

GAMIFICATION ACTIVITIES ENGAGING PROSPECTIVE ELEMENTARY TEACHERS DURING ONLINE LEARNING

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Abstrak

Urgensi tercapainya pembelajaran campuran yang berorientasi pada TIK secara masif diterapkan karena munculnya wabah Covid-19. Instruksi Menteri Pendidikan dan Kebudayaan tentang pembelajaran daring dan bekerja dari rumah untuk mencegah penyebaran Covid-19. Studi ini menyelidiki faktor-faktor yang berdampak pada kesulitan belajar pembelajar Bahasa Inggris sebagai Bahasa asing dalam menggunakan MOOC, dan bagaimana pemanfaatan MOOC oleh pembelajar EFL sesuai dengan harapan Standar Nasional Pendidikan Tinggi. Penelitian ini menggunakan studi kasus penelitian kualitatif dalam mengumpulkan, menganalisis dan mengintegrasikan hasilnya. Subyek penelitian ini adalah 80 mahasiswa yang mengambil mata kuliah Bahasa Inggris di Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera Utara selama tahun ajaran 2020-2021. Ada dua macam sumber data dalam penelitian ini. Data pertama adalah hasil proses pembelajaran dari mata kuliah bahasa Inggris yang diperoleh dari sistem manajemen pembelajaran berbasis MOOC. Data kedua adalah kualitas perpaduan aplikasi tambahan dengan sistem manajemen pembelajaran menggunakan Quizizz untuk menunjukkan kesenjangan atau jarak antara prestasi akademik siswa yang diharapkan. Pengumpulan data dilakukan melalui observasi partisipan, angket dan dokumentasi. Kajian ini semakin memperdalam pemahaman kita tentang bagaimana seharusnya proses pembelajaran mengembangkan interaksi sosial yang meliputi pertukaran pengetahuan, diskusi, dan pemecahan masalah

Kata Kunci: gamifikasi, keterlibatan siswa, calon guru, pembelajaran daring

Abstract

The urgency of achieving massive ICT-oriented blended learning is applied due to the emergence of the Covid-19 outbreak. The Minister of Education and Culture instruction concerning online learning and working from home to prevent the spread of Covid-19. This study investigates factors impact on learning difficulties of EFL learners in using MOOCs, and how the utilization of MOOCs by EFL learners coincide with the expectation of National Higher Education Standards. This study employs a case study qualitative research in collecting, analyzing and integrating the result. The subjects included 80 students who took English course in Universitas Muhammadiyah Sumatera Utara, Faculty of Teacher Training and Education during the 2020-2021 academic year. There were two kinds of data source in this study. The first data is the outcomes of learning process from English course that was obtained from MOOC-based learning management system. The second data was the quality of additional application blend with learning management system using Quizizz to indicate a gap or distance between the expected students' academic achievement. Data collected through participant observation, questionnaire and documentation. This study further our understanding of how the learning process should develop the social interaction includes an exchange of knowledge, discussions, and problem solving.

Keywords: gamification, student engagement, teacher candidates, online learning

INTRODUCTION

The Covid-19 outbreaks have caused schools to implement online learning without no exception universally, starting from elementary school to Higher Education. In 2019, Higher Education has implemented blended learning, but the use of blended learning is not effective (Kemal, Suryadi & Rosyidi, 2019). Even though various studies have offered the implementation of blended learning in integrating technology in the learning process regarding the content and level of interaction (Tawfik et al., 2017).

The problem occurs from the limitations of teachers in managing information technology for learning (Christensen & Knezek, 2017).

In the context of education, technology is a tool used to support the learning process in the form of computers, software, communication networks, and printed books (Bates & Sangra, 2011). In this case, Bates argues that media is a term that contains elements of process or interpretation. So the media has content elements that someone creates in the form of graphics, audio, video, and computation can be

categorized as media. In the use of technology, the use of technology in education (especially in distance education) in five generations of models (Taylor, 2001), namely: correspondence models, multi-media models, tele-learning models, flexible learning models, and smart flexible learning models (the intelligent flexible learning model). The adoption of technology has certain characteristics such as level of education, age, gender, educational experience, and sophistication in using computers in education (Schiller et al., 2020). However, on the other hand, several studies indicate a practical gap in integrating technology into learning (Christensen & Knezek, 2017). Another study revealed significant progress in readiness for technology integration during student teaching and significant variability in individual change trajectories of readiness for technology integration (Sun et al., 2017).

The definition of MOOC is classified into two, namely connectivist and instructional (Heckel et al., 2014). In general, tertiary institutions are accommodated by the SPADA application as a means of learning management system itself. The output of 21st-century language teaching is creativity and innovation, meaning that language learning raises creative attitudes in understanding intercultural perspectives. The effective infusion of creativity and technology in education should be considered systemically three times: at the level of teacher education, assessment, and education policy (Henriksen et al., 2016)

The Indonesian Directorate General of Learning and Students Affairs instructed the higher education learning implement blended learning (Arifin, 2020), but at the time of the adjacent WHO announced Covid-19 as a global pandemic that resulted in physical distancing. Then, the government instructed to work from home to reduce the spread of Covid-19. So lecture activities are carried out in a network using a MOOC-based learning management system, but in practice it is found that students have learning difficulties.

Education is conceived as the production of particular subjectivities and identities such as the rational person, the autonomous individual, or the democratic citizen (Biesta, 2015). Human need education in life and it is an effort that human can develop their potential through a learning process and

or other methods that are known and recognized by the society. Curriculum learning is that is effectiveness is highly sensitive to the mode of progression through the tasks (Graves et al., 2017).

Recently, in higher education, the applicable curriculum is the Indonesian National Qualifications Framework. The IQF Curriculum is emphasized on the evaluation to develop learning objectives, abilities, design of learning tools for competency standards and reference courses, and the completion of competencies of learning outcomes. Competency relate to personal models, outcome models or education and training models, as well as to the standards approach in which benchmarking criteria are used (Le Deist & Winterton, 2005). Competence is the accumulation of a person's ability to carry out a measurable job description through a structured assessment, covering aspects of individual independence and responsibility in their field of work.

The use of MOOC significantly affects student engagement as a predictor of academic achievement, a significant interest in discovering methods will improve and increase student engagement at all level education (Williams & Whiting, 2016). MOOCs are a large-scale, distance-learning method that is free and accessible to anyone and anywhere in the world. Learning activities carried out by teachers should be based on certain rules. Before teachers carry out instructional activities, they prepare learning instruments, so that learning activities can be carried out properly and achieve the desired learning objectives. (Gunawan, 2017).

The study contributes to producing lecturers' and students' ability to maximize the use of MOOCs so that students no longer find difficulties in learning an EFL classroom. Higher education can find new strategies in implementing MOOC-based learning to meet the qualifications of the National Higher Education Standards. Students realize the urgency of integrating ICT in learning so that students can better prepare for learning 4.0.

METHODS

The study subject included 80 students who took English course in Universitas Muhammadiyah Sumatera Utara, Faculty of Teacher Training and Education during the 2020-2021 academic year. The

subjects include four classes who majoring Elementary School Teacher Department. This study employs a case study qualitative research method used to obtain information on EFL learners' difficulties in online learning as the consequence of Covid-19 outbreaks (Taylor., et.al, 2015; Creswell & Poth, 2016). All of the 80 students enrolled in MOOC-based learning management system. and were given the questionnaire during research process.

The study using Fredricks et al. (2004) instrument to identify students' engagement in learning process. The students' engagement instrument consists of 15 statement items, each consists 5 statement items to measure behavioral engagement, cognitive engagement and emotional engagement (Fredricks et al., 2004). The questionnaire obtained with the snowball technique. The snowball is operationalized by distributing questionnaires in student WhatsApp groups. Therefore, the subject is expected to represent the IQF curriculum learning outcomes as the internalization and accumulation of knowledge, skills, attitudes, and competencies that are achieved through a structured educational process covering a particular field of science or expertise or through work experience.

FINDINGS AND DISCUSSION

The results of observations at the beginning of the semester can be seen an indication of a student learning English comprehension is low. This is evidenced by the lack of knowledge of Elementary School Teacher Department students about basic understanding of English such as Phrases and Clause. Various circumstances cause learning difficulties, both internal and external (Westwood, 2008). Internal factors, which highlight emotional aspects like motivation, self-confidence, self-esteem, and attitude, are the first. External factors influences are socio-cultural aspects such as instructors, learning tools, and classroom culture.

Table 1. Percentage of Learning Difficulty in Learning English

No	Factors	Indicator	Percentage (%)
1.	Internal factors	Less motivated	26.7
		Less confident	33.3
		Self-esteem and attitude	0

2.	External factors	Unprofessional lecturer	0
		Study material is not clear	16.7
		Unsupportive environment (parents, friends, living environment)	23.3
		Total	100%

In this frame of reference, English is taught as a required subject. Therefore, problems, hurdles, and difficulties in learning English at this level are obstacles. Exam system, fundamental aspects of English (Celce-Murcia & McIntosh, 1991), large classes, passive learning, uninteresting, lengthy, complex literature-based syllabuses, the poor performance of English teachers (Manurung & Izar, 2019), and outdated methodologies are all considered significant issues in learning English (Bernhardt, 2005; A. L. Brown & Campione, 1994; Malik, 1996).

There are four types of factors that cause learning difficulties (Hamalik, 2001). Firstly, internal factors, which derive from the students themselves. Internal factors include not having clear learning goals, lack of interest often disturbed health, ability to follow lessons, study habits, and lack of mastery of language. Secondly, school environmental factors include circumstances that come from within the school, for instance, the way of giving lessons, lack of reading materials, lack of tools, learning materials that are not following their abilities, and the implementation of too dense lessons.

Thirdly, student's family environment factors, including the family's financial ability, family problems, homesickness (for students from outside the region), visiting and receiving guests, and lack of supervision from the family. Fourthly, factors from the community environment, including interference from other genders, working while studying, being active in organizations, being unable to manage recreation and leisure time, and not having friends to study together

Gamification in Online Learning

Through Quizizz application student engagement can be monitored optimally, because disengage students are seen who are not doing their assignment. Disengaged students tend to show negative emotions

such as anger, boredom, anxiety in learning, and even show depression in learning (Fredricks et al., 2004).

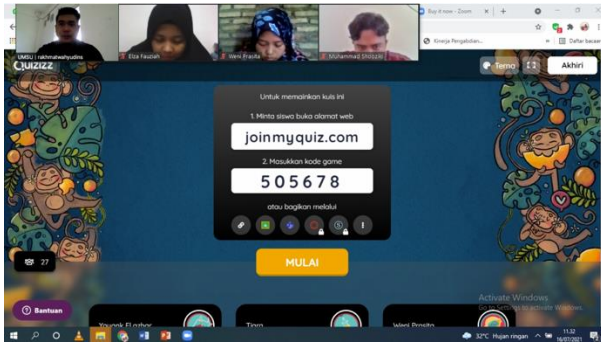


Figure 1. Blending Quizizz in Online Distance Learning

The questionnaire data shows the quality of teaching and positive learning environment, according to Reyes et al., (2012) that the lecturer is able to create a positive atmosphere and the students showed enthusiasm and emotional involvement in the learning impact on academic achievement. According to Fredricks et al. (2004), there are three indications of student engagement: behavioral engagement, emotional engagement, and cognitive engagement.

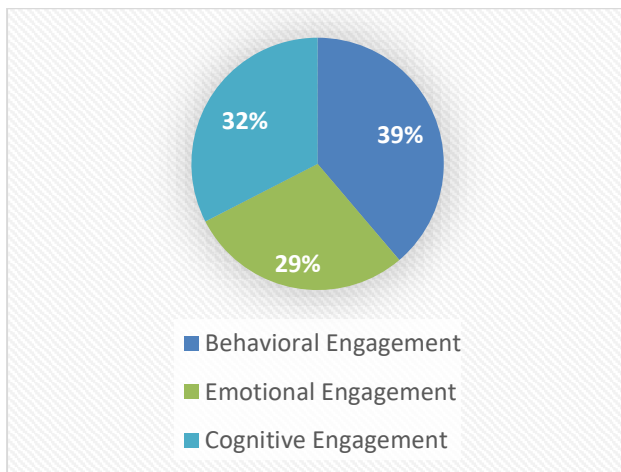


Figure 2. Student Engagement Employing Model Fredericks, et.al (2004)

The data from the questionnaire show that the behavioral engagement of students learns regularly, pays attention to every quiz question in Quizizz, concentrates on understanding the material, and completes quizzes with Quizizz. In emotional engagement, students have a positive orientation towards learning and have emotional closeness so that students tend to act in accordance with the vision

and mission of learning. The cognitive engagement component can increase student learning success, students who are cognitively involved have good learning outcomes.

The collection of routine tasks and formative tests given value of the lecturer to students. The documentation were taken from English course students who enrolled in MOOC-based learning management system Universitas Muhammadiyah Sumatera Utara. For routine assignments, the lecturer asks students to make a summary of the English material for each meeting. From the documentation obtained, only a few students understand the summary of the English material they have made. Most of them are just doing routine tasks without knowing and understanding what they are working on the content of the summary. This can be seen when the lecturer asks students to re-explain the summary of the English material they are working on, the student cannot do it.

From the results of formative test scores, the data also shows that only a few students who graduated with high grades are benchmark assessments for English courses is 80-90. From the results of the formative test scores, the data also shows that only a few students pass with high scores, namely the assessment benchmark for English courses is 80-90. From 80 students, 75 students scored 80-90, while the rest got various grades such as 70, 60, and even 50.

Table 2. Routine and Formative Tasks Percentage

No.	Outcomes	Range	Percentage (%)
1.	Routine task and formative task	80-100	33.3
		60-70	50
		< 50	16.7
Total			100

The results of this study determine the readiness of lecturers and students' abilities in maximizing the use of the MOOC-based learning management system, so that students no longer find difficulties in learning a EFL. Moreover, to fulfill the National Higher Education Standards requirements, higher education can develop innovative ways to adopt MOOC-based learning. Students recognize the need to use ICT in their learning in order to better prepare for learning 4.0.

The National Higher Education Standards have published the formulation of learning outcomes included in one of the standards, namely the Graduate Competency Standards, student's must-have elements of general attitudes and skills (which have been formulated in detail and listed in the SN attachment) and specific skills and knowledge. Thus, the IQF curriculum is expected to be implemented properly to students so that graduates become professional teacher candidates who have characteristics from others. Curriculum changes in higher education are carried out in response to the development of Science and Technology, societal needs, and stakeholder needs. In 2018, the Indonesian Directorate General of Learning and Student Affairs conducted the preparation of the Higher Education Curriculum in the Industrial Era 4.0. The curriculum improvement had an impact on academics on how to reconstruct the higher education curriculum.

Responding to the program of the Directorate General of Learning and Student Affairs, universities in Indonesia actively conducts socialization, counseling, and training for lecturers to be able to achieve ICT-oriented blended learning. The urgency of achieving massive ICT-oriented blended learning is applied due to the emergence of the covid-19 outbreak phenomenon. However, using the Learning Management System some students and lecturers have difficulty. MOOC is designed and delivered effectively to ensure meaningful learning occurs and results in learning satisfaction among MOOC students, thereby achieving success with the MOOC system (Albelbisi et al., 2018).

CONCLUSION

The current conclusion of this study is learning difficulties caused by internal factors and external factors. Both factors are analyzed based on Westwood (2008), internal factors that emphasize affective factors i.e. motivation, self-confidence, self-esteem and attitude. External factors includes socio-cultural elements i.e. teachers, learning tools, and culture in the classroom.

In this case, the data is more concrete as evidenced by the output of the students of the Elementary School Teacher Department and Indonesian Language and Literature Department who mostly have difficulty learning English, especially

the four competencies of English. The lack of initial knowledge of English for students is indicated by the difficulty of students in understanding the basics of English in the form of Phrases and Clauses.

This study seeks to evaluate the implementation of online learning in Higher Education, especially the Faculty of Teacher Training and Education, Universitas Muhammadiyah Sumatera Utara. Language proficiency might be assessed more subjectively as an outcome, as when social peers associate individual expressions of eloquence with people who appear "educated." (Jackson & Everington, 2017). English has not shown brilliant results, yet students have been learning English from primary education to higher education for a long time. Learners need to improve and strengthen ELT in Indonesia as the country continues to lag in English literacy occurs (Turmudi & Hajan, 2020). Meanwhile English is a foreign language in Indonesia in general. A foreign language is not commonly used for communication in the nations where it is taught. On the other hand, English is taught in schools as a topic with the goal of essential communication and learning four language skills. At the University level, all study programs generally teach English courses every 1 or 2 semesters. It illustrates how important it is to learn English as an introduction to academic achievement and support a workplace career.

Furthermore, online learning using a variety of additional applications to raise student engagement. The attitude of students toward the instructional method used has an impact on student engagement in the classroom (Shekhar & Borrego, 2018). Students' previous lecture-based learning experiences are frequently contradicted by the engagement requirements of active learning, challenging their beliefs and expectations about teaching and learning (Åkerlind & Trevitt, 1999). The learning process should proceed in social interaction so strong that there is an exchange of knowledge, discussions, and problem-solving—the challenges Higher Education faces as developers of best practices in online learning (Ginting et al., 2021). In addition, the government must be able to develop regulations that facilitate online learning innovation.

Finally, language teaching needs to be carried out effectively because language functions as a lingua

franca, in other words, the language that unifies the nation (Hult, 2017). In practice, language teaching is undergoing a phase of change from traditional to modern. Language learning in the twenty-first century produces creativity and innovation to instill a creative approach in comprehending multicultural views. Traditional learning models that only use one method tend to be monotonous and passive, and cannot stimulate students to think critically, creatively, energetically, and innovatively. Educators must be competent and adaptable to changing circumstances to actualize the golden generation, particularly in terms of 21st-century skills.

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