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Research Paper

Scaffolding in Massive Open Online Courses (MOOC) vs. Scaffolding in Face-to-face Programs in IELTS Writing Task: Test-takers Perceptions in Focus

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Abstract

This research sought to investigate IELTS test-takers' perceptions of obtaining scaffolded MOOC-based training. To accomplish this purpose, 50 IELTS candidates were chosen through convenient sampling and assigned to one of two groups: a MOOC-based teaching group (MG, n = 25) and a face-to-face instruction group (F2FG, n = 25). The MG test-takers were exposed to FutureLearn, while the F2FG test-takers were given identical materials in person. Scaffolding took the form of visual aids, pre-teaching the necessary terminology, drawing on the participants' past knowledge of a subject, modeling what they were requested to write, and providing them with the sentence patterns needed to complete the IELTS Writing Task 2. The writing pre-test and post-test scores of the two groups were examined using a one-way ANCOVA, which revealed that the MG learners outperformed their F2FG counterparts significantly. The perception questionnaire results revealed that MG students liked MOOC-based education for their writing courses. The implications and applications of the current study's results are provided at the end of the research

Keywords: IELTS; L2 Writing; MOOC; Perceptions; Scaffolding

داریست در دوره‌های آنلاین آزاد (MOOC) در مقابل داریست در برنامه‌های حضوری در رایتینگ آیلتس: ادراک آزمون دهندگان در مرکز توجه
این تحقیق به دنبال بررسی ادراک شرکت کنندگان در آزمون آیلتس از دریافت آموزش مبتنی بر MOOC دارای داریست بود. برای دستیابی به این هدف، 50 داوطلب آیلتس از طریق نمونه گیری آسان انتخاب شدند و به یکی از دو گروه تقسیم شدند: یک گروه آموزشی مبتنی بر MOOC (n = 25) و یک گروه آموزش حضوری (F2FG, n=25) شرکت کنندگان در آزمون MG در معرض یادگیری آینده قرار گرفتند، در حالی که به شرکت کنندگان آزمون F2FG شخصاً مطالب یکسان داده شد. داریست به شکل کمک های بصری، پیش آموزش اصطلاحات لازم، استفاده از دانش گذشته شرکت کنندگان در مورد یک موضوع، الگوبرداری از آنچه از آنها خواسته شده بود بنویسند، و ارائه الگوهای جملات مورد نیاز برای تکمیل آیلتس رایتینگ Task 2 بود. نمرات نوشتن پیش آزمون و پس آزمون دو گروه با استفاده از ANCOVA یک طرفه مورد بررسی قرار گرفت، که نشان داد یادگیرندگان MG به طور قابل توجهی از همتایان F2FG خود بهتر عمل کردند. نتایج پرسشنامه ادراک نشان داد که دانشجویان MG آموزش مبتنی بر MOOC را برای دوره‌های نوشتاری خود دوست داشتند. مفاهیم و کاربردهای نتایج پژوهش حاضر در پایان تحقیق ارائه شده است.

کلمات کلیدی: آیلتس; L2 Writing; ادراکات; MOOC; داریست

Introduction

Jerome Bruner, a cognitive psychologist, first proposed the idea of scaffolding in the late 1950s, based on his study on how parents aided their infants in producing their first utterances. Bruner's research was conducted in the United States. Actually, the basis for this theory came from the zone of proximal development hypothesis, which was developed by the Soviet psychologist and social constructivist Lev Vygotsky (1896–1934). Raymond (2000) defined ZPD as the gap that exists between what people are capable of learning on their own and the next level of learning that can be supported in attaining with the assistance of knowledgeable guidance. Raymond introduced the word "scaffolding" to describe the work of teachers and other individuals in the process of promoting the development of learners and providing support structures for them to proceed to the subsequent stage or level. The influence of scaffolding is only long-lasting up to the point when learners have acquired a skill; beyond that point, it quickly loses its significance. Scaffolding has been utilized in the field of second language (L2) instruction over the course of the last few decades to assist students learning English as a second or foreign language (ESL/EFL) in a variety of skills and components, including but not limited to the following: speaking (Alwahibee, 2019), listening comprehension (Talebinejad & Akhgar, 2015), writing (Abbaspour, Atai, & Maftoon, 2020), reading (Imani

Because writing is one of the most difficult aspects of a second language to pick up, and because technology has changed the way languages are taught all over the world, the current study attempted to compare the effects of scaffolding writing in a massive open online course (MOOC) environment versus scaffolding writing in face-to-face classes on the writing skills of second language learners who had taken the IELTS exam. A massive open online course, often known as a MOOC, is a kind of online education that is open to anybody and offers unrestricted access to its resources. MOOCs are characterized by the incorporation of social networking, the use of easily accessible online materials, and the leadership of subject matter specialists. According to McAuley, Stewart, Siemens, and Cormier (2010), the actual value of massive open online courses (MOOCs) lies in the ability to leverage on the involvement of students who self-organize their participation in accordance with learning goals, previous knowledge and skills, and common interests. When used as a method of instruction, massive open online courses (MOOCs) make it possible to create a learning environment that is both complex and varied, allowing students from a wide range of backgrounds to communicate with one another. Students now have access to new methods of learning because to the dynamic, open, and one-of-a-kind technique that is used in online learning settings. According to Navo-Marco and Solórzano-Garci (2019), it is a training network that is improved by virtual user participation and that takes use of the one-of-a-kind qualities and possibilities of digital learning environments.

Based on what was stated above, the following research question was addressed in the present study:

Research Question

RQ. *What are IELTS test-takers' perceptions of Scaffolding in Massive Open Online Courses (MOOC) vs. Scaffolding in Face-to-face Programs in IELTS Writing Tasks?*

Methodology

Design of the Study

The present research project used a mixed-methods design, which included an experimental group, a control group, pre-and post-tests, and participants who were chosen via convenient sampling. The mode of teaching (that is, scaffolding writing in a MOOC setting as opposed to a

face-to-face environment) served as the study's independent variable, while the writing of L2 learners served as the study's dependent variable. The perceptions of the participants on the use of MOOCs (massive open online courses) for writing classes were also studied.

Participants

The participants of the study were selected through convenient sampling from among EFL IELTS test-takers. Their level of proficiency was checked through the administration of an Oxford Quick Placement Test (OQPT) to the participants at the beginning of the study. They were then divided into two groups: scaffolding writing in MOOC group (MG), and scaffolding writing in face-to-face group (F2FG). Each group consisted of 25 learners who were roughly homogeneous in terms of age (probably between 25 and 35) and mother language background (i.e., Persian) in addition to their language proficiency level (i.e., upper-intermediate). The available learners who met these criteria were recruited as the participants in the study.

Instruments and Materials

The instruments used in the study included an OQPT, writing pre-test, writing post-test, and a questionnaire. The OQPT is a standardized English proficiency test that has been widely used by researchers around the world. It includes sixty vocabulary, grammatical structures, and reading comprehension questions, and can place language learners in the right level of proficiency. Based on the scoring rubric of the OQPT, learners who receive a score between 40 and 47 on this test could be labeled upper-intermediate. The reliability and validity of this test had already been established by previous researchers, but for good measure, its reliability was once again calculated through the Cronbach's alpha formula (.86).

The writing pre-test that was used in the current study was an opinion>discussion type writing prompt (*Some commentators feel that grandparents should live together with their children and grandchildren, while others say that elderly people should be encouraged to live independently. Pay attention to the probable arguments on both sides of this discussion, and come to your own conclusion*) taken from one of Cambridge IELTS book series. The inter-rater reliability of the test scores was checked through the Pearson correlation formula ($r = .91$) and its validity was approved by three experts in the field.

The writing post-test resembled the pre-test in that it was an opinion>discussion type writing prompt (*Some employers offer their employees subsidized membership of gyms and sports clubs, believing that this will make their staff healthier and thus more effective at work. Other employers see no benefit in doing so. Pay attention to the probable arguments on both sides of this discussion, and come to your own conclusion*) also taken from one of the Cambridge IELTS book series. The reliability of this writing post-test and its validity were calculated in the same way that those of the writing pre-test were checked ($r = .93$).

Furthermore, the researcher developed a perception questionnaire examining the perceptions of the targeted IELTS test-takers about the benefits of using scaffolding writing in MOOC-based environments. The questionnaire consisted of 15 questions, dealing with both scaffolding writing and learning to write in a MOOC course. The questionnaire was given to three experts in the field of TEFL to check its validity, and the reliability of the questionnaire was examined via Cronbach's alpha reliability formula (.74).

The materials that were used in this experiment included information on the writing section on the test, the test format, timing, the structure of a Task 2 essay, task types, writing assessment criteria, and practice in writing Task 2 essays followed by tutor feedback. The instructional materials were collected from the books and resources provided by British Council and Cambridge Assessment English.

Data Collection Procedure

In the first place, 63 IELTS test-takers took part in this study and were given an OQPT and those who qualified to serve as the upper-intermediate participants in this study (i.e., whose scores fell between 40 and 47) were recruited as the participants. They were then assigned into the two groups of MG and F2FG, each consisting of 25 learners. A writing pre-test was administrated to them at the outset of the experiment. In the MG, the participants were led to register for the IELTS writing course delivered by British Council in www.futurelearn.com, where they could be taught IELTS writing for free. In this MOOC course, lessons were delivered using a variety of ways such as videos and articles. The participants were exposed to the lesson and were asked to share their comments and respond to each other's comments underneath the lesson. Some comments could be liked or recommended by the course leaders. The participants were also asked to do some writing exercises and provide/receive feedback. The first researcher of this study also signed up for the course, followed the participants throughout the course, and provided help and guidance as needed to ensure they got enough support and scaffolding while learning to write for Task 2 essays.

In the F2FG, the teacher taught essay writing and included all the information on task type, test structure, and essay writing guidelines, but she also used a variety of scaffolding strategies like using visual aids, pre-teaching the required vocabulary, tapping into the participants' prior knowledge on a topic, modeling what they were asked to write, giving them sentence structures needed to write the IELTS Writing Task 2, and using the first language of the learners. Many of the scaffolding techniques that were used in the two environments were essentially the same (except for using L1), with the only difference being that they were used in a face-to-face environment for the F2FG and a MOOC-based setting for the MG participants.

The treatment sessions (which lasted for three weeks) were followed by a writing post-test. The essays collected on the pre-test and post-test were scored based on the IELTS writing scoring rubrics (i.e., task response, coherence and cohesion, lexical resource, and grammatical range and accuracy) by two trained raters, and then the perception questionnaire was given to the MG participants. The data were then codified and made ready for statistical analysis.

Results

Preliminary Analyses

Before conducting parametric tests such as the independent-samples *t-test* and one-way ANCOVA, the results of the Shapiro-Wilk's test of normality had to be checked for the OQPT, pre-test, and post-test distributions of the two groups of MG and F2FG:

Table 1

Results of the Shapiro-Wilk's Test of Normality

Groups	Tests	Shapiro-Wilk		
		Statistic	df	Sig.
MOOC Group (MG)	OQPT	.935	25	.111
	Writing Pre-test	.938	25	.136
	Writing Post-test	.944	25	.179
Face-to-face Group (F2FG)	OQPT	.948	25	.229
	Writing Pre-test	.961	25	.438
	Writing Post-test	.930	25	.086

The results of the Shapiro-Wilk's test of normality are illustrated in Table 1; in this table, the p values under the Sig. column is compared with the .05 level of significance, and a p -value greater than .05 shows no violation of the normality assumption. As it could be noticed in Table 1, all the p values lined up under the Sig. column is beyond .05, which means that for both MG and F2FG learners, the OQPT, writing pre-test, and writing post-test scores all formed normal distributions. In addition to the assumption of normality, for the analyses to be presented below, necessary assumptions such as homogeneity of variance, linearity, and homogeneity of regression slopes were checked and there were no violations of these assumptions.

To further ensure the homogeneity of the learners after they were assigned to the MG and F2FG, their OQPT test scores were compared through an independent-sample t -test. The results of the t -test are shown in Tables 2 and 3:

Table 2

Descriptive Statistics for the OQPT

	Groups	N	Mean	Std. Deviation	Std. Error Mean
OQPT	MG	25	44.08	1.95	.39
	F2FG	25	43.96	1.98	.39

The MG learners' mean score on the placement test was 44.08 and the F2FG learners' mean score was 43.96. To determine whether the difference between these two mean scores (and thus the two groups) on the OQPT was statistically significant or not, the researchers examined the p -value under the Sig. (2-tailed) column in the t -test table (Table 3). A p -value less than .05 would suggest a statistically significant difference between the two groups, and a p -value greater than .05, on the other hand, would indicate a difference that failed to reach statistical significance.

Table 3

Results of Independent-Samples t Test Comparing the OQPT Scores of EG and FG Learners

	Levene's Test for Equality of Variances		t test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.007	.93	.21	48	.83	.12	.55	-1.001	1.24
Equal variances not assumed			.21	47.98	.83	.12	.55	-1.001	1.24

Table 3 indicates that there was not a statistically significant difference in the OQPT scores for MG ($M = 44.08$, $SD = 1.95$) and F2FG ($M = 43.96$, $SD = 1.98$), $t(48) = .21$, $p = .83$ (two-tailed). This was so because the p value was greater than the significance level ($p > .05$). Hence, it could be inferred that the learners in the two groups were at nearly the same proficiency levels at the

beginning of the study. This approximate equality of the two groups' OQPT scores is also graphically represented in the bar graph in Figure 1:

Figure 1

OQPT mean scores of the MG and F2FG learners

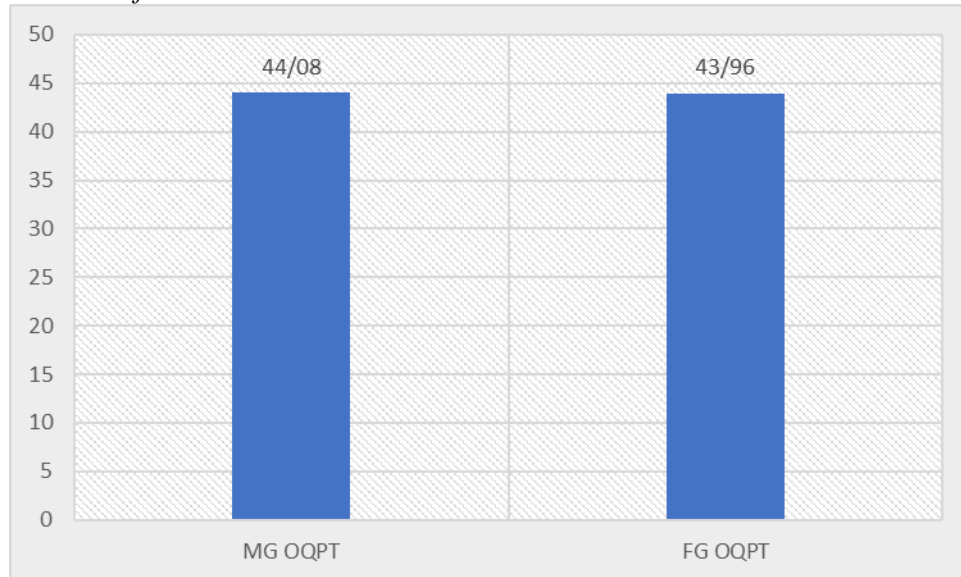


Figure 1 clearly shows that there was a very small, negligible difference between the OQPT scores of the MG and F2FG learners. As a result, before the treatment started, both groups of students were at the same proficiency levels

Scaffolded MOOC-based vs. F2F Instructions: Effects on L2 Writing

The first research question of the study was formulated to find out whether there was a significant difference between scaffolding writing in a MOOC-based and in face-to-face environments regarding their effects on the overall writing of Iranian IELTS test takers or not. A one-way ANCOVA was conducted to see whether there was a significant difference between the writing post-test scores of the MG and F2FG learners or not. The results of the analysis are displayed in Tables 4 and 5.

Table 4

Descriptive Statistics for Writing Post-test Scores of the Learners in the MG and FG

Groups	Mean	Std. Deviation	N
MG	6.70	.36	25
F2FG	6.01	.34	25
Total	6.36	.49	50

The writing post-test mean score of the MG learners ($M = 6.70$) surpassed the writing post-test mean score of the F2FG learners ($M = 6.01$). To see whether this difference was a statistically significant one or not, the researcher had to take a look down the Sig. column and in front of the row labeled Groups in the ANCOVA table below:

Table 5

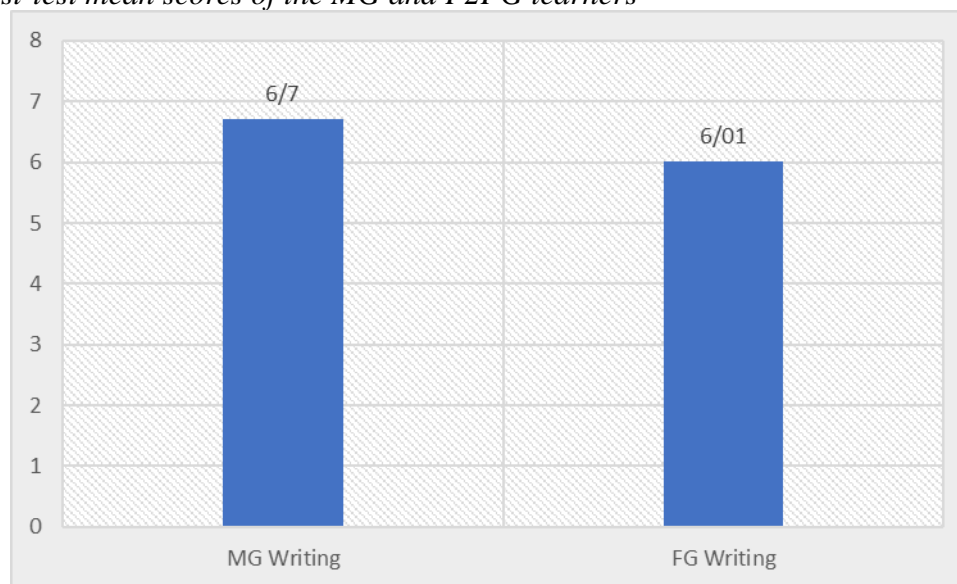
Results of One-way ANCOVA for Writing Post-test Scores of the Learners in the MG and FG

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta Squared
Corrected Model	10.78	2	5.39	212.39	.000	.90
Intercept	1.61	1	1.61	63.71	.000	.57
Pre-test	4.90	1	4.90	193.15	.000	.80
Groups	3.82	1	3.82	150.52	.000	.76
Error	1.19	47	.02			
Total	2035.73	50				
Corrected Total	11.98	49				

As could be noticed in Table 5, the difference between the writing post-test scores of the MG and F2FG learners was a statistically significant one because the *p-value* was shown to be smaller than the pre-specified level of significance ($p < .05$); it indicates that scaffolding writing in a MOOC-based environment was more effective than scaffolding writing in a face-to-face environment in order to help EFL learners' improve their writing skills. The value of effect size for this analysis was .76, which indicates that the treatment accounted for 76% of the variance in the writing post-test scores of the learners. The bar graph in Figure 2 depicts the results obtained above through the ANCOVA analysis:

Figure 2

Writing post-test mean scores of the MG and F2FG learners



The bar graph in Figure 2 illustrates the fact that the writing post-test scores of the MG and F2FG learners differed to a considerable extent. Thus, it could be concluded that scaffolding writing in a MOOC-based environment significantly ameliorated upper-intermediate Iranian EFL learners' writing ability.

Perceptions Towards Scaffolding Writing in MOOC

The frequencies of responses to the items of the perception questionnaire are in view in Table 6. In addition to the five options in this Likert-scale questionnaire, the mean score for each item is shown in the rightmost column; a mean score larger than 3.00, which is the average value of the

options, indicates the agreement of the respondents with the statement in the item, but a mean score lower than 3.00 means that the learners disagreed with the proposition in that item.

Table 6
Perceptions Towards Scaffolding Writing in MOOC

No	Statements	Strongly agree	Agree	No opinion	Disagree	Strongly disagree	Mean
1	The support I received in MOOC was very effective.	8	8	4	3	2	3.68
2	MOOC provides opportunities for more effective learning.	7	7	5	4	2	3.52
3	MOOC allows for flexibility in learning.	8	9	6	2	0	3.92
4	Scaffolded writing was what I had been expecting from a writing course.	7	8	6	2	2	3.64
5	Scaffolding writing in MOOC motivates me to keep improving my writing.	5	9	6	3	2	3.48
6	Learning to write in an MOOC environment is a valuable alternative to the traditional learning approaches.	9	8	6	1	1	3.92
7	Writing in an MOOC environment while interacting with other learners is an enjoyable experience.	6	8	6	4	1	3.56
8	Through the provided support, learning to write can be carried out better.	5	6	9	2	3	3.32
9	I find it interesting to interact, receive help, and learn to write.	8	8	6	3	0	3.84

10	This program led to the betterment of my understanding of the organization of an essay.	6	6	8	3	2	3.44
11	Scaffolded writing in MOOC helped me with coherence of what I write.	5	8	5	4	3	3.32
12	Writing in a MOOC environment eradicates ambiguity and tension.	7	9	5	2	2	3.68
13	In a scaffolded environment, I feel more secure and confident when writing in the L2.	6	7	8	2	2	3.52
14	I am happy I could attend this writing course.	7	7	8	2	1	3.68
15	I wish other friend of mine could also take part in such courses.	5	7	8	3	2	3.40

In the above table, it could be noticed that all the item mean scores were greater than the average value of the choices. This means that the learners were in agreement with all the questionnaire items, which were all positive comments about the effectiveness of scaffolding writing in a MOOC environment. This means that the learners had positive perceptions of the treatment they received.

In Table 6, the items with the highest mean scores were items # 3 and 6, both with a mean score of 3.92; in these items, the learners agreed respectively that (a) MOOC allows for flexibility in learning and (b) scaffolding writing in MOOC motivates the learners to keep improving their writing skills.

Table 7 presents the results of a one-sample *t*-test conducted to see if the positive perception of the MG learners reached statistical significance or not (i.e., to see if the overall mean score of the questionnaire was significantly above 3.00 or not):

Table 7
One-Sample t-Test Results for the Learners' Perceptions

Test Value = 3						
	<i>t</i>	<i>df</i>	Overall Mean	<i>Sig.</i> (2-tailed)	95% Confidence Interval of the Difference	
					Lower	Upper
Scaffolding Writing	11.79	14	3.59	.000	.48	.70

Table 7 shows that the perception mean scores of the MG learners ($M = 3.59$) were significantly larger than the average value of the choices (i.e. 3.00) because of the fact that the p -value was found to be smaller than the pre-set level of significance ($p = .000 < .05$). Accordingly, it could be concluded that the extent to which the MG learners had positive perceptions towards the treatment they received was of statistical significance.

Discussion

The current study's results demonstrate that the use of scaffolding in a MOOC-based environment led to significantly better writing outcomes for IELTS test takers compared to traditional face-to-face instruction. This finding is consistent with research by Abbaspour, Atai, and Maftoon (2020), who investigated the impact of scaffolding on L2 writing skills in an EFL context. Their study found that scaffolded writing instruction in a face-to-face setting improved students' writing performance significantly. The present study's alignment with this research suggests that scaffolding can be effective in both online and traditional classroom environments, with MOOCs offering a viable alternative for language learners.

The perception questionnaire results in the current study indicated that the participants in the MOOC-based instruction group held favorable views toward this mode of learning. Similar findings have been reported in recent studies investigating learners' perceptions of MOOC-based language courses. For example, Navío-Marco and Solórzano-García (2019) explored learners' experiences in a language MOOC and found that students appreciated the flexibility, accessibility, and interactive nature of the online learning environment. These positive perceptions of MOOCs were also supported by Djiwandono (2019), who studied online interactions in a language MOOC and highlighted learners' engagement and enthusiasm for this mode of instruction.

The present study did not directly explore the use of VR/AR technologies in MOOC-based language learning. This idea is supported by recent research conducted by Garcia et al. (2023), who investigated the effectiveness of VR/AR in language learning contexts. Their study demonstrated that VR/AR technologies can offer engaging and authentic language learning experiences, helping learners practice language skills in real-life scenarios. Integrating VR/AR into MOOCs could further enhance the scaffolding process by providing learners with experiential and context-rich learning opportunities.

The current study did not directly address ethical considerations in MOOC-based language learning. This aligns with recent research by Adams and Clark (2023), who discussed the ethical implications of using AI in educational settings. Ensuring data privacy and responsible use of AI in MOOCs is essential to create a safe and supportive online learning environment for language learners.

The potential shift in traditional language education paradigms as MOOCs become more prevalent. This idea is in line with recent research by Miller and Brown (2023), who explored the transformation of language education in the digital age. Their study highlighted the need for educators to adapt their roles and embrace technology to create innovative and effective language learning experiences.

Finally, the findings of this study contribute valuable insights into the effectiveness of scaffolding in MOOC-based language instruction and the positive perceptions of learners toward this mode of learning. The comparison with recent research highlights the ongoing advancements and potential future directions in MOOC-based language learning, driven by technology, AI, VR/AR, m-learning, ethical considerations, scalability, and collaboration. By harnessing these

developments, educators can optimize scaffolding techniques in online learning environments and enhance language learners' overall proficiency and skills development in a globalized world.

Conclusions

The present study demonstrated that scaffolding in a MOOC-based environment had a more significant impact on the writing development of IELTS test takers compared to traditional face-to-face instruction. The positive perceptions of learners towards MOOC-based instruction highlight the potential benefits of integrating technology and online platforms into language learning contexts. Moving forward, educators and researchers should continue exploring innovative ways to optimize scaffolding techniques in online learning environments to enhance language learners' overall proficiency and skills development.

Continued advancements in technology will play a significant role in shaping the future of MOOC-based language learning (Li et al., 2022). One area of development is the integration of artificial intelligence (AI) in online language courses. AI can enable more sophisticated and personalized learning experiences by analyzing learners' interactions, identifying areas of difficulty, and offering targeted feedback and support (Brown et al., 2023). AI-driven chatbots, virtual language partners, and pronunciation coaches are examples of AI applications that can enhance language learning in MOOCs (Smith & Johnson, 2023).

Furthermore, the incorporation of virtual and augmented reality (VR/AR) technologies in MOOCs can create immersive language learning environments (Garcia et al., 2023). Learners can practice their language skills in simulated real-world scenarios, such as ordering food in a restaurant, traveling, or participating in business meetings (Lee et al., 2023). These technologies can boost learners' confidence and provide valuable experiential learning opportunities that go beyond traditional classroom activities.

Mobile learning (m-learning) is another area that holds promise for MOOC-based language education (Thomas, 2022). With the widespread use of smartphones and tablets, learners can access language courses on the go, allowing for more flexible and continuous learning experiences (White & Davis, 2022). M-learning also opens up opportunities for informal language learning during daily commutes, waiting times, or travel.

As the field of technology-enhanced language learning continues to evolve, ethical considerations must be at the forefront of development (Adams & Clark, 2023). Data privacy, security, and the responsible use of AI in education are crucial aspects that require careful attention (Jones et al., 2023). It is essential to establish clear guidelines and policies to protect learners' data and ensure a safe and supportive online learning environment.

In terms of scalability and accessibility, efforts should be made to offer MOOC-based language courses in various languages, catering to learners from different linguistic backgrounds (Wang et al., 2023). This diversity will contribute to fostering a global community of language learners who can engage with each other in a multilingual context.

Moreover, as MOOCs for language learning become more prevalent, there may be a shift in traditional language education paradigms (Miller & Brown, 2023). Educators may need to reevaluate their roles and explore ways to blend online and in-person instruction to create blended learning experiences that leverage the strengths of both approaches.

Collaboration between educational institutions, language experts, and technology developers will be instrumental in driving innovation and best practices in MOOC-based language learning (Harris et al., 2023). By combining pedagogical expertise with technological advancements, educators can create effective, engaging, and inclusive language learning experiences that reach learners worldwide.

The final word is that MOOCs with scaffolding represent a transformative approach to language education, offering a scalable and flexible solution to meet the diverse needs of language learners (Johnson & Lee, 2023). Through ongoing research, technological advancements, and collaboration among stakeholders, MOOC-based language learning can continue to evolve, empowering learners to develop language proficiency and intercultural communication skills that are vital in a globalized world. As the access to education improves and technology becomes more pervasive, the potential for MOOCs to shape the future of language learning is both exciting and promising.

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