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L2 Writing Self-Efficacy and English Writing Achievement in MOOCs: A Moderated Mediating Model

Abdulaziz Alshahrani
Assoc. Prof., Applied Linguistics, Al-Baha University, College of Arts and Humanities, Saudi Arabia, *a.shahrani@bu.edu.sa*

This study aimed to examine the interaction mechanism between L2 writing self-efficacy, online continuous learning intention, teacher support and MOOC writing course learning achievement. Participants of this study were 300 students of the MOOC English writing course. A survey was used to collect data. The study found that online continuous learning intention had a mediating effect between L2 writing self-efficacy, expressed self-efficacy, language self-efficacy and learning achievement; teachers' cognitive support and autonomous support play an important role in the second half of the overall mediating effect. Moderating effect, that is, both are moderating variables between online continuous learning intention and writing learning achievement.

Keywords: L2 writing self-efficacy, English writing achievement, MOOCs, moderated mediating model

INTRODUCTION

Promoting college English learning rests on two crucial skills; namely reading and writing (Kemaloglu, 2021). Thus, teaching English at the college level should give priority to cultivating college students' reading and writing abilities (Toshpulatova & Kinjemuratova, 2020). English writing is regarded as an important aspect of reading and writing skills (Sağlam & Arslan, 2018), and so English writing has always been a hot topic in foreign language teaching research (Moses & Mohamad, 2019). The "cloud teaching" model of MOOCs at time of crisis (e.g. during 2020 epidemic) has promoted the emergence and development of a new education ecology (Alyoussef, 2023; Tepetaş et al., 2021). Multi-party participation and various forms of online education are new education models, and English writing education has also been more comprehensively transformed from offline to online (Kemaloglu, 2021).

Prior research has shown that psychological factors such as learners' L2 motivational self, motivated behavior, and writing self-efficacy can have a significant impact on writing learning performance (Chen et al., 2022; Chen et al., 2021; Graham et al., 2020; Zhang, 2024). In an attempt to if there were any changes in the self-efficacy levels of a group of students before and after they attended a blended MOOC on English Technical Writing skills, Phan and Chen (2022) questionnaired 113 full-time undergraduates and 9

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part-time graduate engineering students and found students became more self-efficacious towards English writing after they attended the blended MOOC.

Aladini et al.(2025) examined the impact of self-directed writing development through computer- and AI-based tasks on L2 writing outcomes, growth mindfulness, and grammatical knowledge. The results indicated that the EG significantly outperformed the CG in writing outcomes and grammatical accuracy. Moreover, the EG demonstrated greater growth in mindfulness, with participants showing increased awareness of their writing processes and enhanced self-regulation strategies.

However, compared with face-to-face teaching in real classroom situations, online English writing teaching has more unstable characteristics. In addition to the above influencing factors, the effect of online writing teaching may also be affected by the network technology environment, students' willingness to continue learning, and interference from factors such as teacher support. As such, the intrinsic influencing mechanism of learning achievement in MOOC English writing courses is the focus of this study.

Problem Statement

Previous research on writing self-efficacy mainly focused on exploring the direct impact of writing self-efficacy on writing learning achievement. Empirical studies by Li (2022) and Torres et al. (2020) all show that there are differences in writing scores among college students with different writing self-efficacy levels, and there is a significant positive correlation between the two. In addition, domestic and foreign scholars also focus on research on the correlation between writing self-efficacy and other factors such as writing strategies, writing anxiety, and performance goals (Kirmizi & Kirmizi, 2015; Mendoza et al., 2022; Pionera et al., 2020; Zhang & Guo, 2012). It is not difficult to see that most previous studies were carried out on the premise that writing self-efficacy plays a role in actual classroom teaching. So, does this variable play the same role in the online MOOC learning context as in the offline context, and interact with other factors? There are currently few studies discussing this issue.

Aims

This study aimed to explore the interaction mechanism between L2 writing self-efficacy, online continuous learning intention, teacher support and MOOC writing course learning achievement.

LITERATURE REVIEW

L2 writing self-efficacy

Self-efficacy is “the self-belief and confidence an individual holds to complete a specific task” (Saygı-Gerçeker, 2023, P.562). Since this concept was proposed, it has received widespread attention from many applied language scholars (İspir & Yıldız, 2023; Uyar et al., 2022) and social psychologist (Bandura, 2004). It has been continuously developed and improved. L2 writing self-efficacy, that is, the self-efficacy of learners who use English as a foreign language in learning English writing, covers language self-efficacy (linguistic self-efficacy), self-regulation efficacy (self - regulatory efficacy) and performance self-efficacy) three dimensions (Hwang, 2021;

Kahramanoğlu & Dursun, 2022). Language self-efficacy is a learner's judgment of the extent to which one has the cognitive and language-related abilities required for English writing. This dimension focuses on the learner's real language ability to retrieve words from long-term memory and use syntax correctly when writing. Self-regulatory efficacy is students' perceived ability to perform cognitive control in the process of learning and writing, such as the ability to monitor the learning process, evaluate learning outcomes, and establish learning goals. Performance self-efficacy refers to learners' judgment of whether they have the ability to complete the writing task.

Willingness to continue learning online and students' perceived teacher support

The "high dropout rate" and "low completion rate" of MOOC courses have always attracted the attention of educators and researchers, and have long restricted the development of MOOC courses (Rõõm et al., 2021). The lack of willingness of learners to continue learning online is to be the reason for this. the primary cause of a phenomenon (Demir & İlhan, 2022). Online continuous learning intention has two levels of meaning, namely the learner's willingness to complete the current learning task and the willingness to continue participating in the next course. This study only focuses on the former (Yakar, 2021). Learners' persistence in completing learning is a key influencing factor and necessary condition for learning success (Xiao et al., 2024), which in turn involves many aspects such as learners' cognition, behavior, motivation, and emotion. Research has confirmed that teaching satisfaction, learning motivation, and self-efficacy are all influencing factors of online continuous learning willingness (Croxton, 2014; Darkwa & Antwi, 2021; Zhou et al., 2022). In a survey study on 306 Korean college students Jung & Lee (2018) found that learners' self-efficacy can significantly affect their willingness to continue learning online through learning engagement. Previous research has fully proved the significant role of self-efficacy on online continuous learning intention, and the further impact of online continuous learning intention on learning achievement. Few studies have combined the three for discussion. Accordingly, whether learners' willingness to continue learning online is a mediating variable between second language writing self-efficacy and MOOC writing learning achievement is the primary question to be answered in this study.

Additionally, teacher support, as an important component of social support, plays a role in the teaching process that cannot be ignored. It is directly related to learners' learning effects (Lei et al., 2018), and also affects learners' willingness to continue learning. Brandisauskiene et al. (2023) studied the relationship between teacher support and learning motivation in a classroom teaching environment and found that teachers' autonomy-supportive behavior can help enhance the classroom atmosphere and promote students' high-level internal motivation and sense of learning competence, thereby promoting learners' The occurrence of continuous learning behavior. Ma et al. (2023) determined the relationship between teacher support and willingness to continue learning online through structural equation modeling and mediation effect testing. That is, the higher the teacher's support, the higher the learner's willingness to continue learning online. In short, teacher support is not only an important influencing factor of learning achievement, but also plays a role in learners' willingness to continue learning online, which makes teacher support meet the conditions for becoming a potential

moderating variable between online continuous learning intention and online learning achievement. Therefore, on the premise that continuous learning intention has a significant predictive effect on learners' MOOC writing learning achievements, whether teacher support plays a moderating role between the two will be the second question to be answered in this study.

This study raised two main research questions:

1. Does learners' willingness to continue learning online play a mediating effect between L2 writing self-efficacy and MOOC learning achievement?

2. When the mediating effect is significant, does the teacher's support perceived by learners play a moderating role in the second half of the mediating effect?

METHOD

Hypotheses

According to the research questions, this study established a concept diagram of moderated mediation effects (see Figure 1), and planned to test the following two hypotheses.

Hypothesis 1: Learners' willingness to continue learning online plays a mediating role between the three dimensions of L2 writing self-efficacy and learning achievements in MOOC English writing courses.

Hypothesis 2: When the mediating effect is significant, learners' perceived teacher support plays a moderating role in the second half of the mediating effect.

It can be seen from Figure 1 that L2 writing self-efficacy affects online continuous learning intention, which in turn affects MOOC writing learning achievement. Based on this, it is hypothesized that online continuous learning intention is the mediating variable between L2 writing efficacy and MOOC writing learning achievement (Hypothesis 1). In addition, students' perceived teacher support has an impact on the second half of the mediating effect (the predictive effect of online continuous learning intention on MOOC writing learning achievement), based on which it is hypothesized that students' perceived teacher support is the relationship between online continuous learning intention and MOOC writing learning Moderating variables between achievement (Hypothesis 2).

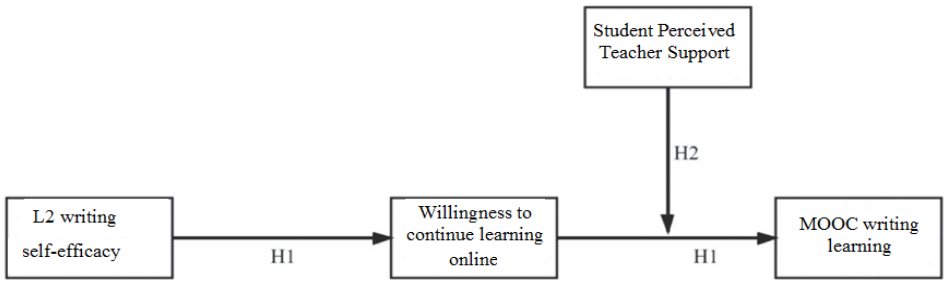

Figure 1
Conceptual diagram of moderated mediation effects

Participants

Participants of this study were 300 students of the MOOC English writing course offered by Al-Baha University. This course is mainly designed for undergraduates. It has a relatively complete teaching support team. It offers learning content and expansion resources on time every week, organizes students to interact in discussion forums, and relies on online groups to provide learners with comprehensive information in real time. Among the study subjects, 200 were males (66.6%) and 100 were females (32.4%), including 60 freshmen (20%), 80 sophomores (26.6%), 100 juniors (33.4%), and 60 seniors (20%).

Data collection

This study obtained data through an online questionnaire. The questionnaire is divided into two parts. The first part collects the personal information and writing course scores of the respondents. The second part includes the L2 writing self-efficacy questionnaire, the learners' willingness to continue learning online and the learners' perceived teacher support questionnaire. The L2 writing self-efficacy questionnaire uses the questionnaire designed by Teng et al. (2018) based on social theory and self-regulated learning theory. The questionnaire includes language self-efficacy (5 questions), self-regulation efficacy (4 questions) and performance self-efficacy (5 questions). The learner online continuous learning intention scale is based on that of Shin (2003). The scale was chosen as It had good psychometric properties. The scale contains 4 items. The questionnaire was adapted and modified by the researcher. The teacher support scale is an adaptation of that of Ming & Junjian (2022), which includes 4 subscales: Teacher support, Autonomous support, Cognitive support and Emotional support, with 3 items in each subscale. The questionnaire is a 7-point Likert scale, with options from 1 to 7 representing "strongly disagree" to "strongly agree" respectively. A total of 380 questionnaires were distributed during the survey, and 300 valid questionnaires were received. Reliability analysis showed that the Cronbach's coefficient of the questionnaire was high (0.88-0.93), and the CFA confirmatory factor analysis indicators of each dimension were consistent with x2/df<3, CFI>0.9, TLI>0.9, RMSEA<0.08 (see Table 1), indicating that the questionnaire has good reliability and validity.

Table 1
Questionnaire validity test for each variable

Variables	fit index						
	x2/df	RMSEA	GFI	AGFI	IFI	CFI	TLI
Student Perceived Teacher Support	2.115	0.075	0.935	0.892	0.980	0.983	0.977
L2 writing self-efficacy	2.132	0.074	0.913	0.886	0.973	0.976	0.974
Willingness to continue learning online	2.202	0.080	0.975	0.941	0.991	0.990	0.980
critical value	<3.00	<0.08	>0.90	>0.85	>0.90	>0.90	>0.90

Data Analysis

AMOS 23.0 and SPSS 25.0 were used to analyze data. Based on the research hypothesis, this study established a multi-independent variable mediating effect hypothesis model (see figure 2) to explore the mediator between learners' willingness to continue learning online in the three dimensions of L2 writing self-efficacy and learning achievements in English writing courses. Among them, the three dimensions of second

language writing self-efficacy are independent variables, online continuous learning intention is the mediating variable, and online writing learning achievement is the dependent variable. Secondly, after averaging the three dimensions of L2 writing self-efficacy as an independent variable (i.e., L2 writing self-efficacy in Figure 3), a moderated mediation test should be conducted. When the mediation effect is significant ($p<0.05$), the three dimensions of students' perceived teacher support are used as moderator variables and placed in the second half of the mediation effect for testing, forming a moderated mediation hypothesis model (see Figure 3). Thirdly, Bootstrap (bootstrap method) was used to test the mediation and moderating effects of the model in sequence, and finally the research results were obtained.

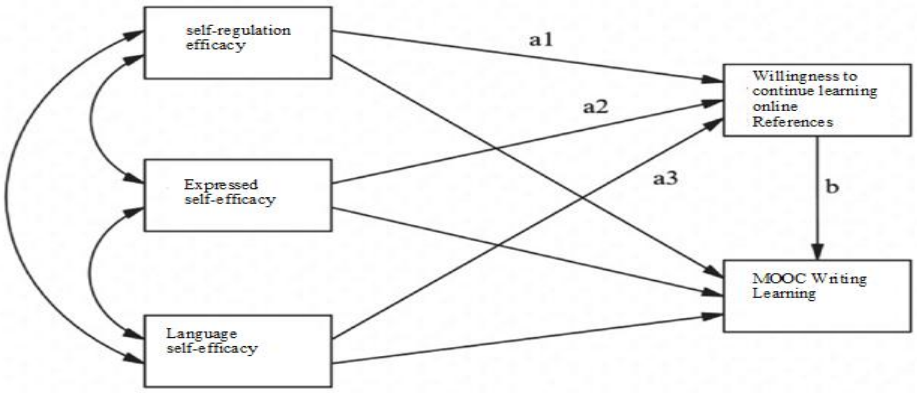

Figure 2
Mediating effect hypothesis model (1)

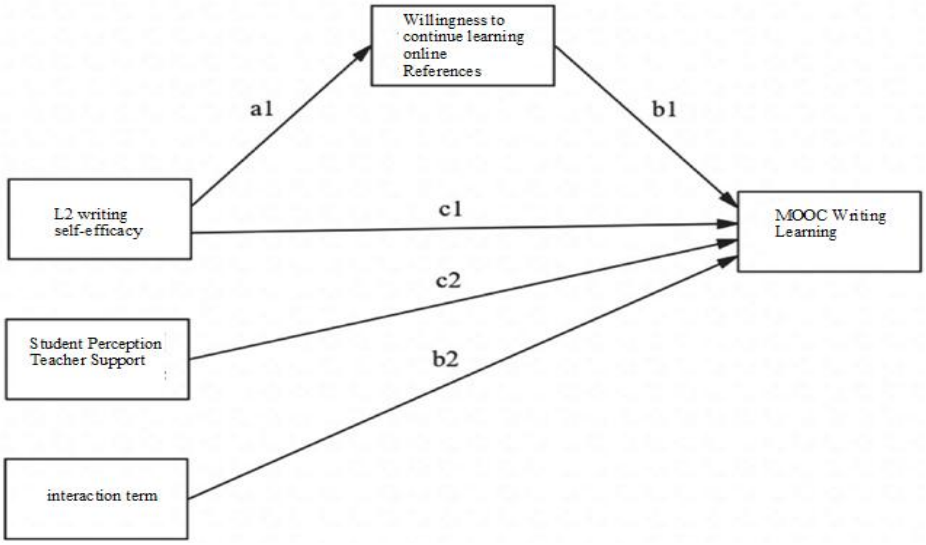

Figure 3
Moderated mediation hypothesis model (2)

FINDINGS

The mediating effect of online continuous learning intention

In order to test the mediating effect of online continuous learning intention on the relationship between L2 writing self-efficacy and MOOC writing achievement, this study conducted a parametric test of the mediating effect of each variable. The test results of model 1 (see Figure 2) show that the path coefficient from the three subscales of L2 writing self-efficacy to online continuous learning intention is significant. Thus, hypothesis 1 that online continuous learning intention is a mediating variable is established, and the indirect effect exists, that is, online continuous learning intention is a mediating variable between the three subscales of L2 writing self-efficacy and MOOC English writing course learning achievement, answering the research question 1. The results are shown in table 2. As shown in the table, self-regulatory efficacy has a significant predictive effect on online continuous learning intention (a1=0.11, p=0.014<0.05), indicating that learners with strong self-regulatory efficacy have strong metacognitive control ability and are more aware of their actual online learning.

Expressed self-efficacy has a significant predictive effect on online continuous learning intention (a2=0.27, p=0.001<0.05). This is because performance self-efficacy reflects learners' confidence in their ability to complete course writing tasks. Although language self-efficacy can also significantly affect the willingness to continue learning online (p=0.028<0.05), the path coefficient is negative (a3=-0.20), that is, this variable has an important impact on the willingness to continue learning online. Online continuous learning intention significantly predicts MOOC writing learning achievement (b=0.41, p=0.002<0.05).

Table 2
Mediating effect of online continuous learning intention

Indirect effect	Estimate	(Product of Coefficients)		Bootstrapping			
				Bias-Corrected 95% CI		Percentile 95% CI	
		SE	Z-Value	Lower	Upper	Lower	Upper
a1 × b	0.111	0.054	2.33	0.029	0.254	0.024	0.266
a2 × b	0.277	0.058	4.25	0.188	0.356	0.187	0.381
a3 × b	-0.077	0.049	-1.80	-0.192	-0.007	-0.179	-0.003

Note: 5,000 bootstrap samples (standardized)

The moderating effect of teacher support on the second half of the mediating effect

This study put the four subscales of teacher support into the moderated mediation hypothesis model 2 (see table 3). Results show that when teacher's cognitive support is used as the moderator variable (C1=0.28 (p=0.02<0.05), which shows that teacher's cognitive support can significantly mediate the relationship between online continuous learning intention and writing learning achievement. In the same way, teacher's autonomous support is also a moderator variable between the two (C2=0.28 p=0.02<0.05). These findings answer question two.

Table 3
Mediating effect of teacher support

Indirect effect	Estimate	(Product of Coefficients)		Bootstrapping			
				Bias-Corrected 95% CI		Percentile 95% CI	
		SE	Z-Value	Lower	Upper	Lower	Upper
C1 × b	0.281	0.059	4.15	0.030	0.260	0.040	0.270
C2 × b	0.288	0.056	4.25	0.190	0.370	0.190	0.391

Note: 5,000 bootstrap samples (standardized)

DISCUSSION

Self-regulatory efficacy has a significant predictive effect on online continuous learning intention, indicating that learners with strong self-regulatory efficacy have strong metacognitive control ability and are more aware of their actual online learning. They have a clear understanding of the process and can conduct online learning in a targeted manner. The clear learning goals make it easier for them to persist in online course learning. For learners with a weak sense of self-regulation efficacy (De Barba et al., 2016), they lack learning goals and motivation (Çebi & Güyer, 2020), and when the supervision role of online teaching teachers is difficult to play, it is easy to give up halfway in the learning process, exacerbating the situation of low willingness to continue learning.

Expressed self-efficacy has a significant predictive effect on online continuous learning intention. This is because performance self-efficacy reflects learners' confidence in their ability to complete course writing tasks. This psychological factor can greatly affect the extent to which learners complete course tasks. Learners with high performance self-efficacy believe that they have the ability to complete course tasks and are not afraid of the difficulties they will encounter in the learning process. They have constructed a good performance self in their hearts and look forward to realizing this self. Therefore, they are enthusiastic about continuing to follow the class and, achieve success. Learners with low expressed self-efficacy may doubt their abilities and become anxious when facing challenges, thereby reducing their willingness to continue learning online. This finding supports that of prior research (e.g. Taufiq-Hail et al., 2021), in that, the results revealed a statistically significant relationship between the three constructs and performance. A study confirming self-efficacy to be a critical factor in L2 writing achievement was conducted by Golparvar and Khafi (2021). In their study, the researchers examined the relationship between L2 self-efficacy and summary writing performance of a group of EFL learners (n= 192). The results showed that the students' high self-efficacy was a predictor of their L2 summary-writing success.

Although language self-efficacy can also significantly affect the willingness to continue learning online, the path coefficient is negative, that is, this variable has an important impact on the willingness to continue learning online. The negative predictive effect is significant, which also leads to the weakening effect of language self-efficacy on academic performance through the willingness to continue learning online. This research conclusion is quite different from the research conclusion reached by Sun (2021) that writing skill self-efficacy positively predicts students' offline writing

learning performance. The primary reason for this phenomenon may be that differences in online and offline teaching methods lead to different research conclusions. The secondary reason may be that learners with strong self-perception of language ability are easily satisfied with their current writing level and neglect the learning of new knowledge, while learners with weak language self-efficacy are more likely to humbly ask for advice, persist in completing learning, and gain higher academic performance. In addition, another possible reason is that learners with strong self-perception of language ability believe that the MOOC writing course in this study cannot meet their needs to improve their writing skills (Zheng & Xiao, 2024) and tend to learn new writing courses that suit their own ability level (Zalli et al., 2020).

Online continuous learning intention significantly predicts MOOC writing learning achievement. This result supports the research conclusions of Hamdan & Amorri (2022), indicating that the willingness to continue learning online is a key positive factor for learners' learning achievement in online English writing courses, which is specifically reflected in the learning with high willingness to continue learning online. Learners who have low willingness to continue learning can achieve higher learning achievements after the course than learners who have low willingness to continue learning. During the online learning process, factors such as the time it takes learners to complete learning tasks and their enthusiasm for participating in discussions and interactions are important indicators of the success of learning. These indicators are closely related to the willingness to continue online learning, and together they determine learning achieve their online learning achievements.

The results of this study show that teacher support can play a moderating role in the impact of other variables (self-efficacy, willingness to continue online learning) on scholars' learning achievements. This is because teachers play a leading role in the online teaching process and play the role in the entire course practice process. On the one hand, learners with a strong sense of teachers' cognitive support will believe that they can obtain useful knowledge from the teacher's teachings, and their willingness to continue learning and academic performance will be positively affected by this factor. However, in an environment with low cognitive support, learners think that the teacher's level is not high, they are not interested in learning, and they have a perfunctory attitude towards the whole learning process, resulting in unsatisfactory learning willingness and final achievement. On the other hand, teaching autonomous support is also an important regulating variable. Such learners with a strong sense of support have fewer technical problems during the online schooling process, are more familiar with the operation of online learning software, and can better adapt to the online teaching environment. For those learners who think that teachers do not help them solve platform technical problems well, they may be frustrated in the first step of online learning and become proficient in using platform software, and become resistant to online learning, which will affect their willingness to learn. The relationship between. Because of this, teachers' cognitive and autonomous support can moderate the second half of the medium effect of online continuous learning intention between L2 writing self-efficacy and online writing achievement.

CONCLUSION

This study aimed to explore the interaction mechanism between L2 writing self-efficacy, online continuous learning intention, teacher support and MOOC writing course learning achievement. The study found that online continuous learning intention had a mediating effect between L2 writing self-efficacy, expressed self-efficacy, language self-efficacy and learning achievement; teachers' cognitive support and autonomous support play an important role in the second half of the overall mediating effect. Moderating effect, that is, both are moderating variables between online continuous learning intention and writing learning achievement. Given these findings, it is suggested that the curriculum designers incorporate the MOOC writing course in EFL writing courses.

LIMITATIONS

This study adopts a cross-sectional research model using a questionnaire survey method and is a quantitative study based on observed variables. Therefore, it is unable to investigate the continuity and intergenerational effects of individual online writing learning processes. In the future, researchers may use a longitudinal research model to conduct research on intra-group differences among subjects. They may also add qualitative research methods such as interviews to discuss the research results from the perspective of learners. They may also use structural equation models based on latent variables. Conduct research to make up for the shortcomings of this study.

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DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the author, without undue reservation.

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REFERENCES

Aladini, A., Sayed M., Khasawneh, M.& Shakibaei, G.(2025). *Self-directed writing development across computer/AI-based tasks: Unraveling the traces on L2 writing outcomes, growth mindfulness, and grammatical knowledge.* Computers in Human Behavior Reports, 2025-03, DOI: 10.1016/j.chbr.2024.100566

Alyoussef, I. (2023). The Impact of Massive Open Online Courses (MOOCs) on Knowledge Management Using Integrated Innovation Diffusion Theory and the Technology Acceptance Model. *Education Sciences, 13,* 531. https://doi.org/10.3390/educsci13060531

Bandura, A. (2004). *Social cognitive theory for personal and social change by enabling media*. In A. Singhal, M. J. Cody, E. M. Rogers & M. Sabido (eds.). Entertainment-

Education and Social Change: History Research, and Practice. Mahwah, NJ: Lawrence Erlbaum Associates. 75-96.

Brandisauskiene, A., Buksnyte-Marmiene, L., Cesnaviciene, J. & Jarasiunaite-Fedosejeva, G. (2023). The Relationship Between Teacher's Autonomy-Supportive Behavior and Learning Strategies Applied by Students: The Role of Teacher Support and Equity. *SAGE Open, 13*(2). https://doi.org/10.1177/21582440231181384

Çebi, A. & Güyer, T. (2020). Students' interaction patterns in different online learning activities and their relationship with motivation, self-regulated learning strategy and learning performance. *Education and Information Technologies*, 1-19. https://doi.org/10.1007/s10639-020-10151-1

Chen, J., Zhang, L. J., Wang, X., & Zhang, T. (2021). Impacts of self-regulated strategy development-based revision instruction on English-as-a-foreign-language students' self-efficacy for text revision: A mixed-methods study. *Frontiers in Psychology, 12,* Article 670100. https://doi.org/10.3389/fpsyg.2021.670100

Chen, J., Zhang, L. & Chen, X. (2022). L2 learners' self-regulated learning strategies and self-efficacy for writing achievement: A latent profile analysis. *Language Teaching Research*, *0*(0). https://doi.org/10.1177/13621688221134967

Croxton, R. (2014). The Role of Interactivity in Student Satisfaction and Persistence in Online Learning. *Journal of Online Learning and Teaching*, *10,* 314.

Darkwa, B. & Antwi, S. (2021) From Classroom to Online: Comparing the Effectiveness and Student Academic Performance of Classroom Learning and Online Learning. *Open Access Library Journal*, *8*, 1-22. https://doi.org/10.4236/oalib.1107597

De Barba, P., Kennedy, G. & Ainley, M. (2016). The role of students' motivation and participation in predicting performance in a MOOC. *Journal of Computer Assisted Learning*, *32*(3), 218-231. https://doi.org/10.1111/jcal.12130

Demir, F. & İlhan, E. (2022). Students' Self-Directed Online Learning Skills in Distance Higher Education: Students' Voice and Faculty Members' Supports. *Psycho-Educational Research Reviews, 11*(1), 174–193. https://doi.org/10.52963/PERR_Biruni_V11.N1.11

Demirkol, T. & Demiröz, H. (2022). Exploring the relationship between L2 writing self-efficacy and language proficiency level. *The Literacy Trek*, *8*(2), 203-222. https://doi.org/10.47216/literacytrek.1148773

Golparvar, S. E., & Khafi, A. (2021). The role of L2 writing self-efficacy in integrated writing strategy use and performance. *Assessing Writing, 47*, 100504. https://doi.org/10.1016/j.asw.2020.100504

Graham, S., Woore, R., Porter, A., Courtney, L. &Savory, C. (2020). Navigating the challenges of L2 reading: Self-efficacy, self-regulatory reading strategies, and learner profiles. *Modern Language Journal*, *104*, 693–714. https://doi.org/10.1111/modl.12670

Hamdan, K. & Amorri, A. (2022). *The Impact of Online Learning Strategies on Students' Academic Performance.* IntechOpen. https://doi.org/10.5772/intechopen.94425

Hwang, S. (2021). The Mediating Effects of Self-Efficacy and Classroom Stress on Professional Development and Student-Centered Instruction. *International Journal of Instruction*, *14*(1), 1-16. https://doi.org/10.29333/iji.2021.1411a

İspir, B., & Yıldız, A. (2023). Discussing of the Implementation Process for Writing to Learn Activities. *Psycho-Educational Research Reviews*, *12*(3), 626–635. https://doi.org/10.52963/PERR_Biruni_V12.N3.08

Jung, Y., & Lee, J. (2018). Learning Engagement and Persistence in Massive Open Online Courses (MOOCS). *Computers and Education, 122,* 9-22. https://doi.org/10.1016/j.compedu.2018.02.013

Kahramanoğlu, R. & Dursun, B. (2022). Investigation the Relationship between Online Homework, Academic Success and Self-Regulation. *Psycho-Educational Research Reviews*, *11*(2), 23–37. https://doi.org/10.52963/PERR_Biruni_V11.N2.02

Kemaloglu-Er, E. (2021). The Use of Travel Blog Writing in a Tertiary Level English for Specific Purposes Course. *Psycho-Educational Research Reviews*, *10*(3), 336–349. https://doi.org/10.52963/PERR_Biruni_V10.N3.21

Kirmizi, Ö. & Kirmizi, C. (2015). An investigation of L2 learners' writing self-efficacy, writing anxiety and its causes at higher education in Turkey, *International Journal of Higher Education* 4: 57-66. https://doi.org/10.5430/ijhe.v4n2p57

Lei, H., Cui, Y., & Chiu, M. M. (2018). The relationship between teacher support and students' academic emotions: A meta-analysis. *Frontiers in Psychology, 8,* Article 2288. https://doi.org/10.3389/fpsyg.2017.02288

Li, B. (2022). Research on correlation between English writing self-efficacy and psychological anxiety of college students. *Frontiers in Psychology*, *27*, 13:957664. https://doi.org/10.3389/fpsyg.2022.957664

Ma, X., Jiang, M. & Nong, L. (2023). The effect of teacher support on Chinese university students' sustainable online learning engagement and online academic persistence in the post-epidemic era. *Frontiers in Psychology*, *14*, 1076552. https://doi.org/10.3389/fpsyg.2023.1076552

Mendoza, L., Lehtonen, T., Lindblom-Ylänne, S. & Hyytinen, H. (2022). Exploring first-year university students' learning journals: conceptions of second language self-concept and self-efficacy for academic writing. *System*, *106*, 102759. https://doi.org/10.1016/j.system.2022.102759

Ming, L.& Junjian, L. (2022). Characteristics of Teacher Support in Online Learning Environments Based on the Learners' Perspective. *Proceedings of the 9th International Conference on Education, Language, Art and Inter-Cultural Communication (ICELAIC 2022)* https://doi.org/10.55060/s.atssh.230322.001

Moses, R. and Mohamad, M. (2019). Challenges Faced by Students and Teachers on Writing Skills in ESL Contexts: A Literature Review. *Creative Education, 10,* 3385-3391. https://doi.org/10.4236/ce.2019.1013260.

Phan, N. T. T., & Chen, C. (2022). Taiwanese engineering students' self-efficacy and academic performance. Arab World English Journal (AWEJ) 2nd Special Issue on Covid 19 Challenges (2) 426-436. DOI: https://dx.doi.org/10.24093/awej/covid2.28

Pionera, M., Degeng, I. N. S., Widiati, U., & Setyosari, P. (2020). Instructional Methods and Self-Regulated Learning in Writing. *International Journal of Instruction*, *13*(3), 43-60. https://doi.org/10.29333/iji.2020.1334a

Rõõm, M., Lepp, M.& Luik, P. (2021). Dropout Time and Learners' Performance in Computer Programming MOOCs. *Education Sciences ,11,* 643. https://doi.org/10.3390/educsci11100643

Sağlam, D. & Arslan, A. (2018). The Development of English Language Skills Self-Efficacy Scale for Higher Education Students. *Psycho-Educational Research Reviews, 7*(2), 1–15. Retrieved from https://www.perrjournal.com/index.php/perrjournal/article/view/235

Saygı-Gerçeker, C. (2023). Prospective Music Teachers' Attitudes, Self-Efficacy, and Study Habits Towards Piano Course in Terms of Different Variables. *Psycho-Educational Research Reviews*, *12*(3), 561–584. https://doi.org/10.52963/PERR_Biruni_V12.N3.04

Shin, N. (2003). Transactional presence as a critical predictor of success in distance learning. *Distance Education,* 24(1), 69-86. https://doi.org/10.1080/01587910303048

Sun, T. (2021). *Relationship between Writing Self-Efficacy and Writing Achievement: Evidence from an Empirical Study and a Meta-Analysis.* Doctor of Philosophy in Educational Research, Measurement, and Evaluation.

Taufiq-Hail, G., Sarea, A. & Hawaldar, T. (2021). The Impact of Self-Efficacy on Feelings and Task Performance of Academic and Teaching Staff in Bahrain during COVID-19: Analysis by SEM and ANN. *Journal of Open Innovation: Technology, Market, and Complexity, 7*(4):224. https://doi.org/10.3390/joitmc7040224

Teng, L., Sun, P. & Xu, L. (2018). Conceptualizing writing self-efficacy in English as a foreign language contexts: scale validation through structural equation modeling. *TESOL Q. ,52,* 911–942. https://doi.org/10.1002/tesq.432

Tepetaş Cengiz, G. Şule, & Erol, D. (2021). Validity and Reliability Study of the Parent-Child Shared Book Reading Inventory. *Psycho-Educational Research Reviews, 10*(2), 328–350. https://doi.org/10.52963/PERR_Biruni_V10.N2.23

Torres, K., Arrastia-Chisholm, M. C&Tackett, S. (2020). Perceptions of writing anxiety and self-efficacy among Spanish heritage language learners. *Journal of Hispanic Higher Education, 19* 84–98. https://doi.org/10.1177/1538192718775175

Toshpulatova, D. & Kinjemuratova, A. (2020). Teacher Perceptions on Developing Students' Critical Thinking Skills in Academic English Module. *Psycho-Educational Research Reviews*, *9*(1), 48–60. Retrieved from https://www.perrjournal.com/index.php/perrjournal/article/view/141

Uyar, Ş. & Öztürk, N. (2022). Pre-Service Teachers' Self-Efficacy Perceptions and Metacognitive Skills in Predicting the Measurement and Evaluation Course Achievement. *Psycho-Educational Research Reviews, 11*(3), 692–705. https://doi.org/10.52963/PERR_Biruni_V11.N3.21

Xiao, W., Wang, M. & Mo, J . (2024). Factors influencing college teachers' adoption of live online teaching: a conditional process model of technology acceptance, user satisfaction and privacy concerns. *Frontiers in Psychology*, *14*, 1293879. https://doi.org/10.3389/fpsyg.2023.1293879

Yakar, A. (2021). How Responsible Are Turkish Secondary School Students for Distance Learning During the Covid-19 Pandemic: A Scale Development and Implementation Study. *Psycho-Educational Research Reviews*, *10*(3), 377–392. https://doi.org/10.52963/PERR_Biruni_V10.N3.24

Zalli, M., Nordin, H., & Awang, R. (2020). Online Self-Regulated Learning Strategies in MOOCs: A Measurement Model. *International Journal of Emerging Technologies in Learning (iJET), 15*(08), 255–263. https://doi.org/10.3991/ijet.v15i08.12401

Zhou, L., Xue, S. & Li, R. (2022). Extending the technology acceptance model to explore students' intention to use an online education platform at a University in China. *SAGE Open, 12*, 21582440221085259. https://doi.org/10.1177/21582440221085

Zhang, T. (2024). Effects of self-regulation strategies on EFL learners' language learning motivation, willingness to communication, self-efficacy, and creativity. *BMC Psychology*, *12*, 75 . https://doi.org/10.1186/s40359-024-01567-2

Zhang, Y. & Guo, H. (2012). A study of English writing and domain-specific motivation and self-efficacy of Chinese EFL learners. *Journal of Pan-Pacific Association of Applied Linguistics*, *16*, 101–121.

Zheng, Y. & Xiao, A. (2024) A structural equation model of online learning: investigating self-efficacy, informal digital learning, self-regulated learning, and course satisfaction. *Frontiers in Psychology*, *14*, 1276266. https://doi.org/10.3389/fpsyg.2023.1276266