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MOOCs for EFL learners: Challenges, motivation, and engagement through the lens of expectancy-value and socio-cognitive theories

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Abstract

Massive open online courses (MOOCs) are well-known for offering flexible learning; however, they also pose challenges for English-as-a-foreign-language (EFL) learners, particularly in maintaining motivation and engagement in such self-paced learning online courses. This study explored the factors influencing EFL students' participation in a MOOC through the lens of Expectancy-Value Theory and Socio-Cognitive Theory. Employing a qualitative design, involving 31 EFL students from a private university in the Mekong Delta enrolled in a public speaking MOOC, the study collected data of 20 reflective journals and 12 semi-structured interviews from these participants. The data was analyzed using reflexive thematic analysis. The findings revealed that student engagement increased when learners expected success, perceived the course as valuable, and employed self-regulated learning strategies. Motivation was sustained through goal setting, time management, and persistence; however, language barriers, technological issues, and social isolation impeded learning. Despite these obstacles, students use goal setting, time management, and persistence to sustain motivation. Expectancy–value theory (EVT) explains how perceived value and expectations of success shape engagement, whereas social cognitive theory (SCT) emphasizes self-efficacy and self-regulation as key drivers of motivation. These findings can inform educators, curriculum designers, and policymakers in developing more supportive online learning environments. Alongside recommending inclusive instructional strategies, including linguistic support, interactive content, and community-building, the study urges research into the long-term effects of SRL strategies and the effectiveness of SRL-based training for EFL learners in varied MOOC contexts.

Keywords: MOOCs, EFL students, motivation, engagement, higher education

Introduction

Massive Open Online Courses (MOOCs) have captured the attention of higher education institutions since 2012 (Waks, 2016, 2019), offering global learners ample opportunities for knowledge and skills development (Despujol et al., 2022; Zaremohzzabieh et al., 2022). However, research shows that MOOCs often face high drop-out rates, low completion rates, and varying levels of student engagement across different types of learners (Reich & Ruipérez-Valiente, 2019). These challenges are even more noticeable among EFL learners, who often have different levels of English proficiency, making it harder for them to understand course content and participate in activities like video lectures and discussion forums in MOOCs (Yaşar, 2020). Therefore, identifying the factors that affect learners' success in MOOCs, particularly understanding what motivates and engages EFL learners in online learning, is key to improving their outcomes (Liu et al., 2024).

Among the key factors, motivation and engagement stand out as particularly important constructs. Motivation is coined as the internal drive or impetus that influences a learner's decision to be immersed in and persist with a learning activity. Motivation includes both intrinsic drive (such as personal interest or enjoyment) and extrinsic type (i.e., such as external rewards or career advancement) (Deci & Ryan, 1985). Engagement, on the other hand, refers to the external demonstration of student participation during the learning process. It is demonstrated by students' behavioral, cognitive, and emotional aspects of learning, such as time spent on tasks, mental effort, and emotional connection to the content (Fredricks et al., 2004).

The current research is grounded in Expectancy-Value Theory (EVT) and Socio-cognitive Theory (SCT), dealing with the motivation and engagement of EFL students in MOOCs in the Mekong Delta, where MOOCs are relatively new to both students and faculty (Dang et al., 2017). The status quo of modest adoption can be attributed to several factors, including but not limited to perceived usefulness, ease of use, and social influence, which can be influenced by awareness and low promotion of MOOCs in this education setting (Ho et al., 2023). Efforts to introduce and integrate MOOCs into the curriculum are still in progress; emphasizing the need for increased awareness and joint support to maximize the potential of MOOCs in meeting diverse student population and augment educational outcomes in Vietnam (Dinh, 2024).

Integrating these two theories is particularly appropriate for this study. Specifically, EVT explains motivation by focusing on expectancy and value, which are crucial for EFL learners with varying confidence levels and perceptions of the relevance of MOOC content (Wigfield & Eccles, 2000). In other words, it shows how an individual's expectations of success and the value they assign to a task affect their motivation (Eccles & Wigfield, 2002).

Socio-cognitive Theory (SCT), focusing on self-regulation and self-efficacy, complements EVT by examining how students self-regulate their learning processes and remain motivated despite difficulties. More specifically, this theory indicates that confidence of learners in their own abilities, goal setting, and interactions with their learning environment influence their engagement and academic performance.

The use of both EVT and SCT equips this study with a broader analytical lens for investigating the motivational and engagement difficulties EFL students encounter in MOOCs and the methods they employ to cope with them. To achieve these aims, the following two research questions were formulated:

(1) What challenges do EFL students face in maintaining motivation and engagement in MOOCs, and what strategies do they employ to overcome these challenges?

(2) How do the Expectancy-Value Theory (EVT) and Socio-Cognitive Theory (SCT) explain the interplay of the factors influencing EFL students' motivation and engagement in MOOCs?

Literature review

MOOCs and EFL Learners

MOOCs have brought new opportunities for EFL learners, though they also posed challenges, especially regarding engagement and motivation. Recent years have witnessed a steady growth of online learning (U.S. Department of Education, National Center for Education Statistics, n.d.), which indicates a need to understand how MOOCs can best support EFL learners, especially in terms of meeting their unique needs. Prior research has highlighted a demand for tailored interventions (Abbasi et al., 2023; Hoang, 2024).

Understanding the unique challenges and needs of EFL learners within MOOCs is essential for developing online learning environments that can effectively support learners' success. The creation of sustainable and engaging MOOC platforms is expected to enhance the engagement and academic performance of EFL learners, as shown by Han et al. (2021) and Kuswoyo et al. (2022). In recent studies, Rahimi and Mosalli (2024) found that learners who have a strong future self-image and digital self-authenticity are more motivated to take part in online language learning. Similarly, Rahimi and Cheraghi (2024) stressed the need to better understand the psychological factors that impact EFL learners in MOOCs, particularly those related to language learning skills.

These studies emphasize the importance of recognizing the challenges EFL learners face in MOOCs in order to develop effective online learning environments. In other words, the success of EFL learners in MOOCs depends on addressing their specific challenges through carefully crafted online learning strategies.

The Expectancy-Value Theory (EVT) and Its Application in MOOCs

Eccles and Wigfield (2002) posit that Expectancy-Value Theory (EVT) suggests that individuals' self-efficacy beliefs regarding task performance influence the importance they assign to its accomplishment. This theoretical framework elucidates decision-making, perseverance, and drive by incorporating the evaluation of associated costs. Motivation levels increase when individuals have confidence in surmounting obstacles through their skills and strategies, particularly when they believe that the benefits of achieving goals outweigh the costs incurred. EVT has been used in various fields, including language learning (e.g., Sun et al., 2023), physical education (e.g., Shang et al., 2023), and mathematics (e.g., Fong et al., 2023).

To further explore the role of contextual factors, Eccles and Wigfield (2020) expanded EVT to the Situated Expectancy-Value Theory (SEVT), which focuses on how learners' performance and value perceptions are influenced by specific contexts. SEVT examines the impact of situational and cultural factors on expectancy and value and their correlations with performance, choices, and engagement. This perspective is highly relevant for MOOCs, where learners are often supposed to steer and adapt their learning paths in a self-paced and autonomous learning environment. Understanding this transition can help educators design targeted interventions to boost motivation and reduce dropout rates.

Expectations of Success

Previous studies demonstrate that students who believe in their success exhibit greater engagement and resilience when confronted with obstacles (Handoko et al., 2019; Wigfield & Eccles, 2000). In the context of Massive Open Online Courses (MOOCs), factors such as prior exposure to online learning, perceived proficiency, and goal-setting strategies play a particularly important role in shaping these expectations.

Studies by Yokoyama (2024) indicate that expectations in online education are influenced by self-efficacy and past successes, where previous achievements boost confidence in future performance. Furthermore, setting clear and achievable goals is crucial for raising expectations, which motivates active involvement and persistence in MOOCs (Handoko et al., 2019).

Perceived Value

Value in education is a multifaceted construct encompassing intrinsic value (enjoyment and interest), attainment value (importance of performing well), utility value (usefulness for future goals), and cost (perceived effort and time). Research shows that a high perception of value in educational activities boosts student motivation and dedication, particularly when course content aligns with their career goals, personal interests, and skill development in MOOCs (Eccles & Wigfield, 2002; Ram et al., 2024).

Utility value, especially in career development, strongly motivates students to engage in MOOCs (Schunk & DiBenedetto, 2020; Wei et al., 2024). Interest and enjoyment, which fuel intrinsic motivation, are major factors in students' decision to participate in MOOCs (Dong et al., 2023; Jones et al., 2006). On the other hand, the perceived costs, like effort and time, can reduce motivation, highlighting the need to balance these aspects to sustain student engagement (Alyoussef, 2023; Francis et al., 2019; Hartnett et al., 2011).

Application of EVT in MOOCs

Recent studies highlight the significance of Expectancy-Value Theory (EVT) in online education. Research by Joo and colleagues (2011) found that students' self-efficacy and perceived utility play a crucial role in their continued use of online course materials for educational improvement. Similarly, Hartnett et al. (2011) noted task value and intrinsic motivation as key factors that influenced student participation in web-based courses. Further studies by Xie et al. (2006) and Vo and Ho (2024) reinforced these findings by demonstrating that expectancy, value, engagement, and overall performance are significant predictors of ongoing course participation. Additionally, the findings from Sun et al. (2023) indicated that students' motivation and engagement in MOOCs increased when they appreciated the values of the courses in terms of credibility, relevance, and effectiveness.

Applying EVT to the analysis of MOOCs underscores the importance of students' anticipated achievement and perceived value, which are critical for effective participation and persistence. Educators can enhance motivation and course completion rates by focusing on these expectations and values. This can be achieved by setting clear goals, offering timely and constructive feedback, and emphasizing how the course content applies in real life (Lan & Hew, 2020; Lee et al., 2020). Promoting SMART goals, that is specific, measurable, achievable, relevant, and time-bound, helps learners set and meet clear targets. Additionally, timely feedback, as highlighted by Hattie and Timperley (2007) and Wu and Gao (2018), boosts learners' self-confidence and belief in their ability to succeed.

In addition, educators should set up the course content of MOOCs by reflecting on the career goals and interests of their students to further increase the perceived value of those courses. Integrating real-world case studies and practical applications can highlight the utility of the course (Rahimi, 2024), while designing engaging and interactive content can promote intrinsic motivation by capturing students' interest and enjoyment (Mohan et al., 2020; Ryan & Deci, 2000a).

Social-Cognitive Theory (SCT) and Its Application in Online Learning

Socio-cognitive theory, as advanced by Albert Bandura (1986), proposes a comprehensive framework in which students' motivation and engagement in MOOCs. This theory explains how personal, behavioral, and environmental factors interact to shape learning outcomes.

Recent research has emphasized the significance of socio-cognitive theory in understanding self-regulated learning (SRL) in MOOCs. Vilkova (2022) found that self-efficacy, personal goals, and outcome expectations are crucial for success in e-courses. Previous studies identified self-efficacy as a strong predictor of academic success, in which increasing confidence results in an enhanced degree of commitment and resilience toward meeting challenges (Dinh & Phuong, 2024). The lack of immediate teacher support in MOOCs further encourages self-reliance and proactive engagement, aligning with socio-cognitive theory.

Personal Factors

Personal factors include cognitions, beliefs, perceptions, and emotions. Among the personal factors that exert an influence in an MOOC environment, a prominent role is played by academic self-efficacy, which represents students' confidence in their capacity to achieve success. Lan and Hew (2020) have recently demonstrated that higher self-efficacy is a predictor for better engagement and persistence. According to Zajda (2023), self-efficacy varies across different social contexts and has significant effects on learning behaviors.

Self-efficacy fosters the desire in students to set challenging goals, persist in the face of difficulties, and engage deeply with learning materials. Hodges (2008) defined self-efficacy as a predictor of student success in online courses. Kizilcec et al. (2017) showed that self-regulated learning strategies predict behavior and goal attainment in MOOCs. The results suggest that specific measures to enhance self-efficacy may improve academic achievements for students participating in MOOCs.

Behavioral Factors

Behavioral factors encompass activity choices, effort, persistence, and engagement, which are crucial components in determining how students approach and sustain their learning efforts in digital environments (Ryan & Deci, 2000b; Jeno et al., 2022). In MOOCs, students' engagement levels and their persistence in completing tasks are critical behavioral components. Behavioral factors such as persistence and effort, influenced by self-regulation and self-efficacy, strongly predict students' success and performance. The study by Schunk and DiBenedetto (2020) argued that setting specific, measurable, achievable, relevant, and time-bound (SMART) goals helps students maintain motivation, hence facilitating the attainment of educational objectives. Constructive and timely feedback helps increase students' belief in their ability to succeed, hence increasing their persistence and effort (Wei et al., 2024). Achievement, therefore, should be seen as the result of engagement and motivation, which are behavioral factors, rather than as a behavioral factor itself.

Environmental Factors

Recent studies emphasize the critical role of environmental and system-level conditions in the success of MOOCs. Rather than instructional mechanisms, Zaremohzzabieh et al. (2022) show, via a meta-analytic structural model, that performance expectancy, effort expectancy, attitude toward MOOCs, and task-technology fit directly shape students' behavioral intention to continue using MOOCs, while social influence and facilitating conditions also play important roles in adoption and continued use. Complementing these adoption factors, Yang and Lee (2021) note that the quality of information and system services, together with gamification-supported social interaction, sustain participation and performance. Likewise, Wu (2021) and Er et al. (2020) highlight how motivation and engagement can be fostered by a supportive learning environment which features discussion forums, peer reviews, and interactive content. Furthermore, Rahimi (2024) further finds that motivation and engagement are significantly enhanced when course content aligns with learners' personal or professional goals. Collectively, this work underscores the need to ensure that MOOCs are useful, easy to use, well-fitted to learners' tasks, socially supported, and pedagogically interactive, and that course objectives align with learners' real needs and applications.

Recent Studies on SCT in Online Learning

Recent academic research has supported the application of Social Cognitive Theory in computer-based educational settings. Usher and Pajares (2008) found that social modeling, mastery experiences, and social persuasion were strong predictors of students' beliefs in their own abilities, after examining the factors influencing self-efficacy in traditional classrooms. A recent systematic review paper by Li et al. (2023) showed that the primary factors influencing students' self-efficacy are mastery experiences, social modeling, and social persuasion. Applying or incorporating these findings into the design of massive open online courses (MOOCs) can facilitate the integration of these components into instructional materials.

Prior research has predominantly focused on self-efficacy and social presence in virtual educational settings (e.g., Vo & Ho, 2024). The results indicated that cultivating high levels of self-efficacy and social presence could greatly enhance student engagement and satisfaction (Miao & Ma, 2022; Wu, 2023). In essence, these studies suggest the importance of creating community-building and social interactions within MOOC platforms for more learning engagement and satisfaction.

Integration of EVT and Socio-Cognitive Theory for the exploration of students' engagement and motivation in MOOCs

The integration of Expectancy-Value Theory (EVT) and Socio-cognitive Theory provides a useful framework for explaining motivation and engagement in EFL students within MOOCs. EVT highlights the role of students' expectations and the value they assign to the content, which is particularly important for EFL learners who may have diverse levels of confidence and differing perceptions of the content's relevance (Eccles & Wigfield, 2002). Socio-cognitive Theory builds on the principles of self-efficacy and self-regulation, complementing EVT by explaining the processes and strategies students use to handle, control, or regulate their learning processes, as well as maintain motivation during challenges (Bandura, 1986; Zimmerman, 2000). Finally, the incorporation of motivational theories such as EVT and socio-cognitive theory regarding the participation and success of EFL students enrolled in MOOCs has not been sufficiently explored in the existing literature. Addressing these gaps will therefore provide deeper insights into the factors affecting the motivation and engagement of an EFL learner, leading to the development of more effective and supportive online learning environments.

Methods

Participants

Thirty-one second-year participants in this study enrolled in a globally accessible MOOC titled Advanced Presentation Skills on Coursera, which was part of their curriculum at a private university in the Mekong Delta. The university purchased access for a group of 31 students, with certificates awarded upon completion. These students come from diverse provinces in the Mekong Delta, studying in the same English discipline class, and have learned 2-3 MOOCs in the previous semesters. Data were collected through semi-structured interviews conducted at the end of the course and weekly diaries kept the MOOC. Of thirty-one participants, fifteen completed six diary entries, twenty completed five entries, while eleven stopped submitting their diaries after the second entry, even though they continued to study in the MOOC for another month and a half. As a result, their diaries were excluded from the analysis. Twelve participants volunteered for the semi-structured interviews. To ensure the participants' confidentiality and privacy, we used pseudonyms (e.g., Participant 1, Participant 2) instead of their real names in the findings section.

Data Collection

Prior to conducting the research, I obtained the Ethical Clearance from the Dean of the Faculty where the research was conducted. Reflective journals were collected during the participants' learning in the MOOC, while individual semi-structured interviews were conducted after they had taken the end-course exam for the MOOC. The interviews helped unveil students' experiences with MOOCs, their expectations of success, the perceived value of the courses, and the challenges they faced, while the diaries provided ongoing and insightful reflections on their learning processes and motivational factors that might occur.

The employment of both interviews and diaries allowed for a richer and more detailed understanding of the participants' experiences (Thille et al., 2022), specifically their engagement and learning experiences in MOOCs.

Piloting reflective journals

The reflective journal was piloted with five voluntary students in the first week of August 2024 to identify potential problems. They were encouraged to contact the researcher with any questions and to elaborate in Vietnamese if preferred for ease of expression. All five participants completed the report without queries. Subsequently, the entire group was encouraged to share their experiences weekly. I sent reflective journal forms via Google Forms, clarifying that completing them was optional but emphasizing the benefits of writing reflection of their learning in the MOOC for the final-course exam. Unexpectedly, 11 participants discontinued their reflective journaling before completing the MOOC. While the exact motivation whether driven by the prospect of exam benefits or a sense of obligation was unclear, they were aware that, under school regulations, their final exams would be evaluated by other teachers. I believe twenty participants completed five reflective journals for their own benefit.

Piloting the interview questions

Before data collection, interview questions were piloted to gather feedback and improve the interview protocol, thereby enhancing the validity and reliability of the research. In mid-October 2024, two participants, who had completed several diaries, were interviewed via Microsoft Teams in Vietnamese. They used avatars instead of cameras and were informed of their right to withdraw at any time. The researcher introduced the interview's purpose, length, key contents, and participants' rights before starting.

The first interview lasted around 35 minutes and was less detailed and fluid. The second interview, which was nearly 45 minutes long, yielded more information and had a smoother flow. These pilot interviews were valuable in helping the researcher improve their skills in prompting further questions, ensuring clarity, and capturing participants' views on what influences their motivation and engagement in MOOCs. This stage was key to improving the interview technique and deepening the understanding of participants' viewpoints.

Data Analysis

To analyze the diary and interview data, the author employed the reflexive thematic analysis which involved data familiarization, initial code generation, theme searching and reviewing, and final theme definition and reporting (Braun & Clarke, 2006, 2019). The data from reflective journals and the semi-structured interviews (conducted in Vietnamese and then translated into English) were analyzed separately. The interview transcriptions

were sent back to participants for verification and cross-checked by colleagues to ensure accuracy and clarity. This careful process of comparing and contrasting the findings from both data types ensured a thorough and evolving analysis.

To guarantee the reliability and validity of the data, several rigorous steps were implemented. Semi-structured interview protocols helped ensure consistency across all interviews, while detailed instructions and prompts for diary entries helped maintain uniformity in participant reflections. Interview schedules, diary entries, and analysis procedures were documented for transparency and replication purposes based on Shenton's (2004) recommendations. Continuous comparison of codes throughout the analysis ensured consistency, as suggested by Saldaña (2013). Moreover, to ensure the research validity, firstly, member checking (Birt et al., 2016) was employed. Particularly, initial findings were sent to the participants for confirmation. Additionally, prolonged engagement between the researcher and participants helped build trust, hence improved the participants' in-depth and authentic accounts, ultimately enhancing the study's credibility (Lincoln & Guba, 1985).

The analysis included data from 20 students' diaries and 12 interviews. The initial analysis of all diaries was to identify common themes and patterns of the students' experiences. Subsequently, a more focused and detailed analysis of the diaries and interviews of the 12 participants provided deeper insights into how these strategies were perceived and implemented. This dual approach facilitated both a wide-ranging understanding of the challenges the EFL students face in maintaining motivation and engagement in MOOCs and the strategies they employ to overcome these challenges.

Findings

Through the analyses of the interview and diary data, the findings revealed seven themes that portray students' engagement and motivation during their learning in a MOOC in light of the Expectancy-Value theory and Social Cognitive theory.

RQ1: What challenges do EFL students face in maintaining motivation and engagement in MOOCs, and what strategies do they employ to overcome these challenges?

Challenges students encountered in MOOCs

Language Barriers: Both data from the interviews and diaries revealed that students faced the significant challenges due to language barriers when learning in English-only environments like MOOCs, even though the participants in the study were the second year English majors. For example, Participants 3 and 4 mentioned that they struggled with specialized vocabulary and extensive reading in English. Participant 4 stated in her diary,

"*Language was a big challenge for me because there were many technical terms that I was not familiar with" while Participant 3 shared in his interview, "I had difficulty with English courses because I am not a native speaker*."

Technological and Pedagogical Innovations: Another common obstacle was the access to technology and stable internet connections when studying in MOOCs. Students reported experiencing technical problems, such as internet connectivity issues, which disrupt their study sessions and affect their learning continuity. Participant 20 took notes in her diary, "*Sometimes I have problems with the Internet connection when studying online, i.e. the connect sometimes was low which lost the work I was doing, which sometimes made me go mad.*" Participant 7 shared similar emotion in her interview when she experienced unstable connection which interfered with her study plan. These two samples illustrated the essentiality of reliable technological infrastructure, especially when online learning is a must.

The findings also emphasized the importance of educational technologies and innovative pedagogical approaches in engaging students in online learning, and so affected their learning outcomes. For instance, Participant 4 appreciated the interactive nature of Coursera's platform, which included quizzes and the discussion sections. She stated, "*I think the lessons in Coursera with interactive quizzes and discussion forums are useful because they make me involved more in the learning process and better understand the content*".

Isolation: The lack of timely and responsive support from instructors and peers in MOOC environments normally lead to feelings of being isolated. The findings from both interviews and diaries indicated that the absence of direct feedback diminished their motivation and made it challenging to self-assess progress accurately. Participant 7 expressed in his diary, "*Online learning lacks direct interaction with teachers and friends, reducing interest in learning.*" Participant 8 also shared in the interview that they rarely evaluated their learning due to limited or no feedback from counterparts, hence they faced difficulty in assessing the effectiveness of their performances in MOOCs. In other words, students may find it challenging in self-evaluating without external scaffolding, such as from their course-mates or the course mentor.

Challenges in Active Learning and Knowledge Construction

Alongside the "*worldwide*" challenges mentioned above, students also encountered internal challenges. Participant 15 mentioned the difficulty of staying motivated and focused when studying alone. She said, "*I often feel bored and can't concentrate when studying alone in MOOCs*". Besides, lengthy video lectures also contributed to students' motivation decline. Participant 18 pointed out that the length of video lectures sometimes made it hard to stay engaged. She remarked, "*Sometimes the videos are too long, and it becomes hard to stay*

focused". These accounts underscore the fact that MOOCs should integrate interactive activities and allow opportunities for social interaction, as well as break down contents into shorter ones to motivate students, keep them engaged, and improve their knowledge retention.

Self-Regulated Learning (SRL) Strategies to Overcome Challenges

The participants' journals and the ideas shared in the interviews highlighted several SRL strategies that helped them tackle the challenges faced in a self-regulatory learning environment such as MOOCs. The following were three significant strategies emerging from these data.

Goal Setting: Establishing clear, achievable goals is a fundamental SRL strategy that aids in navigating MOOCs successfully. Goal setting was identified as a frequently employed strategy that students leaned on to enhance their learning self-efficacy and to manage the workflow of the coursework. For instance, many students revealed that setting goals with the SMART framework helped them stay organized and focused, which in turn solidified their belief in their ability to succeed, monitor the learning process, and achieve their goals. They noted in their diaries:

> *Setting SMART goals helps me to know that the goal is feasible or concrete to my context; besides it helps me focus on what's important and measure my progress effectively. (Participant 6)*
>
> *In this week, Time-management and Setting goal Strategies are my choices to support my study. For example, there are a lot of things to do on Coursera in this week so I have a plan for each time I study and how long it will take each time. Besides, I also set a goal for myself to finish as quickly as possible so that I can spend time on important assignments of other subjects. (Participant 3)*
>
> *This week, I applied the Goal Setting and Planning strategies to increase my learning experience in the MOOC of SSC302c. For example, I established a goal to complete the readings and watch the all video lectures of Week 5, Course 3. (Participant 5)*

Time Management: Both interviews and diaries highlighted the importance of organizing study time. Many participants emphasized the value of effective time management, which is critical for balancing their participation in MOOCs with other commitments. For instance, Participant 2 mentioned, "*I prioritized the important contents and allocated specific times to them, which helped me stay organized and focused*". This learning schedule priority not only boosted her confidence but also improved her performance in MOOCs. Participant 1 shared her strategy of dedicating weekend evenings to coursework, saying, "*I usually studied on Saturday and Sunday evenings because that was my free time.*" Participant 6

even made a more consistent plan for her study, she added "*I made a weekly study plan to ensure that I would not miss any lessons or deadlines.*"

Active Learning and Knowledge Construction: Alongside those strategies, active learning strategies, for example, taking detailed notes, completing quizzes, and integrating new concepts with prior knowledge, were frequently reported as essential for constructing lesson understanding. Among interviewed students, Participant 3, for example, explained, "*Taking notes helps me organize my thoughts and remember key points, while quizzes test my knowledge and keep me engaged*". In the meantime, Participant 1 discussed how integrating new concepts from her MOOC on digital marketing with her previous work experience was useful. She noted, "*Relating new strategies to my existing knowledge from work helps me understand and apply them more effectively*". From a constructivist perspective, the amalgamation of the new information with pre-existing knowledge stands as a fundamental component, underscoring the proactive involvement of learners in shaping their comprehension and building up their knowledge.

Self-Evaluation: Regular self-evaluation aids students in tracking their development and pinpointing areas for enhancement. Participants 9 and 10 highlighted in their diaries the importance of reviewing completed assignments and evaluating their understanding after each lesson. One of them wrote, "*After each lesson, I regularly I thought back about my performance to see if I have understood the lesson and which parts I needed to review.*" This account not only showed students' active engagement in autonomous learning, but also emphasized the importance of continuous self-evaluation.

RQ2: How do the Expectancy-Value Theory (EVT) and Socio-Cognitive Theory (SCT) explain the interplay of the factors influencing EFL students' motivation and engagement in MOOCs?

Expectations of Success

Prior Experience: Expected results from the previous online courses inspired and boosted students' confidence and expectations of success in future MOOCs. Insights from both interviews and diaries indicated that initial difficulties with online learning were mitigated over time when students became more and more familiar with the format or the learning environment. Participant 30 stated in her diary, "*Experience from previous courses truly helps me feel more confident when learning in this new MOOC.*", while Participant 6 emphasized in her interview that initial struggles gave way to her increased confidence and better performance in subsequent courses.

Confidence Levels: High self-efficacy and confidence are linked to greater engagement and satisfaction in MOOCs. Some students agreed that confidence in tackling challenges encouraged them to actively participate in the course activities. Participant 9 documented

in his diaries, "*Feeling confidence inspires me that I am able to overcome difficulties in the learning process*". Other students unveiled in the interviews that the confidence in their capacity to excel in MOOCs had a noteworthy impact on their level of involvement and continuous effort. For example, Participant 20 expressed a clear sense of readiness for the coursework and believed that setting clear goals helped her manage her time effectively. She shared in the interview, "*I set specific goals for each course. Although it took time at first, for example, completing a module by a certain date, this practice keeps me on track and prevents me from feeling left behind the set milestones.*" This expectation of achievement is in accordance with the Expectancy-Value Theory (EVT) which argues that students who hold the belief in their capabilities to succeed are prone to immerse themselves in the learning materials.

Resilience to overcome content difficulties: A recurring theme in the diaries was the difficulty of maintaining persistence; however, students recognized the importance of perseverance. They consciously applied persistence strategies, even when feeling discouraged or stressed, and made concerted efforts to push through moments of fatigue and lack of understanding. The resilience exhibited by the individuals not only facilitated their academic persistence but also bolstered their capacity for self-regulation and adjustment to the academic requirements. Participant 3 highly evaluated the role of goal setting in managing his coursework. He described it in detail in the interview:

> *I set specific goals for each module before commencing each course, and try to complete them ahead of deadlines to reduce workload stress and ensure I have enough time for the review.*

This proactive approach allowed him to manage his workload efficiently and maintain high levels of engagement. Other two participants noted in their diaries, sharing their solutions to obstacles they encountered when learning in the MOOC:

> *When facing language difficulties, I usually use Cambridge or Google Translate to translate into Vietnamese for easier understanding. If the content is difficult and I don't understand, I ask friends for discussion. (Participant 5)*
>
> *I applied the Persistence strategy because I felt discouraged when studying and didn't want to continue, but I tried to persevere to complete the course. (Participant 8)*

However, some admitted the hindrance of dealing with tough lessons, one of them noted:

> *I found difficult to overcome challenges while studying, and I think I didn't try hard enough and have to put in a lot of effort while studying, but when I felt stressed or didn't understand [lessons] for a long time, I started to get bored and quit until I felt ready again, which caused long interruptions before I continued. (Participant 7)*

Perceived Value of MOOCs

Many students were highly aware of the merits of knowledge gained in MOOCs thanks to their devoted time and value-laden attachments of MOOCs. Therefore, the perceived value of MOOCs for career advancement and skill development was found as a recurrent theme among the participants. The perceived value of MOOCs for career advancement and skill development was a recurrent theme among the participants. When being asked about the value of learning in MOOCs to them, Participant 11 shared this in her interview, "*I see MOOCs as a valuable opportunity to gain new skills and certifications that can enhance my career prospects*". This response showed the participant's perception of MOOC utility value, which in turn motivated her to invest time and effort into completing the courses. In a similar way, Participant 19 noted the engaging and relevant MOOC content and emphasized its usefulness for applying knowledge to real-world contexts. She explained, "*Most videos are easy to understand and include examples that help me grasp the material better. This makes learning more interesting and applicable to real-world situations*". This intrinsic value, coupled with the perceived importance of the courses, increased her motivation and engagement.

Intrinsic Value: Personal interest (such as improving career prospects, exploring new hobbies, or pursuing specialized knowledge) and enjoyment (i.e., the flexibility of self-paced learning, interactive multimedia lectures, or engaging peer discussions) and enjoyment derived from MOOCs significantly influence student engagement. Both interviews and diaries reflected this sentiment, with students finding MOOCs interesting and meaningful. Participant 19 documented in his diary, "*The courses of this MOOC were very interesting and meaningful to me,*" while Participant 8 shared a similar comment in her interview, she noted, "*In addition to improving my communication skills, I also know how to manage time and set goals to achieve my goals.*" These reflections demonstrated their appreciation for the new knowledge and practical content of the current MOOC and how it contributed to their learning.

Utility Value: Perceived value and applicability of MOOCs, particularly for professional growth, were found as crucial factors influencing students' perceive values of MOOCs. Several of them expressed these perspectives in their diaries and interviews that MOOCs offered valuable opportunities for improving job prospects and gaining relevant skills for their future careers. Participant 5 wrote, "*I think that these courses improved my skills, such as I could organize my timetables better so that I didn't miss or had to rush up for deadlines. I hope these will be helpful for my future career*" while Participant 10 shared a similar point of vew, "*[I believe] skills and knowledge I gain from these courses help me have a wide chance of getting a job in the future*". Based on these reflections, it is logical to conclude that students' perceived benefits of the learned skills and certifications through MOOCs for

career prospects are in line with EVT's focus on the significance of task value in motivating students.

Extrinsic Motivation and Attainment Value

Extrinsic Motivation: Extrinsic motivation, particularly related to career goals, also plays a crucial role in student engagement. Interviews and diaries consistently emphasize the utility value of MOOCs in improving essential skills such as presentation and English proficiency. Participant 8, for instance, stated, "*I believe that the current MOOCs I am taking will improve my presentation skills and English as well, the two essential skills for my future job*." Participant 10 added, "*My goal was to complete this course to improve my resume as well*", demonstrating how students view these courses as a means to enhance their job prospects and strengthen their resumes.

Attainment Value: Alongside the beliefs of MOOC values for career advancement, another external drive also motivated them to study harder. Both interviews and diaries emphasized this, with students like Participant 16 and Participant 17 stating that achieving good results was a key goal. Participant 16 expressed, "*I wanted to achieve the best results possible in my courses to enhance my profile.*" These ideas show that the pursuit of high grades acts as an external incentive that drives EFL students to achieve better results in online courses.

Motivation and Engagement

Intrinsic Motivation: In their interviews and diary entries, students who found the course content engaging tended to sustain their learning efforts and achieve higher levels of performance. For example, Participant 6 mentioned in her interview that the engaging and practical value of the MOOCs facilitated her learning. She wrote, "*Although the spec is quite long, including four courses, the course content is quite easy to remember and relevant to the skills we need to improve, that is presentation, which really inspired me to learn harder*." This response implies that when learners perceive course materials as meaningful and applicable, they will pay more heed to the learning, and so their comprehension improves. In this case, the perceived relevance of the content appears to have fostered intrinsic motivation, leading to deeper engagement and more effective learning. Participants 1 and 2 echoed this sentiment, highlighting that the enjoyable and beneficial nature of MOOCs for personal skill development also gave incentive for them to thrive. They commented: "*I found the courses very interesting and helped me relax after a stressful study week.*" (Participant 1), while Participant 2 commented "*Studying MOOCs was enjoyable and very beneficial for my personal skill development*" (Participant 2). These accounts once again highlight that intrinsic motivation significantly impacts student

engagement in MOOCs. Particularly, it was driven by personal interest, enjoyment, and personal development they derive from the courses.

Self-Efficacy: Many participants shared their beliefs in the ability to succeed in MOOCs, provided they keep being active in applying the learned learning strategies. This high self-efficacy stimulated them to set achievable yet challenging goals and persist despite difficulties. For example, Participant 9 wrote in his diary, "*I believe that if I continue to pursue the learning strategies I have set out, I will complete the courses well.*" while Participant 5 expressed in the interview that completing assignments boosted her confidence, promoting a continuous feedback loop of improvement and accomplishment.

In summary, RQ1 uncovers significant challenges (language barriers, isolation, long videos, infrastructure limits) and the strategies learners adopt (SMART goal setting, time management, self-evaluation, persistence, active note-taking/quizzing, translation/peer help) when learning in a MOOC. RQ2 is explaining why certain behaviours or outcomes are consistently seen in learners. Specifically, learners' expectancies and task values (EVT) underpin their willingness to invest effort, while self-efficacy and self-regulation processes (SCT) operationalize that motivation into sustained behaviours - even under environmental constraints - thereby shaping engagement outcomes.

Discussion

The major findings of the study on EFL students' motivation and participation in MOOCs, grounded in the Expectancy-Value Theory (EVT) and Socio-cognitive Theory (SCT), are generally in partial agreement with the previous literature.

The findings underscore the pivotal role of self-regulated learning (SRL) strategies, such as goal setting, time management, and self-evaluation, in improving student involvement and academic achievement, which have been highlighted as pivotal strategies in previous studies (e.g., Broadbent & Poon, 2015; Jin et al., 2023; Kizilcec et al., 2017; Littlejohn et al., 2016). Moreover, Wong et al. (2019) and Broadbent & Poon (2015) also suggest that SRL strategies are broadly effective across various learner populations. While previous research has revealed the general challenges MOOC learners faced in their learning, such as technical issues and isolation (Lan & Hew, 2020; Yang & Lee, 2021), this study delves into more specific obstacles which EFL students in a developing country encounter, including linguistic hurdles and cultural differences in learning styles. For example, students commented on struggling with specialized vocabulary and extensive reading in English, which have received less attention in the general body of MOOC research. Consequently, the study suggests that SRL strategies should be tailored to meet the specific needs of EFL students, supporting the notion that a one-size-fits-all approach may not be sufficient, particularly for learners with language-related challenges, as suggested by Onah et al. (2023) as well, which is not widely covered in current EFL MOOC studies.

Moreover, the study participants proactively used the SMART framework further validating the principles of SCT. In particular, in the context of the current study, students, which demonstrates their active role in planning, monitoring, and evaluating their own learning processes - the key components of self-regulation. Particularly, the significance of self-efficacy emerged as a pivotal element impacting student involvement and perseverance in MOOCs. Elevated self-efficacy motivated students to establish ambitious objectives and persist despite challenges. This finding aligns with SCT, which underscores the significance of self-efficacy in inspiring learners to engage in and persist through demanding tasks (Bandura, 1986). These outcomes are supported by Vilkova's (2022) work which emphasized the significance of self-efficacy in addressing unique challenges that EFL students confronted, such as language obstacles and diverse educational backgrounds. The findings are also consistent with a study by Bozgeyikli et al. (2023), which found that academic motivation (the drive or desire to succeed in academic work) has a different impact on how students view their job prospects depending on whether they are male or female (gender) and their financial or social background (socioeconomic status). This suggests that students' perceptions of their readiness for the job market may vary based on these factors, rather than merely a positive relationship between motivation and employability.

The study findings align with the literature on the importance of high expectations of success and perceived value in motivating students. EVT postulates that students' drive is influenced by their expectations of success and the value they place on the task (Eccles & Wigfield, 2002). This study determined that students with high self-efficacy and those who perceived MOOCs as beneficial for career progression and competence enhancement displayed higher motivation and involvement. Previous studies (e.g., Handoko et al., 2019; Wei et al., 2024) have emphasized that students who perceive academic tasks as both valuable and achievable tend to demonstrate higher levels of engagement and motivation. In a similar vein, this study found that self-efficacy and the perceived value of MOOCs, especially for career development, significantly boost student motivation and engagement. Participants who found MOOCs as helpful for their career prospects were more motivated to overcome challenges and engage with the material. These findings consolidate the Expectancy-Value Theory (EVT), which highlights the importance of students' beliefs in their ability to succeed and the value they place on a task in driving engagement and persistence.

The literature indicates that both intrinsic and extrinsic motivations are crucial for student engagement in MOOCs (Ryan & Deci, 2000a; Dong et al., 2023). In the current context, intrinsic motivation (i.e., students' personal interest) and extrinsic motivation (i.e., their career-related goals) have a significant effect on their commitment and persistence in

MOOCs. This finding is in line with Bozgeyikli et al. (2023), who noted that motivation is a driving factor of perceived employability.

The literature revealed that self-regualted learning (SRL) strategies are broadly effective across various learner populations (Broadbent & Poon, 2015; Wong et al., 2019). However, the current study found that although SRL strategies were beneficial, they yielded positive results when modified to address the language-related barriers faced by EFL students in a developing country. This implies that a universial approach to SRL may not be equally effective for learner cohorts of different levels and backgrounds, especially those facing language barriers. This finding is congruent with To's (2022), who postulated that students' engagement and self-regulation can be fostered by enhancing their responsibility for their feedback and evaluative judgment, thus supporting them in addressing their unique challenges.

While the present study supports previous findings regarding the potential of technological innovations (e.g., gamification and adaptive learning technologies) in enhancing student engagement (Noroozi et al., 2013; Subhash & Cudney, 2018), it points out that unreliable technological infrastructure can significantly hinder the effectiveness of these innovations for university EFL students in the Mekong Delta. Consequently, the study has the implication that tackling technological access issues and implementing pedagogical innovations concurrently are the necessity, as Brown et al. (2020) also indicated in their study that collaborative engagement and responsive feedback in online learning environments are essential for promoting student engagement and alleviating isolation. In light of these findings, this study adds a contribution to the existing literature that while interactive quizzes and peer discussions were found to enhance engagement in MOOCs, unstable internet connections remain a significant barrier to effective learning, particularly in rural areas such as the Mekong Delta.

Although the existing research has widely documented the importance of social interaction and community engagement in online learning to reduce isolation (Er et al., 2020; Miao & Ma, 2022), yet this study’s findings reveal that, even with social features (e.g., discussion forums or peer reviews) in MOOCs, students still felt disconnected because of the insufficient, or deferred replies and/or interaction from instructors and peers. This suggests that merely providing interactive platforms may be insufficient. In other words, there is a need for more robust mechanisms to foster meaningful social interactions and support such as such as real-time, personalized feedback from instructors, which can help ensure that students feel heard and engaged throughout the course, and automated reminders and nudges to encourage timely participation and responses in forums and peer review activities, thereby reducing delays and maintaining interaction momentum. This aligns with Brown et al. (2020), who stressed that creating a sense of community in online

learning environments is crucial for reducing isolation and improving student engagement, particularly in the context of MOOCs.

Through the participants' reflective journals and semi-structured interviews, this study found that EFL learners employed goal-setting and time management strategies, based on the SMART framework, to overcome challenges. In particular, it helped students stay on track, manage their time, and persist in the face of difficulties. These findings lend support to the existing literature on self-efficacy and SRL strategies (Broadbent & Poon, 2015; Jin et al., 2023), but they also emphasize that these strategies are crucial for EFL learners who face language-related barriers.

Conclusion

This research provided detailed views of motivation and engagement related to EFL learners within MOOCs, using the Expectancy-Value Theory and Socio-Cognitive Theory as general bases for this research. The findings showed that SRL strategies, like goal setting and time management, can boost student involvement and improve their success. Students who applied these strategies remained organized, set clear goals, and managed their time, which helped them stay focused and keep going. EFL students find SRL strategies effective in managing their learning and tackling challenges in MOOCs. The key factors affecting motivation and engagement in MOOCs for EFL students are intrinsic motivation, extrinsic motivation, and self-efficacy. Intrinsic motivation, stemming from individual interest and pleasure in the topic at hand, significantly impacted student involvement. Specifically, those who found the course content interesting were more motivated to persist and succeed. Extrinsic motivation, especially in terms of career goals, was another major factor that seemed to engage students. The perceived utility value of MOOCs in improving essential skills, such as presentation and English proficiency, motivated students to engage actively with the courses. Additionally, Moreover, self-efficacy became a critical factor in that students with high self-efficacy showed an increase in the setting of challenging goals and persistence in the face of adversities. The combination of EVT and SCT offered a strong framework for exploring the complex relationship between personal, environmental, and societal factors that influence EFL students' participation in MOOCs.

However, it is important to acknowledge the limitations of this study. The small sample size of 31 EFL students from one institution make its application in other context cautious. In other words, the findings may not represent the experiences of EFL learners in different educational environments. The study's focus on English majors also limits the scope, as learners from other fields may have different experiences with MOOCs. Although the study provides valuable insights into motivation and engagement, future research should expand the sample to include a more diverse group from various institutions and disciplines to improve the applicability of the results.

Implications

These findings are important for educators, course developers, and policymakers. To boost motivation and engagement in MOOCs, it's crucial to create learning environments that meet the diverse needs of students. Key strategies for improving student success in MOOCs include setting clear learning goals, offering support for time management and self-regulation, and exploiting technology to provide timely feedback and personalized learning paths. To ensure MOOCs unlock their potential in democratizing education, policymakers must consider these factors when developing and carrying out digital education initiatives.

Limitations and further studies

Although care has been taken in ensuring the trustworthiness of this study, the application of the findings to other contexts should be made cautiously due to the monotonic type of the research population, i.e, the English majors only. The data collected from semi-structured interviews and weekly diaries provided in-depth insights but may not represent the broader population of MOOC learners. Subsequent studies might find value in utilizing larger and more diverse samples, as well as employing a mixed-method approach to deeply dig viewpoints from both control and experimental groups from various disciplines. This approach would optimistically yield a more holistic comprehension of MOOC participation and achievement.

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