

1252

1. Introduction

In the field of language teaching, a large number of the researchers have always been concerned about the role of technology in language classes (Zou et al., 2020). This interest in technological breakthrough mainly stems from the positive effects of innovative technology-mediated software on learners' learning process in diverse educational settings (Yu et al., 2022). In this regard, second language acquisition researchers have highlighted the utility of the Internet in language instruction as a fundamental source of language teaching input (Shafiee Rad et al., 2022). As a result, they have taken advantage of diverse language learning websites, online dictionaries, Internet-based flashcards, and virtual language games among others in order to facilitate the learners' acquisition of the target language (Li et al., 2021).

Among the above-mentioned online resources, language-learning software has been widely utilized in recent years in various language instruction settings (Lee, 2020). This type of software is developed on the basis of the essential second language acquisition principles and intends to provide the learners with the opportunity to practice the target language at their own pace (Hsieh et al., 2017). It encompasses various application categories including video games, gamified applications, and interactive platforms (Li et al., 2021).

The interactive language-learning platforms have been extensively used in both second and foreign language classes owing to their compatibility with the other software such as games (Dara Tafazoli et al., 2019). That is, they empower the instructors to integrate games and other advancements such as online flashcards into the learners' online language acquisition process (Mirzaei et al., 2022). Additionally, these applications facilitate the learning of language for the learners who are not able to attend traditional in-person classes owing to various reasons (Mok, 2014).

Learning Management Systems (LMSs) constitute a category of these interactive systems that have been increasingly used in language classes (Hodges, 2018). The utility of LMS interactive platforms in language instruction stems from the convenience of their use. Moreover, it is related to their potentiality for providing learners with access to language classes across the world without being influenced by time and location-related limitations (Zarrinabadi & Ebrahimi, 2018).

The aforementioned positive features of LMSs have motivated the researchers to take advantage of them in blended language instruction. This approach to language teaching integrates online education into in-person face-to-face language classes in order to take advantage of the strengths of both of the traditional and virtual

approaches in a simultaneous way (Abdullah et al., 2019). Blended instruction is regarded to be a more advantageous language teaching approach compared to traditional approaches owing to the fact that it personalizes the process of language learning and is more flexible than both the in-person and online approaches (Afrilyasanti et al., 2016).

Among the various blended instruction strategies, Flipped Language Teaching (FLT) has been more popular than the other strategies and has been used in various language-teaching contexts (Burke & Fedorek, 2017). FLT is a blended instruction strategy that reverses the orthodox order of language teaching by providing the learners with online language content outside the class on interactive platforms including LMSs and by keeping the in-person class time for interactive language learning tasks (Comber et al., 2018). More specifically, in FLT, the instructor provides the learners with text materials and video and audio lectures that empower them to practice language concepts and to learn the new vocabulary items and grammatical structures at their own pace. Next, in the in-person classes, the instructors prompts the learners to engage in various communicative tasks that help them to take advantage of their acquired language knowledge to produce the relevant outcome of the tasks (Haghighi et al., 2019).

A number of researchers have highlighted the effectiveness of FLT in language classes owing to the fact that it is likely to ameliorate both the learners' language acquisition along with their affective factors (Yilmaz, 2017). One of the main affective factors that is likely to be influenced by FLT is Self-Regulated Language Learning (SRLL) (Ye et al., 2018). SRLL encompasses the process in which the learners actively determine their language acquisition objectives, monitor their own language development, and attempt to modify their learning strategies to deal with their weaknesses (Zimmerman & Moylan, 2009).

The examination of the empirical research on FLT shows that certain research lines have been followed. First, a number of studies have examined the utility of Internet-based input in FLT. For instance, Zou et al. (2020) examined the extent to which Wikipedia-based language content helped the learners to learn new words in FLT and reported the efficacy of this kind of language content. Moreover, other studies have examined the role of peer feedback in this approach. In this regard, Zou and Xie (2018) explored the efficacy of peer feedback on LMSs in FLT in the learners' writing skill development and argued that peer feedback positively affected writing skill development. Additionally, certain studies have examined learners' attitudes towards FLT. For example, Lee and Wallace (2018) scrutinized EFL learners' perspectives on FLT in language institutes and stated that most of the learners considered it as an advantageous instructional approach. Lastly, some of

the studies have examined the impacts of FLT on language acquisition. Regarding this line of research, Kirmizi and Kömeç (2019) investigated the effects of FLT on learners' vocabulary acquisition and noted that it ameliorated their learning of new words.

However, these studies have not dealt with the role of FLT in learners' affective characteristics including their SRL in different EFL contexts including context of Iraq. The examination of this issue is likely to provide Iraqi educators and syllabus designers with guidelines on the incorporation of FLT into language classes in different educational settings. This study aimed to deal with this gap in research in Iraqi context by answering the following research question:

1. Does FLT have a significant effect on Iraqi EFL learners' SRL?

2. Method

2.1. Design

In this study, the researcher used the quasi-experimental design (Creswell, 2009) to answer the raised question. In this design, the researchers use pretests and posttests along with treatment to examine the effects of independent variables on dependent variables without random sampling and random assignment (Creswell, 2009). Likewise, in this study, the researcher used convenient sampling, a SRL pretest and posttest, and FLT treatment sessions to determine the impacts of FLT on Iraqi EFL learners' SRL.

2.2. Participants

The researcher used convenience sampling to select the sample of the study. Accordingly, the researcher selected 50 intermediate-level EFL learners in two classes of a public high school in AL Muthana as the participants (age range=14-16). These learners were native speakers of Arabic and gave informed consent to the researcher to be included in the study.

2.3. Instruments

The following instruments were used in this study:

2.3.1. Oxford Placement Test

The researcher utilized Allan's (2004) Oxford Placement Test (OPT) to ensure the intermediate proficiency level of the selected participants. This test involved 20 grammar, 20 vocabulary, and 20 cloze test items. Its Cronbach's alpha reliability index was acceptable in Iraqi context ($\alpha=.87$).

2.3.2. Self-Regulated Language Learning Questionnaire



Based on the aims, the researcher used Tseng et al.'s (2017) questionnaire as the SRL pretest and posttest. This instrument comprised 20 items that were rated on a 4-point scale. Based on reliability analysis results, the reliability index of this instrument ($\alpha=.85$) was satisfactory in the present study.

2.3.3. Learning Management System

In order to provide the experimental group with FLT treatment, the researcher used Adobe Connect LMS. This LMS constitutes an interactive language-learning environment that enables the instructors to provide their learners with language instruction with the help of various in-built features including audio and video-sharing, chat box, file sharing, and camera sharing among the others (Zou et al. 2020).

2.4. Procedure

In the present study, first, the researcher selected 50 intermediate-level female learners in two classes (i.e. 25 learners in each class) of a public high school in Iraq as the participants. Second, she randomly assigned one of these classes to the Experimental Group (EG) and the other to the Control Group (CG).

Third, the researcher administered SRL pretest to both of the groups as the pretest to ensure their homogeneity. Fourth, the researcher provided EG with FLT treatment in 20 sessions in 10 weeks (i.e., two sessions per week). In this group, the researcher used Adobe Connect LMS to provide the learners with video lectures on process writing. These videos provided the learners with adequate information about the pre-writing stage of argumentative essays and guided them through the drafting, revising and editing stages. Moreover, they furnished them with example essays that enabled the learners to put their knowledge of argumentative essays into practice. Additionally, in the in-person classes, the researcher engaged the learners in collaborative writing tasks that enabled them to provide their peers with feedback in their writing performance and to write effective argumentative essays on the selected topics of the tasks. Nonetheless, the CG followed the traditional order of writing instruction. That is, in this class, the researcher provided the learners with adequate information about the stages of process writing in in-person sessions and asked them to write argumentative essays on the selected topics as homework of the following sessions.

Fourth, the researcher administered the SRL pretest to both EG and CG as the posttest of the study to examine the efficacy of the treatment. Lastly, the researcher analyzed the data to answer the raised research question.

2.5. Data Analysis

In the present study, the researcher used Mean (M) and Standard Deviation (SD) descriptive statistics to describe the data, Moreover, the researcher used paired-samples t-test and independent-samples t-test (Pallant, 2020) to perform the analysis.

3. Results

The preliminary analysis showed that the pretest and posttest data of the study were normally-distributed based on the results of Kolmogorov–Smirnov test ($p>.05$). Moreover, they were independently gathered for EG and CG and were interval data. As a result, they were congruent with the parametric tests assumptions (Pallant, 2020). As a result, paired-samples t-test and independent-samples t-test had to be used to answer the question of the study:

1. Does FLT have a significant effect on Iraqi EFL learners' SRL?

Based on the aims, first, the researcher compared pretest results of the groups to ensure their homogeneity. Table 1 shows these results:

Table 1

Descriptive Statistics on Pretest Results of EG and CG

Groups	N	M	SD	SEM
EG	25	49.65	2.21	.223
CG	25	50.12	2.87	.257

Moreover, the researcher used an independent-samples t-test to examine the homogeneity of these groups. Table 2 provides the relevant results:

Table 2

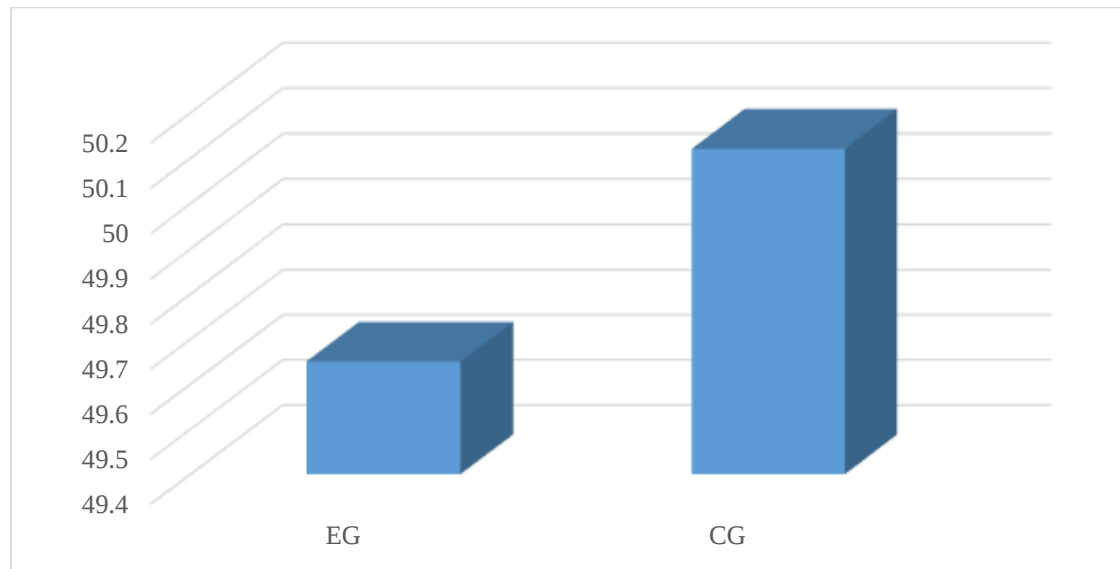
The t-test of Pretest Results of EG and CG

Equal variances	Levene's Test	t	df	Sig.
	.546	-.807	48	.754

As shown in Table 2, there was not a significance difference between SRL of groups ($p>.05$) and they were homogeneous. Figure 1 illustrates these results:

Figure 1

SRLI Pretest Performances of EG and CG



Therefore, the researcher compared the pretest and posttest performances of EG. Table 3 shows the related results:

Table 3

Descriptive Statistics on Pretest and Posttest Performances of EG

Groups	M	N	SD	SEM
Pretest	49.65	25	2.21	.223
Posttest	66.28	25	2.95	.266

In addition, the researcher used a paired-samples t-test to examine the improvement in posttest of EG. Table 4 shows the pertinent results:

Table 4

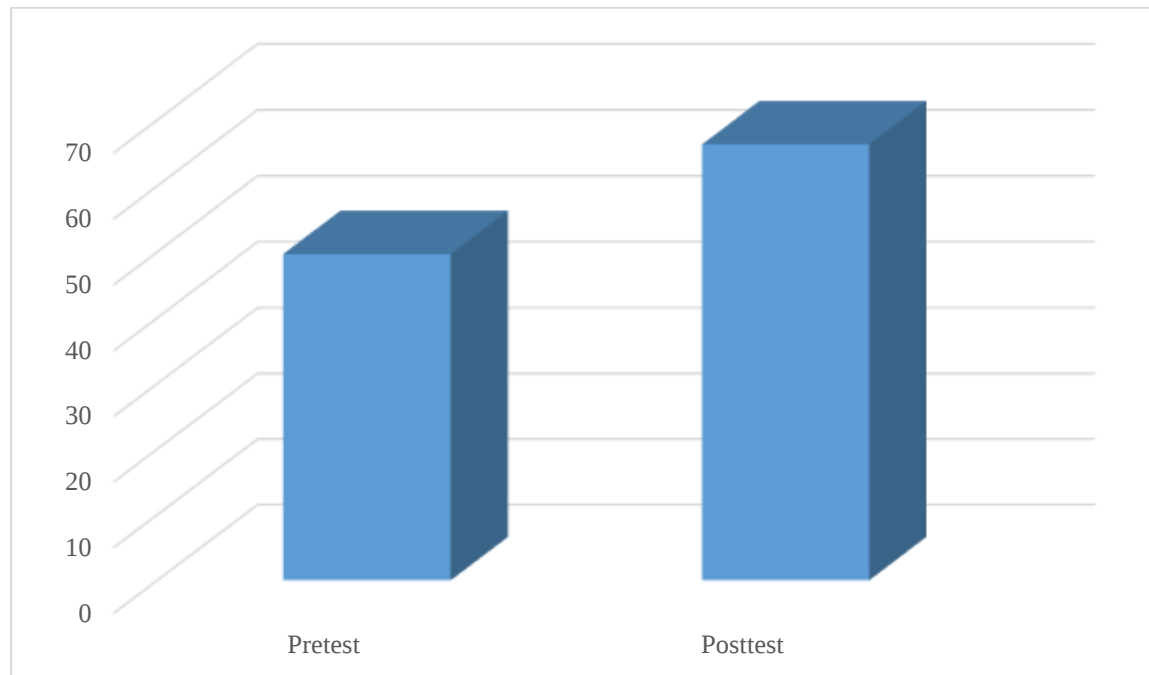
The t-test of Pretest and Posttest Results of EG

Pretest-Posttest	t	df	Sig.
	5.226	24	.000

As shown in Table 4, there was a significant improvement to the SRLL of EG ($p < .05$). Figure 2 shows these results:

Figure 2

SRLL Pretest and Posttest Performances of EG



Finally, the researcher compared the posttest performances of EG and CG to ensure that the improvements to the posttest result of EG stemmed from the FLT treatment. Table 5 shows these results:

Table 5

Descriptive Statistics on Posttest Results of EG and CG

Groups	N	M	SD	SEM
EG	25	66.28	2.95	.266
CG	25	52.47	2.51	.243

The researcher used an independent-samples t-test to examine the significance of the difference between the performances of these groups. Table 6 provides these results:

Table 6

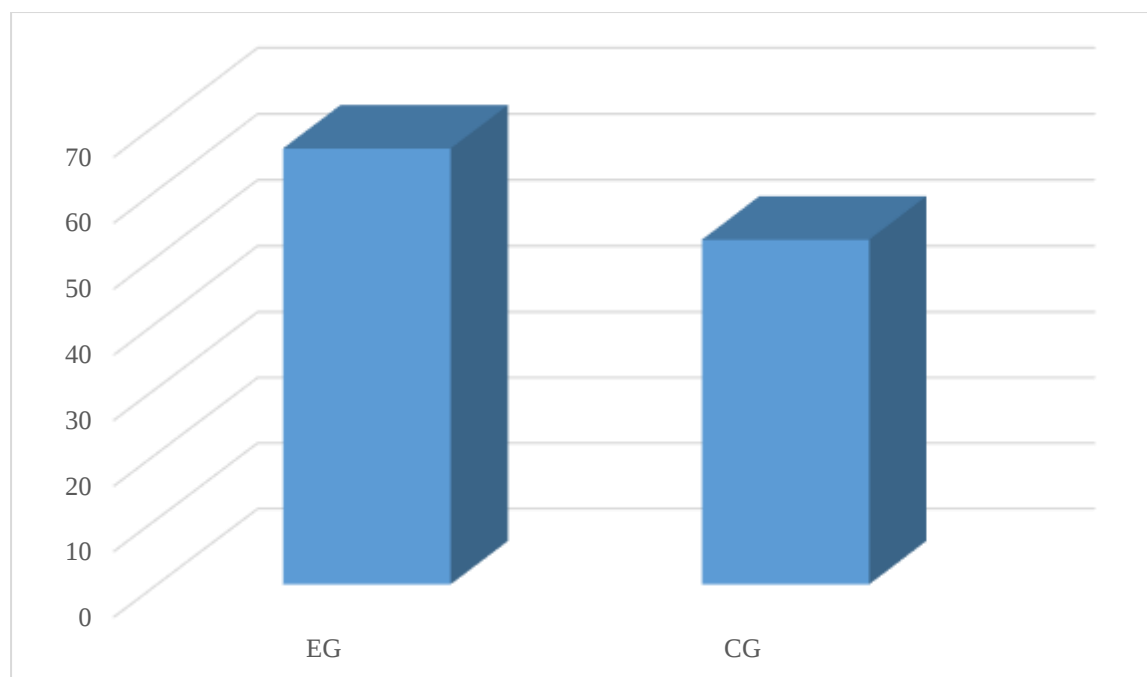
The t-test of Posttest Results of EG and CG

Equal variances	Levene's Test	t	df	Sig.
	.685	-.824	48	.000

According to Table 6, there was a significance difference between SRLL of groups ($p < .05$) and EG had a better performance on posttest in comparison with CG. Figure 3 illustrates these results:

Figure 3

SRLL Posttest Performances of EG and CG



4. Discussion

The present study scrutinized the extent to which FLT influenced Iraqi EFL learners' SRLL. The results showed that this approach significantly improved the participants' SRLL in school settings. These results are in line with the results of Afrilyasanti et al., (2016), Abdullah et al. (2019), and Shafiee Rad et al. (2022).

It can be argued that FLT had a positive effect on Iraqi learners' SRLL owing to the fact that it increased their autonomy and control over their learning process. More specifically, FLT empowered these learners to engage with the materials of their classes at their own pace and based on their own schedule (Ye et al., 2018). This autonomy ameliorated the learners' SRLL since it helped them to take charge

of their language learning in an effective way. In addition, FLT personalized the learners' acquisition process and had a beneficial effect on their SRL due to the fact that it let the learners review the challenging writing concepts multiple times.

Additionally, the utility of FLT in this study can be related to Iraqi EFL learners' enhanced motivation and their task engagement. More specifically, FLT made the learners' language acquisition more engaging since it enabled them to participate in interactive activities and made them aware of the practical applications of their writing knowledge in the in-person classes (Zarrinabadi & Ebrahimi, 2018). In addition, it improved their intrinsic motivation owing to the fact that it helped them to provide their peers with constructive feedback in interactive writing tasks. Therefore, the learners' motivation prompted them to take responsibility for their writing skill development and improved their SRL.

Lastly, it can be averred that the efficacy of FLT in this study was related to the learners' metacognitive skill development. That is, FLT encouraged the learners' to reflect on their learning progress and the effectiveness of their learning strategies (Shafiee Rad et al., 2022). As a result, the learners developed metacognitive skills that ameliorated their SRL by helping them to set writing skill development goals, monitoring their progress, and adjusting their learning strategies accordingly.

5. Conclusion

The present study examined the effects of FLT on Iraqi EFL learners' SRL in school settings. The results highlighted the effectiveness of FLT regarding the amelioration of these learners' SRL in Iraqi EFL context.

The results have implications for both Iraqi EFL teacher educators and syllabus designers. First, it is necessary to include a technology-based module in Iraqi teacher training courses in order to make the EFL teachers cognizant of the advantages of technological advancements in language instruction and to enable them to utilize interactive platforms including LMSs in order to implement blended instruction and FLT. In this way, EFL teachers can utilize technology-mediated approaches including FLT effectively to facilitate their learners' language acquisition and to improve their SRL.

Additionally, Iraqi syllabus designers have to develop FLT-based language courses and to incorporate them into the educational setting of public schools. These courses are likely to take advantages of the online materials and in-person classes to improve the learners' SRL and to facilitate their development of various language skills.



The present study had certain limitations since it could not randomly select both male and female participants. Moreover, the researcher delimited the study by focusing on public schools without dealing with the other settings such as language institutes. The future studies need to deal with these issues. Additionally, these studies have to use mixed-methods designs to gather both quantitative and qualitative data on the impacts of FLT on EFL learners' SRL.

References

- Abdullah, M. Y., Hussin, S., & Ismail, K. (2019). Implementation of flipped classroom model and its effectiveness on English speaking performance. *International Journal of Emerging Technologies in Learning*, 14(9), 12-25.
- Afrilyasanti, R., Cahyono, B. Y., & Astuti, U. P. (2016). Effect of flipped classroom model on Indonesian EFL students' writing ability across and individual differences in learning. *International Journal of English Language and Linguistics Research*, 4(5), 65-81.
- Allan D. (2004). *Oxford placement test*. Oxford University Press.
- Burke, A. S., & Fedorek, B. (2017). Does flipping promote engagement?: A comparison of a traditional, online, and flipped class. *Active Learning in Higher Education*, 18(1), 11-24.
- Comber, D. P., & Brady-Van den Bos, M. (2018). Too much, too soon? A critical investigation into factors that make flipped classrooms effective. *Higher Education Research & Development*, 5, 1-16.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd Ed.). Sage Publications.
- Dara Tafazoli, M., Parra, E. G., & Abril, C. A. H. (2019). Attitude towards computer-assisted language learning: Do gender, age and educational level matter? *Teaching English with Technology*, 19(3), 22-39.
- Haghighi, H., Jafarigohar, M., Khoshsima, H., & Vahdany, F. (2019). Impact of flipped classroom on EFL learners' appropriate use of refusal: Achievement, participation, perception. *Computer Assisted Language Learning*, 32(3), 261-293.
- Hodges, M. (2018). Ensuring videos for a flipped classroom increase inclusivity. *Journal of Computing Sciences in Colleges*, 34(1), 81-88.
- Hsieh, J. S. C., Huang, Y. M., & Wu, W. C. V. (2017). Technological acceptance of LINE in flipped EFL oral training. *Computers in Human Behavior*, 70, 178-190. <https://doi.org/10.1016/j.chb.2016.12.066>
- Kirmizi, Ö., & Kömeç, F. (2019). The impact of the flipped classroom on receptive and productive vocabulary learning. *Journal of Language and Linguistic Studies*, 15(2), 437-449.

- Lee, C. (2020). A study of adolescent English learners' cognitive engagement in writing while using an automated content feedback system. *Computer Assisted Language Learning*, 33(1-2), 26-57.
- Lee, G., & Wallace, A. (2018). Flipped learning in the English as a foreign language classroom: Outcomes and perceptions. *TESOL Quarterly*, 52(1), 62–84.
- Li, R., Meng, Z., Tian, M., Zhang, Z., & Xiao, W. (2021). Modelling Chinese EFL learners' flow experiences in digital game-based vocabulary learning: The roles of learner and contextual factors. *Computer Assisted Language Learning*, 34(4), 483-505.
- Mirzaei, A., Shafiee Rad, H., & Rahimi, E. (2022). Integrating ARCS motivational model and flipped teaching in L2 classrooms: A case of EFL expository writing. *Computer Assisted Language Learning*, 3, 1-30. <https://doi.org/10.1080/09588221.2022.2068614>
- Mok, H. N. (2014). Teaching tip: The flipped classroom. *Journal of Information Systems Education*, 25(1), 7-11.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge. <https://doi.org/10.4324/9781003117452>
- Shafiee Rad, H., Namaziandost, E., & Razmi, M. H. (2022). Integrating STAD and flipped learning in expository writing skills: Impacts on students' achievement and perceptions. *Journal of Research on Technology in Education*, 5, 1-17. <https://doi.org/10.1080/15391523.2022.2030265>
- Ye, S. H., Hsiao, T. Y., & Sun, C. T. (2018). Using commercial video games in flipped classrooms to support physical concept construction. *Journal of Computer Assisted Learning*, 7, 1-13. <https://doi.org/10.1111/jcal.12267>
- Yilmaz, R. (2017). Exploring the role of e-learning readiness on student satisfaction and motivation in flipped classroom. *Computers in Human Behavior*, 70, 251-260.
- Yu, J., Zhou, X., Yang, X., & Hu, J. (2022). Mobile-assisted or paper-based? The influence of the reading medium on the reading comprehension of English as a foreign language. *Computer Assisted Language Learning*, 35(1-2), 217-245.
- Zarrinabadi, N., & Ebrahimi, A. (2018). Increasing peer collaborative dialogue using a flipped classroom strategy. *Innovation in Language Learning and Teaching*, 4, 1-11. <https://doi.org/10.1080/17501229.2018.1455688>
- Zimmerman, B. J., & Moylan, A. R. (2009). Self-regulation: Where metacognition and motivation intersect. In D. J. Hacker, J. Dunlosky, & A. C. Graesser (Eds.), *Handbook of metacognition in education* (pp. 299-315). Routledge.



- Zou, D., & Xie, H. (2018). Flipping an English writing class with technology-enhanced just-in-time teaching and peer instruction. *Interactive Learning Environments*, 28(2), 1127–1142.
- Zou, D., Xie, H., Wang, F., & Kwan, R. (2020). Flipped learning with Wikipedia in higher education. *Studies in Higher Education*, 45(5), 1026-1045.