East Asian Journal of Multidisciplinary Research (EAJMR)
Vol. 3, No.6 2024: 2305-2314

Self-Regulated Learning is the Internalization of Mobile Seamless Learning-Based Learning Strategies in Improving Communication Skills

Ika Zutiasari[1*], Heri Pratikto[2], Wening Patmi Rahayu[3], Dede Rusmana[4]
Universitas Negeri Malang
Corresponding Author: Ika Zutiasari ika.zutiasari.fe@um.ac.id

A R T I C L E I N F O

Keywords: Business Comunicattion, Comunication Skill, Mobile Seamless Learning, PLOMP, Self Regulated Learning

Received : 20, April
Revised : 22, May
Accepted: 24, June

A B S T R A C T

The utilization of technology in the teaching and learning process is a new innovation challenge for lecturers to be able to improve student understanding of the material. The application of mobile seamless learning through self-regulated learning for business communication courses is a profitable opportunity to improve the communication skills of Business Education study program students. This research method is Research and Development with PLOMP model. The application of Edubis can improve students' oral and written communication skills. There has been an increase of 11% from before using the application to using the application so that the Edubis Application can become an effective learning media platform for students. Novelty: Only a few research studies discuss self-regulated learning through digital learning based on mobile seamless learning. Self-regulated learning is independent learning, which refers to learning driven by students' thoughts and behavior toward their learning goals.

INTRODUCTION

21st-century learning integrates various technologies into the teaching and learning process. Technology is a tool or medium that educators use to convey content to students. This technology includes software and hardware, aiming to support the learning process optimally. As a contribution to technological progress in era 4.0 and society 5.0, it is a challenge for teaching staff, especially in learning by integrating technology skills. (Puncreobutr, 2016), (Rachmadtullah et al., 2020). Lecturers must be able to understand technology, apply technology, and develop learning products that integrate technology. Technology can increase lecturer innovation in implementing learning on a massive scale (McKnight, 2016). Innovations that can be implemented include, for example, using media or digital supporting devices that make it easier for students to understand the material. Media that can be developed include Android-based media, digital multimedia, or the development of presentation materials from PowerPoint and Prezy (Chou, 2015), even teaching staff in general, in this case, lecturers, can innovate learning through digital games (Byun, 2015). Primary and higher education schools have adopted and adapted new learning habits by utilizing and integrating technology in holistic learning (Gherheş et al., 2021). Digital technology can be utilized optimally, for example, through digital literacy, synchronous virtual learning, asynchronous learning, and mixed learning or blended learning (Tang, 2016).

Blend learning can also accommodate a person's various learning styles (Jiang, 2017). According to Garrison and Kanuka (2004), blended learning combines online and face-to-face learning to achieve an optimal learning experience. The study of Pelz et al. (2000) investigated the effectiveness of blended learning in college-level courses and found significant improvements in student achievement. The Bernard et al. (2014) meta-analysis results show that blended learning provides equivalent or better learning outcomes than traditional face-to-face learning. The course for which the learning media will be developed, namely business communication, is one of the mandatory courses in the Business Education Study Program and is one of the transdisciplinary courses that can be used as an option for students of other study programs to take this course. This course will play a significant role in improving students' communication skills. The importance of mastering communication skills is also driven by demand from the labor market, which requires students to have more soft skills than just technical skills.

Based on the results of observations by researchers who act as lecturers in business communication courses, students' communication skills are still minimal; many students are not used to conveying ideas or opinions, discussion skills, presentation skills, and clear speech that opponents can understand, and skills in asking questions. Regarding nonverbal communication, students still do not have high self-confidence; this can be seen from facial expressions when talking to other people, body movements such as hands that match the words spoken, and a tone of speech that attracts the other person's attention.

Many studies have been conducted on the impact of technology in education (Wan, 2015). Research related to the use of technology to improve the skills of teaching staff in developing digital-based learning tools (Tang, 2016), (Sousa, 2019), integration with learning models (Barber, 2015), for example, PBL (Gómez-Pablos, 2017), development of digital media/learning management systems (Xie, 2020), development of digital games in learning (Hussein, 2019), innovation in digital evaluation (Kuncahyono, Suwandayani dan Muzakki, 2020), innovation in electronic-based teaching materials (Dobler, 2015), use of mobile learning (Tillmann et al., 2012). However, based on the results of previous research, only a few studies discuss self-regulated learning through digital learning based on mobile seamless learning. Self-regulated learning is independent learning, which refers to learning driven by students' thoughts and behaviour toward their learning goals. It involves various processes such as goal setting, self-evaluation, learning strategies, metacognition, and self-efficacy. (Dale et all, 2012), (Made et all, 2022). Independent learning is vital in education because it allows students to take responsibility for learning and develop skills such as analyzing, monitoring, and self-reflection. It is a self-directed process in which learners translate their psychological capacities into task-related skills in different domains (Philip, 2016). Learners self-regulate their learning by examining the learning environment and making decisions about managing their learning process (Liliya et all, 2017).

Mobile seamless learning is learning that contains the concept of continuous continuity and continuity in implementing learning without any limitations of space and time.(Schön dan Ebner, 2018). According to Garrison and Kanuka (2004), blended learning combines online and face-to-face learning to achieve an optimal learning experience. Based on the background explanation, it is necessary to carry out research related to the use of digital MSL (mobile seamless learning) technology and the internalization of learning through self-learning-regulated learning to improve student communication skills. According to Seow et al. (2008), there are essential components in seamless learning: space, time, context, community, cognitive tools, and artifacts. This research aims to produce and test the feasibility of Mobile Seamless Learning media in Business Communication courses and internalize learning through self-regulated learning through media developers to improve Communication Skills.

THEORETICAL REVIEW

Learning Strategy

Learning strategies are essential to learning. (Herlina, E., et all). Through learning strategies, lecturers can achieve learning goals by identifying everything related to the learning process they will carry out. According to Dgururah in Haidir et al. (2014) here are four basic strategies in learning activities, namely:

a. Identifying changes in student behavior and personality
b. Choose an appropriate teaching and learning approach system.
c. Select and determine learning procedures, methods, and techniques considered appropriate and effective as a guide to learning.
d. Establish standards of success so that they can be used as guidelines for conducting evaluation and feedback

Digital Mobile Seamless Learning Technology

Mobile Seamless Learning digital technology contains the concept of continuous continuity in implementing learning without any limitations of space and time (Schön & Ebner, 2018). According to Seow, et al (2008), there are essential components in seamless learning: Space, time, Context, Community, Cognitive Tools, and Artifacts.

Self Regulated Learning (SLR)

Self-regulated learning is a condition where a person can learn by controlling activities independently, monitoring learning goals, and managing resources to determine the learning process (Papa, 2018). Furthermore (Zimmerman, 2012) defined Self Regulated Learning as students' ability to participate actively in learning.

Table.1 SLR Components Via Digital MSL

Aspect	Implementation
Motivation to learn	Foster enthusiasm for learning, responsibility, ability to analyze and evaluate
Self-management	The ability to manage oneself regarding aspects to achieve learning goals either with help or independently
Learning independence	Cultivates the ability to learn independently without depending on others to achieve learning goals
Problem-solving	Develop problem-solving process abilities related to material topics/learning objectives

Source: adapted by Ana & Achdiani, (2015)

Communication Skill

Communication skills refer to a person's ability to effectively and efficiently convey messages to other people. It involves the use of various types of communication, including verbal (words), nonverbal (gestures, facial expressions, etc.), and written (texts, letters, emails, etc.). According to Oktaviani & Hidayat (2015), you can use five indicators to analyze verbal communication skills It can be seen that the five indicators are as follows 1) Expressing opinions, 2) Listening, 3) Communicating results, 4) Asking, 5) Answering.

METHODOLOGY

The method used in this research is a research and development method. The research model used is the Plomp model developed by Tjeerd Plomp. The Plomp model is a relevant and effective development model. It has simple and systematic stages that can be used in various kinds of development, including learning media development (Plomp, 2013). This model is depicted in Figure 1.

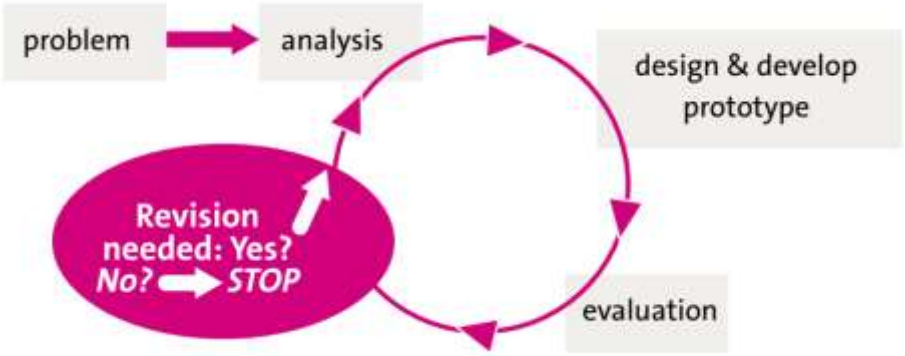

Figure.1 Model Developed By Tjeerd Plomp

Research and development procedures are based on theoretical studies by the first stage of the Plomp method, namely problem analysis, which consists of three initial investigation steps: problem analysis, student and lecturer need analysis, and curriculum analysis. The second stage is the design stage; in this stage, the product will be designed and developed according to results from previous analysis.

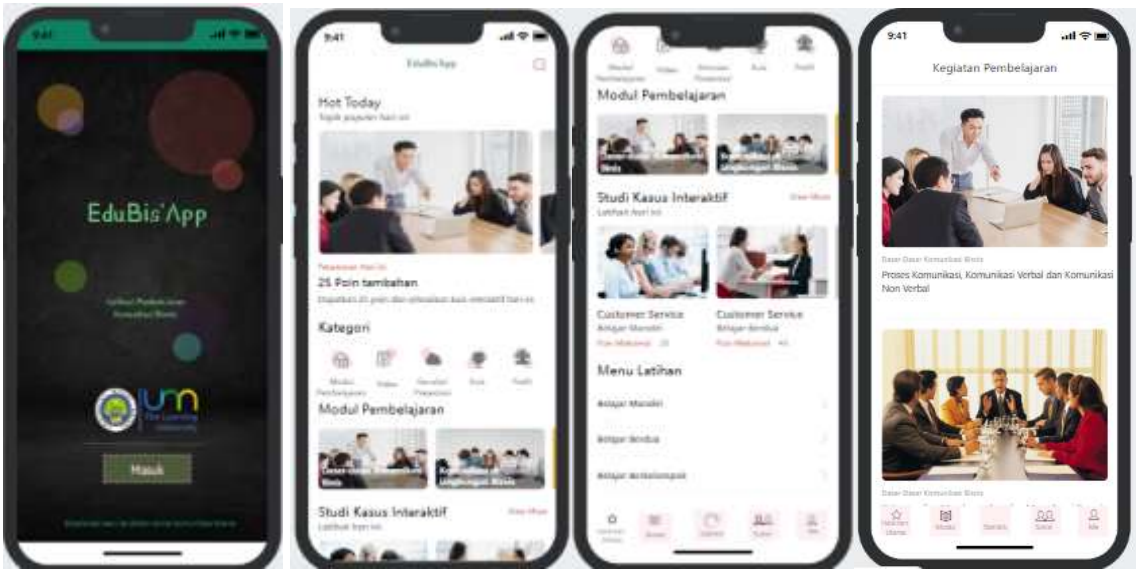

Figure.2 Media Product Prototype

The next stage is the development stage, where researchers conduct product trials by material and media experts. Later, the input received will be used as material for improving the media before field trials. After that, a trial of the application product was carried out on students with research instruments in the form of observation guidelines, a questionnaire consisting of a grid of validation instruments for material experts and media experts, and tests.

RESULTS AND DISCUSSION

The development of seamless mobile learning digital media through the application-based *Edubis App* to improve students' abilities in business communication courses was developed using the PLOMP research and development model, which consists of several stages (Tjeerd dan Nienke, 2013). In the problem analysis stage, researchers analyze development needs with three initial investigation stages: analyzing obstacles in learning activities. In this case, the researcher looks at the problems faced by students, such as the need for socialization skills and communication ethics among students in the Business Education study program. So, in the needs analysis stage, researchers see that students need learning media that can be used as a guide in learning with learning media that is interactive and easy to access anytime and anywhere. Likewise, lecturers need learning media efficiently designed according to course needs.

At the design stage, the product will be designed and developed according to results from previous analyses (Ririn Sri Kurnia, Desyandri dan Nellitawati, 2021). This stage determines the elements needed in design, material, and language. Researchers will process data from the initial analysis results to produce a development product in the form of mobile seamless learning media by utilizing GlideApps, which contains learning materials equipped with images, videos, and practice questions for students. The following applications will be developed.

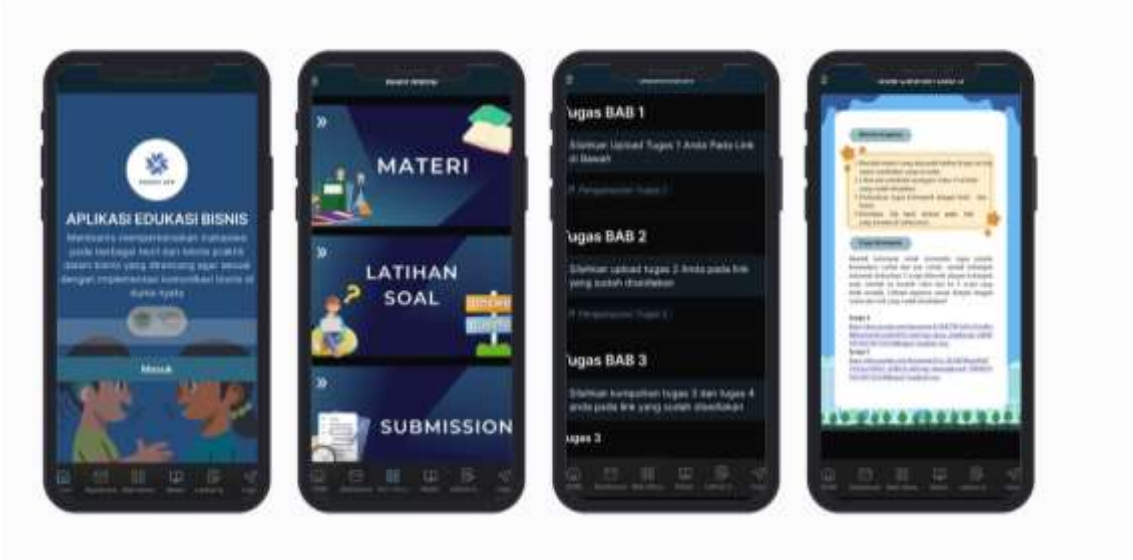

Figure 3. Edubis App

The Edubis application that has been developed has gone through the testing and evaluation stage. The results of the validity and media tests are as follows:

Tabel.2 Results of the Validity and Media Tests

No.	Validation	Score	Criteria
1.	Material Expert	86,4%	Very valid/Very feasible
2.	Media Expert	85.5 %	Very valid/Very feasible

The results of the material validation of the questionnaire consisting of aspects of material content, language, and communication, as well as presentation, obtained a result of 86.4%, which falls into the criteria of being very valid and very feasible. The results of the comments and suggestions given show that the Edubis App developed is good, but there are several suggestions that researchers can consider. The results of media expert validation show that the Edubis App is valid and suitable for mobile seamless learning through self-regulated learning in business communication courses. This is based on filling out a questionnaire that consists of several aspects, namely navigation, visuals, and communication, and getting results of 85.5%. The results of the comments and suggestions stated that the design needed to be improved in several ways. Based on the overall validation data results, the Edubis App mobile seamless learning product is very feasible.

It can be used as a means of self-regulated learning for business communication courses for students in the Business Education study program. The results of the material validation of the questionnaire consisting of aspects of material content, language, and communication, as well as presentation, obtained a result of 86.4%, which falls into the criteria of being very valid and very feasible. The results of the comments and suggestions given show that the Edubis App developed is good, but there are several suggestions that researchers can consider. The results of media expert validation show that the Edubis App is valid and suitable for self-regulated learning for business communication. This is based on filling out a questionnaire that consists of several aspects, namely navigation, visuals, and communication, and I got a result of 85.5%. The results

of the comments and suggestions state that there is a need to improve the design on several pages and changes to several things. Based on the overall validation data results, Edubiss is suitable for students to use as mobile seamless learning through self-regulated learning in business communication courses. (Khamzawi & Wiyono, 2015).

Apart from the suitability of the material and media, the Edubiss application can also improve the communication skills of Business Education study program students. This can be seen from the implementation of the blended learning process and students' improved communication skills compared to before.

Previous Results

$$\text{Average} = \frac{(total\ number\ of\ observation\ scores}{total\ number\ of\ observation\ scores} x100\%$$
$$= \frac{2.685}{3.700} x100\%$$
$$= 72\%$$

After Results $$\text{Average} = \frac{\text{total number of observation scores}}{total\ number\ of\ observation\ scores} x100\%$$
$$= \frac{3.072}{3.700} x100\%$$
$$= 83\%$$

Based on the results of data calculations taken from the implementation of learning carried out on Business Education study program students, significant differences can be seen in the effectiveness of using the Edubis application learning media. Before implementation, it was found that the average score of students in the Business Education study program was in the percentage range of 72%, which was based on good quality criteria. Before using learning media, the average score obtained by students in the business communication course was good. However, despite the researcher's initial aim, students still need help learning business communication, so they develop media that is more interactive and easy to access. After the Edubis App learning media was implemented, the results of implementing the blended learning process were in the percentage range of 83%, which means an increase of 11%, making the learning implementation criteria perfect qualitative criteria. (Ernawati & Sukardiyono, 2017).

Several student skills have increased, and the learning model has been applied through the *Edubis App* in business communication. Oral communication, which is one aspect of the business communication course, has several skills that students must master well, such as students being able to convey opinions and ideas appropriately in carrying out business communication, they can summarize the information they have obtained, then have communication skills to inform, instructing, motivating, and inviting interlocutors in communicating business, and finally, students can utilize technology to support their learning.

Apart from the oral communication aspect, written communication is also a skill aspect that has significantly improved and can be mastered by students taking business communication courses by applying seamless mobile learning via the self-regulated learning *Edubis App*. These skills include students understanding how to write a business letter well; they can use it according to their needs and know about several forms of business letters. Moreover, they can know the importance of making a good job application and writing a good and correct job application letter. All aspects of oral and written communication skills in business communication courses have increased by 11% from the figures mentioned. The mobile seamless learning model through self-regulated learning *Edubis App* can increase students' understanding of the Business Education study program in business communication courses.

CONCLUSIONS AND RECOMMENDATIONS

Learning, which is currently starting to integrate technology in the teaching and learning process, really helps adapt to the environment, which is currently increasingly modern, namely by implementing digital mobile seamless learning media via SLR in business communication courses. This technological development certainly greatly influences the teaching and learning model implemented by lecturers and their students. Nowadays, the world of education certainly needs help in learning activities, especially for business communication courses, due to a lack of communication skills and communication ethics among students in Business Education study programs. Most teaching staff, such as lecturers, still use media such as videos, power points, etc. No learning media can be accessed independently, and it contains content for business communication courses. The research carried out is research (Research and Development) with the PLOMP model. The product resulting from this research is the Edubis learning application. The results of material validation on the questionnaire, consisting of aspects of material content, language, and communication, as well as presentation, obtained a result of 86.4%, so it was included in the criteria of being very valid and very feasible.

Meanwhile, the results of media expert validation, which consists of several aspects, namely navigation, visuals, and communication, obtained a result of 85.5%, so it can be said that the Edubis App is valid and suitable for use as mobile seamless learning through self-regulated learning in business education courses. This is supported by an increase in students' communication skills, with the average ability before using the Edubis App being at 72% with good qualitative criteria; after trial use of the Edubis application, it increased to 83%, which is perfect qualitative criteria. The increase in the average student population by 11% proves that the Edubis app as mobile seamless learning through self-regulated learning for business communication courses for business education study program students is feasible.

FURTHER STUDY

Still conducting further research to find out more about Self-Regulated Learning is the Internalization of Mobile Seamless Learning-Based Learning Strategies in Improving Communication Skills.

REFERENCES

Ana, A., & Achdiani, Y. (2015). Penerapan self regulated learning berbasis internet untuk meningkatkan kemandirian belajar mahasiswa. Invotec, 11(1).

Barber, W. (2015). Problem based learning and authentic assessment in digital pedagogy: Embracing the role of collaborative communities. Electronic Journal of E-Learning, 13(2), 59–67. https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84926350073&origin=inward

Brink, K. E., & Costigan, R. D. (2018). Oral communication skills: Are the priorities of the workplace and AACSB-accredited business programs aligned? Academy of Management Learning and Education, 14(2), 205–221. https://doi.org/10.5465/amle.2013.0044

Byun, J. (2015). Audial engagement: Effects of game sound on learner engagement in digital game-based learning environments. Computers in Human Behavior, 46, 129–138. https://doi.org/10.1016/j.chb.2014.12.052

Casady, M., & Wasson, L. (2019). Written Communication Skills of International Business Persons. Business Communication Quarterly, 57(4), 36–40. https://doi.org/10.1177/108056999405700407

Chou, P. (2015). Prezi versus PowerPoint: The effects of varied digital presentation tools on students' learning performance. Computers and Education, 91, 73–82. https://doi.org/10.1016/j.compedu.2015.10.020

Dale, H., Schunk., Barry, J., Zimmerman. (2012). Self-Regulation and Learning. doi: 10.1002/9781118133880.HOP207003

Dobler, E. (2015). E-textbooks: A personalized learning experience or a digital distraction? Journal of Adolescent and Adult Literacy, 58(6), 482–491. https://doi.org/10.1002/jaal.391

Ely, D. P., & Plomp, T. (2018). T H E Promises of E D U C a T I O N a L T E C H N O L O G Y : a Reassessment. 231–249.

Ernawati, I., & Sukardiyono, T. (2017). Uji Kelayakan Media Pembelajaran Interaktif Pada Mata Pelajaran Administrasi Server.

Gherheș, V., Stoian, C. E., Fărcașiu, M. A., & Stanici, M. (2021). E-learning vs. Face-to-face learning: Analyzing students' preferences and behaviors. Sustainability (Switzerland), 13(8). https://doi.org/10.3390/su13084381

Gómez-Pablos, V. B. (2017). Project-based learning (PBL) through the incorporation of digital technologies: An evaluation based on the experience of serving teachers. Computers in Human Behavior, 68, 501. https://doi.org/10.1016/j.chb.2016.11.056

Haidir, Salim. 2014. Strategi Pembelajaran (Suatu Pendekatan Bagaimana Meningkatkan Kegiatan Belajar Siswa Secara Transformatif). Medan: Perdana Mulya Sarana