general term than as a multidimensional construct in the reviewed literature. This limitation prevents us from comprehensively understanding the influence that flipped teaching exerts on learner engagement in the language classroom. In addition, previous research tends to focus more on flipped learning in the face-to-face classroom than in the online context. Finally, most studies have been carried out on flipped EFL courses, while flipped ESP courses have received little attention.

To address the existing research gaps, we seek to answer the following research questions through this study:

RQ1: Were there any significant differences between the online flipped and online non-flipped ESP classes in learners' behavioural, emotional and cognitive engagement?

RQ2: What factors affected learners' behavioural, emotional and cognitive engagement in the online flipped ESP class?

3 Methodology

3.1 Participants

This study was conducted at a university in northern China. Second-year students were encouraged to select Business English as an ESP course. The students could

freely register for ESP Classes One and Two. The upper limit of the class size was 35 students, according to the university policy. After the registration was completed, 34 students registered for Class One and 35 for Class Two; this means that students in the study were not randomly allocated. Due to the disruptions caused by the COVID-19 pandemic, the two Business English classes had to be shifted online from the beginning of the semester. ESP Class One received flipped instruction and was designated as the experimental group, and ESP Class Two received non-flipped instruction and was designated as the control group. All students and the course instructor used Yunbanke, an e-learning platform that can be accessed for free on smartphones and computers. The participants were aged 18 to 21. The course lecturer had extensive teaching experience with traditional, non-flipped teaching and flipped instruction. He became familiar with online teaching after receiving online teaching training during the pandemic.

3.2 Instructional design

The flipped ESP class in the present study comprised asynchronous and synchronous components. The asynchronous segment refers to students' learning activities before the formal class. Students were required to watch videos and complete learning tasks on Yunbanke at any time and place before the class. These learning materials in the asynchronous class came from audio and video content derived from textbooks and online resources. The synchronous class in this study was carried out using Tencent Meeting software, where students could learn together simultaneously and interact with teachers online in a way that resembled face-to-face communication. The e-learning platform generated a record of students' learning activities, including the percentage of pre-class tasks completed and class attendance. The detailed instructional procedures are shown in Table 2.

The traditional, non-flipped class was delivered only through Tencent Meeting software. Unlike the flipped class, students in the non-flipped class were not exposed to videos and learning materials upfront. As the students did not have a chance to watch any videos before the class, the lecturer did not have much time to spend on collaborative learning activities inside the classroom. Therefore, the students had fewer opportunities to form a learning community as the course was lecture-centred (see Table 2 for detailed teaching procedures in a non-flipped traditional classroom). Table 2 shows that, in the flipped class, learners can study part of the course before the class, and there is more time spent on interactive activities than in the non-flipped course.

Table 2: Instructional procedures for flipped and non-flipped online courses adapted from Li and Li (2022, p. 8).

Non-flipped classroom	Flipped classroom
Before class – The instructor does not provide any pre-class assignments.	Before class – Students watch videos about the assignments. – Students complete worksheets about the assignments.
During class Phase A: 35 min – The instructor raises some questions about the topic as warm-up activities and then teaches vocabulary. – The instructor plays the first video twice, and students finish the listening exercise. Phase B: 45 min – The instructor plays the second video twice and writes down the general questions on the blackboard for students to discuss. – The instructor selects four students to share their views in the class and provides feedback if there are time left. – The instructor plays the video one more time. Phase C: 10 min – The instructor plays a new video/audio twice. – Students finish blank-filling or multiple questions for detailed listening. – The instructor provides answers.	During class Phase A: 10 min – The instructor checks students' worksheets and provides feedback when necessary. – The instructor plays the pre-class videos one time and asks students more questions about the video and elaborate if necessary. Phase B: 55 min – The instructor plays a new video twice and writes down the general questions on the blackboard for students to discuss. – Students form a group of four to discuss the questions and write down the main points on a piece of paper for a mini lecture. – The instructor selects four groups to share their views in the class. – The instructor provides feedback. Phase C: 25 min – The instructor plays a new video/audio twice. – Students finish blank-filling or multiple questions for detailed listening. – Students work together to compare and discuss answers with each other in the group. – The instructor checks on the responses and gives feedback if students have questions.
After class – Students review the lesson and complete listening and speaking assignments.	After class – Students review the lesson and complete listening and speaking assignments.

3.3 Research design

Sixty-nine non-English majors taking ESP (Business English) courses participated in the research. The course lasted 16 weeks in the spring semester of 2022. The whole course was taught online due to the COVID-19 pandemic. We adopted the sequential

explanatory research design (Creswell & Plano Clark, 2011): Quantitative methods (the quasi-experiment and student lesson logs) were used first, followed by qualitative methods (semi-structured interviews). All students were required to fill out an engagement questionnaire before and after the 16-week online instruction (Figure 1). Lesson logs on the e-learning platform recorded students' pre-class assignment completion and attendance in the flipped classroom. After collecting quantitative data, we used convenience sampling to recruit six students to conduct the semi-structured interviews. The reason for using convenience sampling instead of purposive sampling was attributed to some practical concerns: We did not get enough participants through purposive sampling, so we turned to convenience sampling by identifying a willing student who helped us recruit five peers in the flipped class. Although convenience sampling is less desirable than purposive sampling, it can still yield useful qualitative data in localised classroom-based research (Dörnyei, 2007; Robinson, 2014). Furthermore, designing the sampling plan depends on many other factors, such as time, money and respondent availability (Dörnyei, 2007). Apart from student participants, we also invited the teacher, who instructed the two classes, for an interview at the end of the course. In summary, the following instruments were used to investigate the students' learning: pre- and post-questionnaires, lesson logs on the e-learning platform and semi-structured interviews with students and the lecturer.

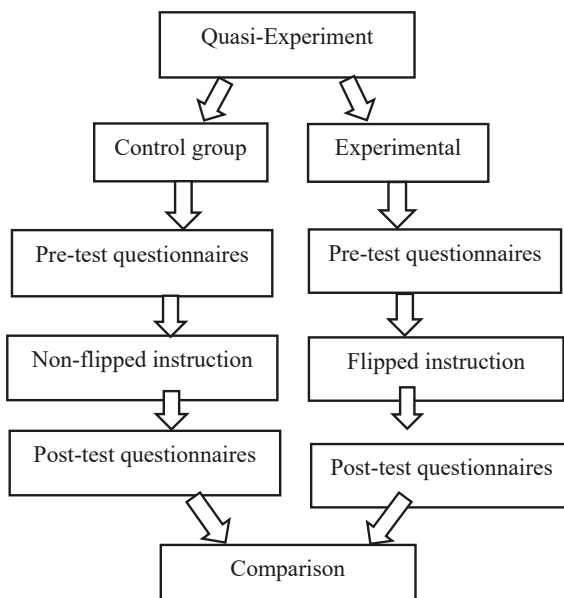


Figure 1: Quasi-experiment design.

3.4 Data collection and analysis

The instruments used in this study contained engagement questionnaires adapted from validated questionnaires of Li and Li (2022). Based on Hiver et al.'s (2020) study, Li and Li (2022) improved the engagement questionnaires to test the engagement levels of Chinese English language learners. The adapted questionnaires in the present study contained four sections, with a total of 31 items. Section one was about behavioural engagement (items 1–8), section two was about emotional engagement (9–19), section three was about cognitive engagement (items 20–27) and section four (items 27–31) contained factual questions such as learners' age, gender and English learning history. In addition to engagement questionnaires, we applied lesson log analysis and semi-structured interviews for data triangulation.

3.4.1 Questionnaires

The questionnaires contained closed-ended items that investigated the learners' behavioural, emotional and cognitive engagement based on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree". The final section of the questionnaires comprised factual questions on respondents' demographic information. The participants from the flipped and non-flipped classes had to complete the questionnaires before and after the 16-week course instruction. Before administering the questionnaires, we affirmed to the participants that the entire research was to be conducted on the condition of complete anonymity and that their identity would not be disclosed to a third party. The reliability of the questionnaires was analysed using Cronbach's alpha, reaching 0.874 and 0.85 in the first and second rounds of the questionnaire for the flipped class and 0.964 and 0.89 for the non-flipped class, respectively, indicating high reliability (Cohen et al., 2018).

As for the data analysis, the researcher conducted an independent *t*-test analysis of the data derived from the first round of questionnaires from the control and experimental groups in three engagement dimensions. If the results indicated no statistically significant differences between the flipped and non-flipped classes, an independent *t*-test was applied to check the difference between the two classes after the data were collected from the second round of questionnaires. If there were significant differences between the flipped and non-flipped classrooms in the first test round, ANCOVA was used to analyse the differences between the flipped and non-flipped classrooms after 16 weeks of instruction. The advantage of ANCOVA is that it can control pre-test differences (Dörnyei, 2007).

3.4.2 Lesson logs

Lesson logs were mainly used to triangulate the data from the questionnaires and interviews. Students' completion of tasks before the class was recorded on Yunbanke. By looking at the data that recorded the average completion rate of the learners over the past 16 weeks, we could glimpse part of the learner engagement with flipped learning, which helped us understand more about the learners' online learning processes. Moreover, students in the flipped class had to take the attendance register before each online session. Through the teacher's account, we could check the attendance rate, which was generated by the software. In this way, we could obtain additional evidence to triangulate the data collected through questionnaires and interviews.

3.4.3 Interviews

After collecting quantitative data, the researcher recruited six participants from the flipped class. These students expressed their willingness to be invited for the semi-structured interviews in the questionnaires. Among the six students, four were female and two were male. Each interview lasted about 30 minutes and was conducted in Chinese. A total of 34,000 Chinese characters were transcribed. The interview questions were related to the learners' experiences and opinions about online flipped learning to elicit their responses about their behavioural, emotional and cognitive engagement. After interviewing the students, the researcher contacted the course instructor to inquire about his views of flipped and non-flipped learning, including the students' performance and the advantages and disadvantages of online flipped teaching. The interview lasted about 40 min and was conducted in Chinese. About 11,000 Chinese characters were transcribed. Qualitative data were coded using NVivo 12. Major themes were identified by following a three-step coding process based on the content analysis method proposed by Dörnyei (2007). First, one researcher started pre-coding by reading and re-reading the transcripts and noting the ideas we thought were important. Second, at the initial coding stage, the researcher read the whole transcript from beginning to end, highlighted the important passages, and labelled them to generate initial codes. Finally, the researcher collated all the codes into potential themes and invited the other researcher to review the codes. The entire coding process was iterative, and we constantly discussed and reflected on the codes with each other throughout the process. Revisions were made when inconsistencies arose.

3.4.4 Research ethics

This research involved one gatekeeper: the teacher responsible for the non-flipped and flipped courses. One ethical issue regarding the gatekeeper is that they may fail to provide opportunities for the participants to exercise choice for participating in the research; thus, acquiring consent from both the gatekeeper and the participants is essential (Robson & McCartan, 2016). To address this problem, the following measures were taken: First, complete information regarding the research was provided to both the gatekeeper and the participants to ensure that they were appropriately informed. Only if they provided informed consent was the research data collection initiated. Second, after the gatekeeper permitted us to contact his students, we communicated with the participants independently of the gatekeeper. We clarified that the students could agree or refuse to participate in the research without any adverse consequences; they could also withdraw from the study at any time without any penalty. The gatekeeper was not present when the students gave or chose not to give consent. The gatekeeper did not know which students had consented to participate or which had not. The participants remained fully anonymous to everyone except the researchers.

Furthermore, considering that students taking the non-flipped class in the quasi-experiment were disadvantaged, we adopted the following measures: First, learners from the control group (non-flipped class) were given flipped instruction in the listening and speaking class the following semester. After data collection was completed, extra learning and teaching materials used in the flipped class (such as videos and quizzes) were made available to the students in the control group. The course lecturer and researcher instructed the students to access the materials.

4 Findings

In this study, we aimed to analyse the effectiveness of an online flipped class on learners' behavioural, emotional and cognitive engagement compared to the non-flipped traditional online class. The results were organised based on the two research questions.

4.1 Effect of online flipped teaching on learner engagement

Since the 69 people in the flipped and non-flipped online classes were not randomly selected, an independent *t*-test was conducted to determine whether the pre-test questionnaires showed any statistical differences. Table 3 shows that the differences

Table 3: Comparison of the flipped and non-flipped class pre-test questionnaire results (*t*-test).

Engagement	Class	<i>n</i>	Mean	SD	<i>t</i>	<i>p</i>
Behavioural engagement	Flipped	34	3.64	0.76	0.32	0.75
	Non-flipped	35	3.70	0.78		
Emotional engagement	Flipped	34	3.24	0.67	2.04	0.04 ^a
	Non-flipped	35	3.56	0.63		
Cognitive engagement	Flipped	34	3.30	0.87	0.57	0.57
	Non-flipped	35	3.19	0.70		

^a*p* < 0.05.

were not statistically significant in terms of behavioural and cognitive engagement (*p* > 0.05). Thus, an independent *t*-test was used to compare differences between the flipped and non-flipped classrooms in post-test behavioural and cognitive engagement. ANCOVA was applied to evaluate the difference in emotional engagement between the two classes because the difference in emotional engagement in the pre-test questionnaires was significantly different (*p* < 0.05), as shown in the table.

The results of the independent *t*-test analysis on the post-test questionnaires (Table 4) indicated that, in terms of behavioural engagement, students in the online flipped class (mean = 4.07, SD = 0.70) were higher than those in the non-flipped class (mean = 3.73, SD = 0.79), and the difference was statistically significant (*p* < 0.05). In cognitive engagement, students in the online flipped class (mean = 3.62, SD = 0.70) outperformed those in the non-flipped class (mean = 3.23, SD = 0.57). The difference also had statistical significance (*p* < 0.05). As for emotional engagement, the results of the ANCOVA analysis (Table 5) did not reveal a statistically significant difference between the online flipped class (mean = 3.51, SD = 0.53) and the online non-flipped class (mean = 3.52, SD = 0.81).

Table 4: Comparison of the flipped and non-flipped class post-test questionnaire results in behavioural and cognitive engagement (*t*-test).

Engagement	Class	<i>N</i>	Mean	SD	<i>t</i>	<i>p</i>
Behavioural engagement	Flipped	34	4.07	0.70	2.03	0.04 ^a
	Non-flipped	35	3.73	0.79		
Cognitive engagement	Flipped	34	3.62	0.70	2.52	0.02 ^a
	Non-flipped	35	3.23	0.57		

^a*p* < 0.05.

Table 5: Comparison of the flipped and non-flipped class post-test questionnaire results in emotional engagement (ANCOVA).

Engagement	Class	<i>N</i>	Mean	SD	<i>F</i>	<i>p</i>
Emotional engagement	Flipped	34	3.51	0.53	0.03	0.87
	Non-flipped	35	3.52	0.81		

p < 0.05.

In addition to the quantitative analysis of the students’ engagement questionnaires, we collected 34 students’ lesson logs on the e-learning platform in the online flipped classroom. The platform generated records of the students’ learning activities, including the percentage of pre-class tasks the students completed and the attendance rate, over 16 weeks. The average pre-class task completion rate reached 89% for all the flipped classroom students, while the attendance rate stood at 95%. This finding illustrated that the students were generally actively involved in asynchronous classes in flipped learning.

Interviews with students and the course lecturer echoed the lesson logs and suggested that most students could actively participate in the asynchronous and synchronous activities, indicating that they were behaviourally engaged in flipped teaching. Regarding cognitive engagement, the course lecturer said in the interview that the flipped classroom facilitated the students to use the vocabulary and phrases acquired in the pre-class videos. In this way, the students could join in-class discussions on speaking activities, making in-class speaking tasks easier to complete and more interactive. However, as Student 3 attested to in the interview, she still ‘felt nervous and uncomfortable when being invited by the lecturer to answer questions online because she was anxious about talking through the microphone and facing the computer screen’. This emotional struggle of Student 3 was consistent with the quantitative finding that flipped learning did not lead to a noticeable increase in the learners’ emotional engagement compared to the non-flipped class.

4.2 Factors affecting learner engagement in online flipped teaching

The analysis of semi-structured interviews with six students in the flipped class and the course lecturer led to the identification of five factors influencing learners’ engagement in the flipped online learning environment: (1) learners’ prior English attainment; (2) learners’ perceived affordances of online learning and teaching; (3) interpersonal factors; (4) instructor’s presence and (5) learning tasks. These factors

had divergent and disproportionate influences on the learners' behavioural, emotional and cognitive engagement. The interviews also indicated that the participants had nuanced views about their engagement in the flipped course.

4.2.1 Learners' prior English attainment

In the interviews with the students, the learners' language proficiency levels were identified as a critical factor affecting their emotional and behavioural engagement. This is because the students with high levels of English proficiency were active and confident in listening and speaking activities that involved collaboration with team members. However, learners lacking confidence in speaking English might have initially felt frustrated, which could have prevented them from being emotionally engaged in the synchronous classroom. For example,

I found it interesting to join team-based discussions in English, which could help me integrate better into the learning community. (S1)

My English was poor, and I felt upset when teammates communicated freely and fluently with each other. (S3)

I sometimes struggled to speak English when participating in online discussions. I still felt uneasy with the online learning environment. (S4)

The responses above demonstrate divergent engagement experiences due to the learners' varying language proficiencies. Student 1 became emotionally and behaviourally engaged in the flipped course because they had language skills that enabled them to join the group activities, have fun and acquire a sense of belonging to the learning community. In contrast, Students 3 and 4 expressed a somewhat different learning experience. They felt upset and frustrated when their English was insufficient to support them in online learning, which impaired their emotional and behavioural engagement. The interviews also revealed fluctuations in learner engagement: Students 3 and 4 said that they felt more emotionally and behaviourally engaged after "getting familiar with the learning model" and "finding that pre-class materials could support in-class activities." This finding conforms to the study of Li and Li (2022), who discovered that learners need time to adapt to flipped teaching and may experience emotional and behavioural fluctuations in the process.

4.2.2 Learners' perceived affordances of online learning and teaching

The interviews showed how the learners saw the usefulness and effectiveness of online learning and teaching and how they felt about it was affecting their emotional

engagement. Most students had a positive attitude towards online learning and teaching. They said that the e-learning platform made learning easier and helped them speak and understand English better. However, Student 3 said that physical classrooms would be better if the COVID-19 restrictions were lifted. He ‘felt worried’ because he could not solve some technical problems in the first week of online teaching. Gradually, he “adapted and eventually figured out how to resolve technical issues” but still felt that “online learning was not as effective as face-to-face study”. This suggests that when students are accustomed to conventional teaching styles in the face-to-face classroom, they resist the change and consequently experience emotional fluctuations. This finding corroborates the study of Gao and Li (2016), who noted that traditional teaching hinders students from emotionally engaging with flipped instruction.

The interview with the course instructor echoed this view:

Students had various attitudes towards the use of learning technologies. Most of them welcomed mobile phones and computers and could use them comfortably. However, some students did not get used to these technologies and encountered distraction problems.

The course instructor’s answers confirmed that the students had different ideas about how well learning technologies worked. Most students in the flipped classroom had a favourable attitude towards smartphones and computers and could easily access the learning content. However, some students became distracted and experienced emotional turbulence in the process, thus requiring more guidance and support from the teacher and staff members (Gao & Li, 2016).

4.2.3 Interpersonal factors

Interpersonal factors, such as peer relationships and learner–teacher rapport, affected the learners’ behavioural engagement. In the interviews, both the students and the course lecturer emphasised building trust and forming a close-knit online learning community among learners and between learners and the instructor. For example, Student 2 commented,

I really appreciated the lecturer’s effort to build a close-knit learning environment, especially since he had made every effort to provide pre-class learning materials and help us to learn.

This finding shows that there was understanding between the learners and the instructor in the flipped class. Student 4 pointed out that, compared to a conventional online class, flipped teaching gave him many opportunities to interact with his cohorts. He no longer felt ‘isolated from the group’ in online studies. This finding indicates that online flipped teaching plays a role in helping learners overcome isolation by facilitating their behavioural engagement.

The course lecturer also noticed apparent changes in the learners' relationship with him:

It seems that students shared more with each other, and they spoke English in a more relaxed way in classroom discussions. And I felt the increased interactions between the learners and me increased our trust and bond.

The response from the course lecturer supported the view that an increased sense of social bonding and peer support within the learning community can positively affect the behavioural engagement of learners (Sulis, 2022).

4.2.4 Instructor presence

The instructor's presence was identified as one of the crucial factors leading to the learners' cognitive and behavioural engagement in the flipped ESP course. Interviews with the learners indicated that they preferred teacher support and quick feedback in the flipped online course. All six students spoke highly of effective communication channels with the instructor through the e-learning platform. As Student 5 said, 'Easy communication was available, and I only needed to add questions to the discussion forum, and I regularly received feedback from the lecturer after the class, which helped me understand the topic more deeply'. Indeed, the active involvement of the course instructor occupied a central place throughout the design and implementation processes of the online flipped courses (Bergmann & Sams, 2012).

The interview with the instructor affirmed this point. He stated, "I felt obliged to respond to my students" inquiries because they started to ask questions actively and "you know, you felt it worth the effort when you have active and engaged learners in recognizing your course, and the feedback could provoke them to think deeply about the topic". Before and during the flipped course, the instructor's presence allowed the learners to reflect on the questions in depth, which contributed to deep learning. This finding also reflects the reciprocal relationship between learners and teachers in the flipped classroom context. Being available to support learners' needs can cement the relationship and build a rapport between learners and the lecturer, which reinforces learners' behavioural engagement (Teravainen-Goff, 2022).

4.2.5 Learning tasks

In the flipped ESP course, the students learned through videos they watched before class and through hands-on activities during class. In other words, pre-class videos and during-class activities constituted learning tasks in the flipped class. Furthermore, the e-learning platform helped the instructor design and implement activities

that encouraged the learners to finish the task and earn rewards. The findings of this interview suggested that the dynamic and accessible learning materials increased the learners' behavioural, emotional and cognitive engagement. The course lecturer commented in the interview that 'students were willing to engage in learning tasks that could reward them with scores. This view was affirmed by Student 4, who admitted,

I felt like I had to do the pre-class work on the platform because I didn't want to fall behind, and I was more motivated to work with other people. The fact that I was moving up in the list of people with the most points made me want to work hard. (S4)

Moreover, the semi-structured interviews suggested that the students were in favour of tasks closely related to their daily lives. As the students commented,

I was interested in activities that help us get ready for job interviews and suggest good job-hunting websites. You know, that was what I cared about most. (S5)

Some videos introduced tips about balancing study and university life. I am interested in topics such as avoiding procrastination and being on time for an appointment. They are relevant to me and interesting. (S6)

From the above interviews, we can see that the students might be more interested in and motivated to take part in flipped learning activities if they are given dynamic, relevant learning tasks. Furthermore, when learners' lives and interests are closely aligned with flipped teaching, there would be more behavioural engagement, which creates opportunities for peer and instructor interactions and subsequent deep learning activities (Hung, 2015).

While making tasks dynamic and relevant to students' real-life experiences benefits learners' behavioural and emotional engagement, challenging tasks may diminish that engagement. As noted by Students 3 and 6,

If the teacher assigns challenging topics to me, I will find an excuse to skip the class. Only through this can I avoid losing my face and being mocked. (S3)

Of course, learning tasks should be a little above our current language skills in difficulty; otherwise, they would be too boring. However, I would be too intimidated to attend the class if it got too difficult. (S6)

The above responses indicate competing priorities of flipped teaching: If a lecturer tailors the class to high-proficiency learners and designs tasks beyond the language proficiency of slower learners, they will dampen slower learners' behavioural and emotional engagement. In contrast, if the tasks are too easy, they will be boring and unchallenging for language learners with higher language proficiency. A delicate

balance of teaching priorities is required to ensure that the tasks meet most learners' needs while providing individualised support to slower students (Li & Li, 2022; Tran & Nguyen, 2020).

5 Discussion

In this study, we demonstrated quantitatively that there were statistically significant differences in the learners' behavioural and cognitive engagement between the flipped and non-flipped ESP classes; however, no statistical differences were found in the learners' emotional engagement. Five themes were identified as influencing factors of learner engagement: learners' prior English attainment, which impacted learners' behavioural and emotional engagement; the perceived affordance of online learning and teaching, which affected emotional engagement; instructor presence, which influenced behavioural and cognitive aspects; and learning tasks, which affected all three engagement dimensions. Furthermore, in the flipped environment, the influence was nuanced and complicated, with each factor affecting different aspects of engagement.

First, the finding that flipped teaching can significantly improve learners' behavioural and cognitive engagement echoes previous research. Previous studies have shown that learners in the flipped environment participate more actively in classroom activities (Hung, 2015, 2017), raise more questions and interact more with peers and teachers compared to the conventional classroom (Lee & Wallace, 2018). In our study, we provided empirical evidence supporting previous research and expanded these data to the online educational sphere. We showed that an online flipped classroom can positively impact learners' behavioural and cognitive engagement. This result can be explained by the flexible learning environment and the diversified, seamless learning platforms required by online flipped teaching. The platforms ensure that learners can access the learning materials at any time and place and learn at their own pace before class (Chen et al., 2014).

Second, the close alignment of pre-class learning and during-class teaching may have helped learners engage in language learning behaviourally and cognitively. Learning tasks in the flipped class bridge the pre-class and during-class learning, which scaffolds learners and enables them to actively interact with peers and the instructor during class (Amiryousefi, 2019; Li & Li, 2022; Thatphaiboon & Sappapan, 2022; Tran & Nguyen, 2020). In addition, the online flipped classroom may have established a close-knit learning community and a dynamic learning culture. In the learning community, learners look out for each other and construct knowledge together as a team. An excellent group dynamic means that slower learners could

receive help from peers and the course lecturer. In the dynamic learning culture, mistakes made in the classroom would be tolerated, and learners can practice speaking English without fearing the ridicule of others (Mercer & Dörnyei, 2020).

Another significant finding that emerged from our study was that the students in the online flipped class did not feel more emotionally engaged than those in the online non-flipped class. Emotional engagement refers to learners' emotional reactions to learning activities—including positive emotions, such as interest, enthusiasm and belonging, and negative emotions, such as anxiety and lack of confidence (Hiver et al., 2020). The lack of salient emotional engagement with online flipped instruction may be related to learners' prior English proficiency and failure to adapt to online learning. As shown in the interviews, some learners were not confident in their spoken English, which prevented them from fully participating in synchronous classroom discussions. Furthermore, an abrupt shift to online learning was caused by the COVID-19 pandemic; as such, the subsequent school closures left the students off guard and ill-prepared for online learning. As many students in the past did not have any online learning experience, they took time to adjust emotionally to virtual teaching modes (Tang et al., 2020).

Finally, our findings demonstrate that there were individual differences among learners in the flipped class. For example, some learners in the study had low acceptance of online learning and teaching technologies. Learners who perceived online learning and teaching technologies as ineffective at improving their studies would not fully engage in the course (Li & Li, 2022). This discovery is consistent with Gao and Zhao's (2017) study. These authors found that the learners in the flipped course encountered more anxiety and nervousness than those in the non-flipped class. Li and Li (2022) corroborated this view and discovered that some students experienced adverse emotional reactions towards flipped teaching. However, what differentiates this study from previous literature is that learner engagement throughout the flipped learning process did not remain static; it experienced some fluctuations and was subject to influencing variables. Under appropriate conditions, learner engagement may be on an upward trajectory, and vice versa. Our findings suggest a non-static and changeable nature of learner engagement in the language learning environment, which calls for more attention and intervention from course lecturers and other essential educational stakeholders (Mercer & Dörnyei, 2020; Sulis, 2022).

Overall, this study adds to the current understanding of online flipped teaching by revealing the complexity of the factors responsible for different dimensions of learner engagement. These factors are not restricted to individual facets, such as learners' language proficiency and perceptions of technological affordances. Instead, we found that many other variables were at play, such as the relationships between peers and the teacher, the teacher's presence throughout the learning process and

the learning tasks. Rather than looking at one or two mediators, practitioners and researchers are advised to take a holistic approach to understanding flipped instruction and learner engagement and to realise the complexity of online learning and teaching. The same rule can be applied to treating learners' engagement as a multidimensional construct rather than as a general term (Hiver et al., 2020; Sulis, 2022). This can benefit individual learners who may exhibit behavioural and cognitive engagement in flipped learning but fail to engage with the course emotionally. When there is a clear recognition of which aspect learners fail to engage in, teaching professionals and other educational stakeholders are better positioned to take corresponding measures to protect this engagement (Mercer & Dörnyei, 2020).

6 Conclusion

In this study, we showed that students are behaviourally and cognitively more engaged in a flipped class than in a non-flipped class. However, the difference in emotional engagement is not statistically significant between the two classes. Multiple factors are responsible for learner engagement online. Through these findings, we imply that flipped learning can facilitate learners' behavioural and cognitive engagement with an online course but not emotional engagement. In other words, the effect of online flipped instruction is rather nuanced: not every student can engage with the online flipped class, and some learners experience emotional fluctuations and learning problems. Our study furthers the understanding of the complex, changing and non-static engagement levels in online learning. Moreover, it contributes a wealth of information on how to ensure that learners' engagement can be realised in action. The theoretical and pedagogical implications for online flipped teaching practices are provided below.

6.1 Theoretical implications

From a theoretical perspective, we examined the effectiveness of online flipped ESP courses on learners' behavioural, emotional and cognitive engagement. We expanded the existing research regarding flipped teaching by applying it to the online sphere in the ESP course. Our findings offer the much-needed evidence supporting the adoption of the flipped model to deliver engaging online ESP courses. Furthermore, the present research supports conceptualising learner engagement as a complex, changing and multidimensional construct. In this way, subsequent researchers can gain

deeper and richer insights into how a teaching approach affects various dimensions of learners' engagement and reveals the complex relationships among learners, learning environments, educational technology and varying engagement dimensions.

6.2 Pedagogical implications

From a practical perspective, we caution through our findings against the idea that flipped instruction can inevitably produce desired learning outcomes and the complete development of learner engagement in various learning and teaching environments. In fact, flipped teaching and learner engagement are context-specific and sensitive to various variables (Hiver et al., 2020). Teaching professionals must identify these variables and remove the barriers to protect learners' engagement. In addition, it is vital to cater to online learners' emotional needs throughout the flipped teaching process. Engagement strategies should be provided to alleviate the feelings of diffidence, anxiety and frustration among learners, especially slower learners, when they take the flipped course online. Such strategies may include building a safe and dynamic learning community using modern technologies (Mercer & Dörnyei, 2020). Furthermore, learners' active participation in classroom activities should be immediately recognised with words of praise so that they can experience progress and success. Grammar, pronunciation and accent mistakes should be tolerated rather than ridiculed in the language classroom. Finally, teaching practitioners should design pre- and during-class activities relevant to learners' life and interests, consistent with the language proficiency of average learners, and build close rapport between the learners and the teacher.

6.3 Limitations of the study

One major limitation of our study is its small sample size, which may prevent the findings from being generalised in other online learning and teaching contexts. Although we collected data from various resources (questionnaires, lesson logs and student and teacher interviews) to triangulate the findings, future researchers should remain cautious while attempting to generalise the results. In future research, a larger sample size is highly recommended. Furthermore, classroom observations and more rigorous research methods, such as structured equation modelling, can be applied to investigate the associations between the online flipped classroom and the three engagement constructs. Moreover, due to the practical constraints of classroom-based research like ours, we abandoned purposive sampling and resorted to convenience sampling. Future studies can adopt the purposive

sampling method to unmask the complexity of flipped teaching and engagement. Finally, we did not collect data on learners' academic performance to supplement our findings. Future research can consider learners' academic outcomes to obtain deeper insights. Despite these limitations, the findings of the present study shed light on online flipped instruction and assist practitioners and researchers in designing and implementing more engaging online ESP courses.

Acknowledgments: The authors would like to thank all the reviewers for their comment.

Research funding: The research receives fundings from the following funding bodies: Social Sciences Research Foundation of Tianjin City, Grant number: TJZZ21009 and Social Sciences Research Foundation of Shanxi Province, Grant number: 2021YY100. The funding organizations played no role in the study design; in the collection, analysis and interpretation of data; in the writing of the report; or in the decision to submit the report for publication.

References

- Amiryousefi, M. (2019). The incorporation of flipped learning into conventional classes enhances EFL learners' L2 speaking, L2 listening, and engagement. *Innovation in Language Learning and Teaching*, 13(2), 147–161.
- Anggoro, K., & Khasanah, U. (2022). A flipped classroom model to improve students' online EFL learning. *TESOL Journal*, 13(1), 1–9.
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education.
- Bishop, J. L., & Verleger, M. A. (2013). The flipped classroom: A survey of the research. *120th American Society for Engineering Education Annual Conference and Exposition*, 30, 1–18.
- Bond, M. (2020). Facilitating student engagement through the flipped learning approach in K-12: A systematic review. *Computers and Education*, 151, 103819.
- Bygate, M., & Samuda, V. (2009). Creating pressure in task pedagogy: The joint roles of field, purpose, and engagement within the interaction approaches. In A. Mackey, & C. Polio (Eds.), *Multiple perspectives on interaction: Second language research in honour of Susan M. Gass* (pp. 90–116). Routledge.
- Carter, R., & Nunan, D. (2000). Introduction. In R. Carter, & D. Nunan (Eds.), *Teaching English to speakers of other languages* (pp. 1–6). Oxford University Press.
- Challob, A. (2021). The effect of flipped learning on EFL students' writing performance, autonomy, and motivation. *Education and Information Technologies*, 26(4), 3743–3769.
- Chen, Y., Wang, Y., Kinshuk, & Chen, N. (2014). Is FLIP enough? Or should we use the FLIPPED model instead? *Computers & Education*, 79, 16–27.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Creswell, J., & Plano Clark, V. (2011). *Designing and conducting mixed methods research* (2nd ed.). SAGE Publications.
- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford University Press.

- Fard, R. Z., Shahrokhi, M., & Talebinezhad, M. R. (2022). Flipped classroom approach in ESP courses: Focus on ESP students' critical thinking and engagement. *Journal of Foreign Language Research*, 12(1), 74–93.
- Fischer, I. D., & Yang, J. C. (2022). Flipping the flipped class: Using online collaboration to enhance EFL students' oral learning skills. *International Journal of Educational Technology in Higher Education*, 19(1), 1–24.
- Flipped Learning Network (FLN). (2014). *Flipped learning*. Retrieved from Definition of Flipped Learning – Flipped Learning Network Hub.
- Gao, L., & Li, J. N. (2016). English classroom anxiety of Chinese learners: Flipped versus traditional. *Technology Enhanced Foreign Languages*, 167(1), 37–41.
- Gao, T., & Zhao, X. Y. (2017). Survey of English major's engagement in the flipped classroom. *Language and Education*, 5(02), 69–74.
- Hiver, P., Zhou, S., Tahmouresi, S., Sang, Y., & Papi, M. (2020). Why stories matter: Exploring learner engagement and metacognition through narratives of the L2 learning experience. *System*, 91(4), 1–12.
- Huang, Y. N., & Hong, Z. R. (2016). The effects of a flipped English classroom intervention on students' information and communication technology and English reading comprehension. *Educational Technology Research and Development*, 64(2), 175–193.
- Hung, H. T. (2015). Flipping the classroom for English language learners to foster active learning. *Computer Assisted Language Learning*, 28(1), 81–96.
- Hung, H. T. (2017). Design-based research: Redesign of an English language course using a flipped classroom approach. *TESOL Quarterly*, 51(1), 180–192.
- Jiao, L. X., Ren, C. L., & Lv, C. J. (2017). Feasibility of flipped classroom model in college English writing classrooms via ICLASS platform. *Journal of Beijing University of Post and Telecommunication (Social Sciences Edition)*, 19(1), 87–93.
- Lawson, M. A., & Lawson, H. A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research*, 83, 432–497.
- Lee, G., & Wallace, A. (2018). Flipped learning in English as a foreign language classroom: Outcomes and perceptions. *TESOL Quarterly*, 52(1), 62–84.
- Li, Z. Y., & Li, J. Y. (2022). Using the flipped classroom to promote learner engagement for the sustainable development of language skills: A mixed-methods study. *Sustainability*, 14(10), 5983.
- Lo, C. K., & Hew, K. F. (2021). Student engagement in mathematics flipped classrooms: Implications of journal publications from 2011 to 2020. *Frontiers in Psychology*, 12, 672–610.
- Mercer, S., & Dörnyei, Z. (2020). *Engaging language learners in contemporary classrooms*. Cambridge University Press.
- Norazmi, D., Dwee, C. Y., Suzilla, J., & Nurzarina, A. S. (2017). Exploring student engagement in writing using the flipped classroom approach. *Pertanika Journal of Social Sciences & Humanities*, 25(2), 663–674.
- Philp, J., & Duchesne, S. (2016). Exploring engagement in tasks in the language classroom. *Annual Review of Applied Linguistics*, 36, 50–72.
- Robinson, O. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology*, 11(1), 25–41.
- Robson, C., & McCartan, K. (2016). *Real world research: A resource for users of social research methods in applied settings* (4th ed.). John Wiley & Sons.
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, 69(3), 493–525.
- Sulis, G. (2022). Engagement in the foreign language classroom: Micro and macro perspectives. *System*. Advance Online Publication. <https://doi.org/10.1016/j.system.2022.102902>

- Svalberg, A. M.-L. (2018). Researching language engagement: Current trends, and future directions. *Language Awareness*, 27(1–2), 21–39.
- Tang, T., Abuhmaid, A., Olaimat, M., Oudat, D., Aldhaeebi, M., & Bamanger, E. (2020). The efficiency of flipped classroom with online-based teaching under COVID-19. *Interactive Learning Environments*. Advance Online Publication. <https://doi.org/10.1080/10494820.2020.1817761>
- Teravainen-Goff, A. (2022). Why motivated learners might not engage in language learning: An exploratory interview study of language learners and teachers. *Language Teaching Research*. Advance Online Publication. <https://doi.org/10.1177/13621688221135399>
- Thatphai boon, R., & Sappapan, P. (2022). The effects of the flipped classroom through online video conferencing on EFL learners' listening skills. *Arab World English Journal*, 13(3), 89–105.
- Tran, Q. T. T., & Nguyen, L. V. E. F. L. (2020). Student engagement in an English for specific purposes tourism class: Flipped the class with Facebook. In M. R. Freiermuth, & N. Zarrinabadi (Eds.), *Technology and the psychology of second language learners and users* (pp. 175–202). Palgrave Macmillan.
- Wang, Y. (2016). Research on English learning anxiety of non-English majors under the flipped model. *Journal of Guangxi Normal University: Philosophy and Social Sciences Edition*, 52(04), 134–139.
- Wu, W. V., Hsieh, J. S., & Yang, J. (2017). Creating an online learning community in a flipped classroom to enhance EFL learners' oral proficiency. *Journal of Educational Technology and Society*, 20, 142–157.
- Zhao, S. Y., Hiver, P., & Al-Hoorie, A. (2021). Measuring L2 engagement: A review of issues and applications. In P. Hiver, A. Al-Hoorie, & S. Mercer (Eds.), *Student engagement in the language classroom* (pp. 75–98). Multilingual Matters.

Bionotes

Zhiyong Li

Nankai University Binhai College, Tianjin, China

University of Nottingham, Ningbo, China

songlasses@163.com

<https://orcid.org/0000-0002-3460-6006>

Zhiyong Li is an associate professor at Nankai University Binhai College. He is currently a doctoral candidate at the University of Nottingham Ningbo China. His research interests include the flipped classroom, learner engagement, and positive psychology in technology-based language education. He has published papers in RELC Journal, Frontiers in Psychology and other SSCI-indexed journals.

Yang Wang

Tianjin Chengjian University, Tianjin, China

wuyun@sina.com

Yang Wang received his PhD from the Graduate School of Chinese Academy of Social Sciences. He currently teaches at Tianjin Chengjian University. His research areas are English as a foreign language education and intercultural communication. He has published research articles in several CSSCI-indexed journals.