



Students' Engagement in EFL Online Learning

Lesson Learnt from the Covid-19 Pandemic

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Abstract. The current study investigates learners' levels of engagement in online courses delivered via a designated school platform in the context of Indonesia. The Student Course Engagement Questionnaire served as a reliable measure in the study (SCEQ). As a result, a survey was conducted in a high school in Malang, East Java, with a sample of 275 English as a foreign language (EFL) students studying a general English language subject based on curriculum 2013. The findings revealed a high level of engagement among EFL Indonesian learners. However, Interaction Engagement received the lowest scores. This finding implies that teachers must provide online instructions that facilitate teacher-student and student-student interaction.

Keywords: student engagement · online learning · high school students

1 Introduction

Because of COVID-19 safety measures, online learning has become a viable tool for curriculum delivery worldwide [1, 2]. It is still used even after the Covid-19 pandemic because it provides easy access to knowledge, proper content delivery, personalized instruction, self-pacing, interactivity, and convenience [3]. To reduce COVID-19 transmission, schools have used online learning to keep their doors open during lockdown. The Internet provides flexibility, mobility, and convenience in acquiring, storing, delivering, and sharing information. It can overcome time and space constraints by providing students with rich online learning resources, numerous online learning tools, and a vast online learning space. It also has a wide range of knowledge representation and presentation formats. As a result, online learning has gradually become an important mode of instruction.

As online learning continues to facilitate the development of students' cognitive levels and to acquire adequate knowledge, students need to engage in online learning. Student engagement is crucial for a successful and effective online learning process. Student engagement is essential to learning English, primarily when it is associated with students' learning outcomes in English language skills 4 [4]. The term 'student engagement' means the effort and commitment given by students to learning. Morrison [5] defines engagement as students' desire, need and effort to participate and succeed in the learning process. Furthermore, student engagement is defined as the involvement

of the student's cognitive and emotional energy to accomplish a learning task [6]. As an illustration, students tend to behave passively academically when participating in online learning activities, meaning that these students have low engagement in learning. Whereas student engagement has a direct effect on the achievement of student learning outcomes. Student engagement in learning can be increased if students have adequate digital technology skills and can increase if there is adequate interaction between students and teachers, as well as good learning quality [5, 7].

Halverson and Graham [6] emphasized the need to measure student engagement. They explain measuring as finding out the extent to which students are actively involved in thinking, speaking, interacting with online learning materials, and discussing with other students and their teachers. According to Handelsman et al. [8], looking at several aspects to measure student engagement is necessary. Handelsman et al. developed a questionnaire to measure student engagement (Student Course Engagement Questionnaire; SCEQ) consisting of four aspects: 1) skills engagement, 2) emotional involvement, 3) participation/interaction engagement, and 4) performance engagement. This instrument covers the behavioral, cognitive, and affective aspects of engagement. The SCEQ assesses each dimension of engagement concerning student engagement in learning:

1. Skills engagement examines academic learning strategies and learning behaviors that drive academic success.
2. Emotional engagement assesses the affective component in which students internalize learning through an emotional connection with the subject matter.
3. Interaction participation/engagement measures students' interactions with instructors and classmates with the subject matter.
4. Performance engagement targets students' perspectives and self-efficacy with mastery of course content. As Handelsman et al. (1) highlighted, SCEQ provides a more comprehensive understanding of student engagement and fosters insight beyond what teachers see in observing classroom engagement behavior.

Research shows that engagement positively affects student motivation and academic performance [9]. Oraif and Elyas [4] investigated the level of engagement of a Saudi Arabian high school with a sample of 379 female English as a foreign language (EFL) learners studying a general English language course. The findings showed that the learners highly engaged with their online English classes. They found that 'Performance engagement' was ranked first followed by Skills engagement, Emotional engagement' and the last was 'Participation/interaction engagement'. Learner satisfaction in online learning correlated positively with student engagement. Learners were satisfied with online instruction, and therefore, they were engaged in it. Teachers must provide online instructions that facilitate teacher-student and student-student interaction [4].

Martin and Bollinger [10] surveyed U.S. university students about online engagement strategies based on Moore's interaction framework. 155 students completed a 38-item survey on learner-to-learner, learner-to-instructor, and learner-to-content engagement. Learner-to-instructor strategies were most valued. Icebreaker/introduction discussions and working collaboratively using online communication tools were rated the most beneficial learner-to-learner engagement strategies. Sending regular announcements or email reminders and providing grading rubrics for all assignments were rated most

beneficial learner-to-instructor engagement strategies. In learner-content, students said real-world projects and structured discussions were most helpful.

Robinson and Hullinger [11] measured student engagement in 3 universities' online courses using the National Survey of Student Engagement (NSSE) dimensions. The dimensions included academic challenges, active and collaborative learning, student-faculty interaction, enriching educational experience, and a supportive environment. They used 4 to 7-point Likert-type and Semantic Differential scales in the questionnaire. The result revealed high engagement, and the scores ranged from 5.13 to 5.87 for academic challenge, student-faculty interaction, active and collaborative learning, and enriching educational experience. This study also found several differences: the higher the students' GPA scores, the higher their engagement, and older students were more engaged, especially in a real-world discussions.

Baloran et al. [12] conducted a study at the University of Mindanao - Bansalan College in the Philippines to determine the significant relationship between course satisfaction and student engagement in online learning during the COVID-19 pandemic. Five hundred twenty-nine university students completed the online survey, and the results show that students have a 'high' level of engagement in online learning ($M = 3.98$; $SD = 0.65$). Its domains received mean scores of 4.05 ($SD=0.70$) or "high" for skills, 4.14 ($SD = 0.72$) for emotion, 3.86 ($SD = 0.77$) for participation, and 3.87 ($SD = 0.79$) for performance.

Student engagement in online learning is determined by the quality of online learning, namely online system, course design and interaction [13]. The quality of the online system is an important factor that supports successful learning. Aspects included in the online learning system are the quality of the website, technology and infrastructure that support the activities of teachers and students in managing learning resources and access to learning. Su and Guo [13] show that an effective online system can facilitate student satisfaction, increase student engagement, and improve student learning outcomes. John and Duangekanong [14] investigated student perceptions of online learning at a university in Thailand and found that the quality of the learning system had a positive effect on satisfaction and engagement of online learning.

Course design includes the design and display of materials, teaching strategies and evaluations to facilitate student learning. The research of Jaggars and Xu [15] identified the characteristics of an effective course design including content that is presented in a logical and well-presented manner, the opportunity for students to choose according to their needs and the appropriate use of technology. Jaggars and Xu [15] noted that course design was assessed by students based on the extent to which the content of the e-learning system met their needs and was seen as a key element influencing students' perceptions of online learning. Rubin and Fernandes [16] show that if online learning is planned with clear expectations and guidelines, students will be more engaged.

Many previous types of research on student engagement in online learning focused on university contexts and university students as their respondents, for example, studies conducted by Martin and Bollinger [10], Robinson and Hullinger [11] in the U.S. and Baloran et al. [12] in the Philippine. Another study conducted by Oraif and Elyas [4] in high schools with a sample of 379 female students was investigated during the covid-19 pandemic in the Saudi Arabian context. The level of student engagement in the senior

high school level in the Indonesian context, is not yet known. Therefore, this study focuses on high school students' engagement in online learning English at the end of the covid-19 pandemic. The present study attempts to answer the following question:

What is the senior high school engagement level in online learning at the end of the covid pandemic?

2 Method

This study follows a quantitative descriptive approach because it explores the perceptions of a large number of students. Quantitative data were obtained from survey questionnaires sent to respondents. The respondents of this study were high school students located in Malang, both public and private high schools and involved grades 10, 11, and 12. The technique for selecting respondents was based on convenient sampling, namely respondents who were close or easily accessible by the researcher [17].

The research instrument used in this study was a questionnaire called SOCEQ (Student Online Course Engagement Questionnaire), which was adopted from Handelsman et al. [8] to measure student engagement in terms of a) skills engagement, b) participation/interaction engagement, c) emotional engagement and d) performance engagement. The questionnaire consisted of 23 statements. The options included five options: 5 = Very characteristic of me, 4 = Characteristics of me, 3 = Moderately characteristic of me, 2 = Not really characteristic of me, and 1 = Not at all characteristic of me. The questionnaire was translated into Indonesian to be clearly understood by the respondents. The questionnaire was sent first to an ELT expert to be validated for its content and suitability. After being validated by the ELT expert, the questionnaire was given to students who had the same characteristics as the respondents in the form of a pilot study. The results of this pilot study were sought for reliability and corrected according to the tryout results.

Reliability test was conducted to determine whether or not all the statement items used in the questionnaire were reliable. The test was carried out using the Cronbach Alpha test with the following results (Table 1).

The reliability test results with Cronbach Alpha on the engagement questionnaire showed that all of these items were reliable, provided that the Cronbach Alpha value was more than 0.600 so that all of these items could be used in research. The questionnaire was transferred into a google form and sent to respondents through teachers or school principals. The snowballing technique was also used, asking the English teachers to pass it on to their colleagues so that it reached the population of high school students. The data collection occurred during month of April 2022, which marked the end of the Covid-19 pandemic. After the data was collected, it was coded and analyzed using SPSS version 26 to find descriptive data.

Table 1. The reliability of the questionnaire

No	Questionnaire	Cronbach Alpha	Value Limit	Conclusion
1	Student Online Engagement	0.913	0.600	Reliable

3 Findings

This study included 275 respondents from Senior High schools in Malang who agreed to be the sample and had a variety of characteristics. The researchers used a frequency distribution test, and the results showed that 50 students, or 18.2%, from class 10, 93 students, or 33.8%, from class 11, and 132 students, or 48.0%, from class 12. Based on age, 14 students, or 5.1%, were aged 15 years, 239, or 86.9%, were aged 16–17 years, and 22 students, or 8.0 percent, were aged > 18 years. Gender characteristics were gathered from 143 students (52.0% male) and 132 students (48.0% female). Table 2 summarizes the research participants.

4 Level of Engagement

This study uses four variables, namely skill engagement, emotional engagement interaction engagement, and performance engagement.

4.1 Skill Engagement

Table 3 shows skills engagement in English classes among High School EFL learners, when online learning was adopted.

‘I do well at online learning’ was indicated as ‘Very characteristic of me’ and ranked first (mean = 3.749); ‘I do my assigned homework in online learning.’ was likewise indicated as ‘Very characteristic of me’ and ranked second (mean = 3.684). At the same time, ‘I listen carefully to online learning.’ was ranked third (mean = 3.629), indicated as ‘Moderately characteristic of me’. The results suggest that the learners had skills engagement (mean = 3.512).

Table 2. Research participants

No	Characteristics	Amount	Percent
	Grades		
1	Grade 10	50	18.2
2	Grade 11	93	33.8
3	Grade 12	132	48.0
	Age		
1	< 15Year old	14	5.1
2	16–17 Year old	239	86.9
3	> 18 Year	22	8.0
	Gender		
1	Male	143	52.0
2	Female	132	48.0
	Total	275	100

Table 3. Skill engagement

No	Statement	Mean	Arrangement	Level of engagement
1	I follow online learning regularly	3.582	4	Moderately Characteristic of me
2	I do well at online learning	3.749	1	Moderately Characteristic of me
3	I do my assigned homework in online learning.	3.684	2	Moderately Characteristic of me
4	I read the recommended reference on the online system.	3.498	7	Moderately Characteristic of me
5	I review my notes during a break before joining the next online lesson.	3.087	9	Moderately characteristic of me
6	I am a regular student in online learning.	3.509	6	Moderately Characteristic of me
7	I take notes in an online class.	3.338	8	Moderately Characteristic of me
8	I listen carefully to online learning.	3.629	3	Moderately Characteristic of me
9	I attend every online learning in a timely manner.	3.538	5	Moderately Characteristic of me
	Skills engagement	3.512		

4.2 Emotional Engagement

Table 4 shows the emotional engagement in English classes among High School EFL learners when online learning was adopted.

As the results show, the students were emotionally engaged in the classroom because they responded positively to these elements in the scale, which indicated their emotional involvement with the class material. 'I want to master online learning materials' was ranked first (mean = 3.789) with a level of engagement of 'Very characteristic of me.' 'I'm thinking about how to understand online learning materials' was ranked second (mean = 3.709), with 'Characteristic of me' engagement, and 'I'm looking for ways to make online learning materials interesting to me' was third (mean = 3.48). Learners were emotionally engaged (mean = 3.504).

4.3 Interaction Engagement

Table 5 shows the interaction engagement in English classes among High School EFL learners in online learning.

The students rated the following points: "I actively participate in small group discussions" as the characteristic of them (mean = 3.622); "I help classmates online" as

Table 4. Emotional engagement

No	Statement	Mean	Arrangement	Level of engagement
10	I look for ways to make the subject matter relevant to my life.	3.331	3	Moderately Characteristic of me
11	I apply online learning materials to my life	3.207	5	Moderately Characteristic of me
12	I'm looking for ways to make online learning materials interesting to me	3.487	4	Moderately Characteristic of me
13	I'm thinking about how to understand online learning materials	3.709	2	Moderately Characteristic of me
14	I want to master online learning materials	3.789	1	Moderately Characteristic of me
	Emotional Engagement	3.504		

Table 5. Interaction engagement

No	Statement	Mean	Arrangement	Level of engagement
15	I actively raise my hand to express my opinion in online classes.	2.909	5	Not really Characteristic of me
16	I actively ask the teacher when I don't understand.	3.320	3	Moderately Characteristic of me
17	I enjoy taking online classes.	3.145	4	Moderately Characteristic of me
18	I actively participate in small group discussions.	3.622	1	Moderately Characteristic of me
19	I meet the teacher in my spare time for clarification/review of assignments or tests	2.840	6	Not really characteristic of me
20	I help classmates online	3.469	2	Moderately characteristic of me
	Interaction Engagement	3.217		

the second moderately characteristic of them (mean = 3.469); and “I actively ask the teacher when I don’t understand” as the third moderately characteristic of them (mean = 3.320). The findings show that learners were engaged in participation and interaction (mean = 3.217). However, the students rated low points: “I actively raise my hand to

Table 6. Performance engagement

No	Statement	Mean	Arrangement	Level of engagement
21	I get good grades from online learning	3.713	1	Moderately Characteristic of me
22	I did the test well.	3.604	2	Moderately Characteristic of me
23	I am confident that I can learn and can show good results in online classes.	3.575	3	Moderately Characteristic of me
	Performance Engagement	3.630		

express my opinion in online classes” (mean = .2.909) and “I meet the teacher in my spare time for clarification/review of assignments or tests” (mean = 2.840).

4.4 Performance Engagement

In Table 6, it may be seen that performance engagement in English classes among high school EFL learners, when online learning was adopted.

One of the primary objectives of any educational program should be to instill and cultivate a desire to succeed in a course. Learners were most likely to concur with the following statements: ‘I get good grades from online learning’ was ranked first (mean = 3.713), with a level of engagement indicated as ‘Moderately Characteristic of me’. ‘I did the test well.’ was ranked second (mean = 3.604), with a level of engagement indicated as ‘Moderately Characteristic of me’. ‘I am confident that I can learn and can show good results in online classes’ was ranked third (mean = 3.575), with a level of engagement ‘Moderately characteristic of me’. The results indicate that the learners were engaged in their performance (mean = 3.630). However, Interaction Engagement obtained the lowest scores. This finding implies teachers’ need to provide online instructions that facilitate teacher-student and student-student interaction.

5 Discussion

This research has focused on the student engagement in online learning in the Indonesian high school context. Our investigation revealed that engagement in English classes among High School EFL learners was generally at a moderate level. There are four components of engagement, and the results are as follows: ‘Performance engagement’ was ranked first (mean = 3.630). In second place was ‘Skills Engagement’ (mean = 3.512). The third place was ‘Emotional engagement’ (mean = 3.504), and the last was ‘Participation/interaction engagement’ (mean = 3.217) (Table 7).

The current study revealed that the students were moderately engaged with online learning. This finding differs from previous studies conducted by Robinson and Hullinger [11] in the U.S and a study by Baloran et al. [12] in the Philippines, and another study

Table 7. Summary of the level of engagement

No	Component	Mean	Arrangement
1	Skill engagement	3.512	2
2	Emotional Engagement	3.504	3
3	Interaction Engagement	3.217	4
4	Performance Engagement	3.630	1
	Level	3.465	

conducted by Oraif and Elyas [4] in Saudi Arabian high school. These studies reported that students were highly engaged with online learning.

Another important finding in the current study is that the students rated Interaction engagement as the lowest compared to Skill engagement, performance engagement, and emotional engagement. The result is similar to a study by Oraif and Elyas [4] in Saudi Arabian high schools, where they rated Interaction Engagement the lowest.

Our finding shows that students engaged moderately in online learning. This may be attributed to various factors, for example, the low quality of students' internet connections as reported by previous studies Puspaningtyas [18]. Puspaningtyas [18] shows that many students have difficulty connecting to the Internet when learning online. Other factors are time spent online directly proportional to the instructor's online time will influence student engagement. The online content should relate to the current syllabus [16], and the activities should be authentic or relate to the real world to increase the student's engagement [19]. The design and delivery of online learning and teaching must be relevant to the student's needs and interests [13, 14].

In the current study, students also rated Interaction engagement lower than the other components. Students were reported not to participate actively to express their opinion in online classes. They did not interact with the teacher in their spare time for clarification/review of assignments. This could be attributed to the sudden shift to online delivery of the curriculum due to COVID-19, in which teachers and students had no adequate time for preparation, accompanied by the stressful working or class conditions of the pandemic itself [12].

6 Conclusion

As a lesson derived from online learning at end of the COVID-19 pandemic, we recommend that secondary schools improve online learning delivery quality in the new normal setting. Teachers should provide online learning materials to increase student engagement. Online teachers can organize course content and use online teaching strategies to engage students emotionally, cognitively, and socially. Teachers can improve communication and feedback online. With the new mode of teaching delivery, students can be provided with adequate online resources and materials to assist their online learning needs and develop their knowledge, skills, performance, and positive attitudes towards learning. The Ministry of Education may invest in LMSs and other online learning tools that are effective, efficient, and easy to use.

References

1. Ahmed, H., Allaf, M., & Elghazaly, H. 2020. COVID-19 and medical education. *The Lancet infectious diseases*, 20(7), 777–778. New York: Elsevier Ltd; 2020. p. 777–778.
2. Taha, M. H., Abdalla, M. E., Wadi, M., & Khalafalla, H. 2020. Curriculum delivery in Medical Education during an emergency: A guide based on the responses to the COVID-19 pandemic. *MedEdPublish*, 9(1), 69.
3. Ellaway, R., & Masters, K. 2008. AMEE Guide 32: e-Learning in medical education Part 1: Learning, teaching and assessment. *Medical teacher*, 30(5), 455-473.
4. Oraif, I., & Elyas, T. 2021. The Impact of COVID-19 on Learning: Investigating EFL Learners' Engagement in Online Courses in Saudi Arabia. *Education Sciences*. doi: <https://doi.org/10.3390/EDUCSCI11030099>
5. Morrison JS. 2021. Getting to know you: Student-faculty interaction and student engagement in online courses. *J High Educ Theory Pract.* 21(12):38–44.
6. Halverson, L.R., & Graham, C.R. 2019. Learner engagement in blended learning environments: A conceptual framework. *Online Learning*, 23(2), 145-178. doi:<https://doi.org/10.24059/olj.v23i2.1481>
7. Doris KNABK. 2021. Technology Use and Student Engagement During COVID-19 : The Case of Online EFL Classes. *J Asiat.* 18(4):1413–22.
8. Handelsman MM, Briggs WL, Sullivan N, Towler A 2005. A Measure of College Student Course Engagement. *J Educ Res.*:98(3):184–92.
9. Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Al Kawas, S., & Abdalla, M. E. 2021. Satisfaction with online learning in the new normal: perspective of students and faculty at medical and health sciences colleges. *Medical Education Online*, 26(1), 1920090.
10. Martin, F., & Bolliger, D. U. 2018. Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, 22(1), 205-222.
11. Robinson, C. C., & Hullinger, H. 2008. New benchmarks in higher education: Student engagement in online learning. *Journal of Education for Business*, 84(2), 101-109.
12. Baloran, E. T., & Hernan, J. T. 2021. Course satisfaction and student engagement in online learning amid COVID-19 pandemic: A structural equation model. *Turkish Online Journal of Distance Education*, 22(4), 1-12.
13. Su CY, Guo Y. 2021. Factors impacting university students' online learning experiences during the COVID-19 epidemic. *J Comput Assist Learn.*:37(6):1578–90.
14. John VK, Duangekanong D. 2018. eLearning Adoption and eLearning Satisfaction of Learners: A Case Study of Management Program in a University of Thailand. *Conf Proc ISTEEL.*:20.
15. Jaggars SS, Xu D. 2016. How do online course design features influence student performance? *Comput Educ.* 95:270–84. Available from: <http://dx.doi.org/https://doi.org/10.1016/j.compedu.2016.01.014>

16. Rubin B, Fernandes R. 2013. Measuring the community in online classes. *J Asynchronous Learn Netw.* 17(3):115–36.
17. Nikolopoulou, K. 2022. *What Is Convenience Sampling? Definition & Examples.* Scribbr. Retrieved November 14, 2022, from <https://www.scribbr.com/methodology/convenience-sampling/>
18. Puspaningtyas ND, Dewi PS. 2020. Persepsi Peserta Didik Terhadap Pembelajaran Berbasis Daring. *J Pembelajaran Mat Inov.* 3(6):703–12.
19. Herrington, J., Oliver, R., & Reeves, T. C. 2003. Patterns of engagement in authentic online learning environments. *Australasian Journal of Educational Technology*, 19(1).

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