EFL Learners’ Attitude toward Educational Technology: A View from the Appraisal Theory

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Abstract: This study cultivated students’ attitudes toward educational technology through the appraisal theory. To achieve this aim, data were collected from the written responses of the open-ended questionnaire written by 40 students majoring in English Language Education Department in one of state university in Bali taking Strategy and Learning Design Course. The collected data were analyzed qualitatively by following Martin & White’s (2005) framework of appraisal theory. The findings revealed that the EFL students had a positive attitude toward the educational technology used in the classroom. It is evident from their positive reaction-appreciation and valuation-appreciation of the education technology. It is also apparent from their capacity-judgment about their capability and learning performance and their positive emotional reactions to educational technology. Another point highlighted is the connection between their attitude and principles of technology and pedagogy. The results suggest lecturers integrate educational technology with the educational principles for effective teaching.

Key words: appraisal theory; attitude; educational technology; online learning

Abstrak: Penelitian ini bertujuan untuk menggali sikap pembelajar bahasa Inggris terhadap penggunaan teknologi pembelajaran dilihat dari teori appraisal. Untuk mencapai tujuan tersebut, data diperoleh melalui kuesioner terbuka dari empat puluh mahasiswa Pendidikan Bahasa
In English, at one of the provincial universities in Bali that takes the strategy and teaching design courses. Data acquired were analyzed qualitatively using the framework of the Theory of Appraisal from Martin & White (2005). The research results show that students have a positive attitude towards the use of learning technology. This can be seen from the appreciation (reaction and evaluation) of the technology used in class. Students' positive attitudes are also shown through self-evaluation (judgment) and feelings (affect) that are good (positive) towards the technology. Another important finding from this research is the close relationship between their attitudes with the principles of using technology that are disengaged with the principles of teaching English. From these findings, the researchers emphasize the importance of using learning technology based on pedagogical principles of teaching English.

**Kata kunci:** Pembelajaran Daring, Sikap, Teori Appraisal, Teknologi Pendidikan

**INTRODUCTION**

In today’s teaching and learning, there have been mushroom practices in the use of technology, for example, interactive blackboard (Google Jamboard), learning management system (Moodle, Google Classroom), and synchronous learning platforms (Zoom, Google meet, and Cisco Webex). Ample of research has documented how these educational technologies are implemented in classrooms (see Amandu et al., 2013; Aswir et al., 2021; Octaviani et al., 2021; Okmawati, 2020; Sweeney et al., 2021). These studies show that such educational technology can motivate and promote students’ learning.

According to Lazar (2015), educational technology performs three functions; as tutors, teaching tools, and learning tools. When technology functions as a tutor, it helps teachers teach students about particular learning contents, such as videos of teachers’ explanations/presentations, exercises, and feedback. Teachers equip the students with a complete lesson on a particular topic to learn, practice and discover the learning materials. When technology serves as a teaching tool, it helps teachers design and conduct meaningful teaching for their students. In a similar vein, when the role of technology is as a learning tool, it enables students to explore the learned topics, learn the learning materials by themselves, monitor their progress, and regulate their learning. In
In this case, teachers need to have sufficient digital literacy competency to employ the chosen technology for effective teaching.

Many scholars argue that educational technology is employed to make the teaching and learning process effective (Ahmadi & Reza, 2018; Dhawan, 2020; Lazar, 2015; Tartavulea et al., 2020). Nevertheless, stand-alone technology is not sufficient in running effective teaching and learning. To perform effective teaching with such educational technology, teachers are not supposed to use it as a mere object for innovation or creativity, but they also need to consider pedagogy principles, i.e. education and teaching and learning principles (Shahneaz et al., 2014). Renandya (2021) suggests that teachers consider the following pedagogical principles when using educational technology: First, educational technology should promote and/or increase student participation, motivation, deeper learning. Second, it should allow teachers to check, monitor, and evaluate student learning. Third, it should provide rich, exciting, and meaningful language input and exposure. A question is then raised whether we, as teachers, have performed effective teaching with the educational technology that we use.

Many studies have attempted to answer the question by investigating students’ attitude toward educational technology in classrooms. According to Hoque et al., (2020), investigating students’ attitude is vital as their attitude contains a favorable or unfavorable condition of using educational technology in their learning. Thus, their voices are beneficial to provide input for lecturers to develop effective teaching through the integration of technology. Due to its importance, they conducted a study to investigate students’ attitude toward the use of educational technology. To gain data, they distributed a structured questionnaire to 99 undergraduate students via email and Whatsapp application. The results showed that most of the students held a positive attitude toward educational technology used by the lecturers. Amalia & Nugraha (2021) surveyed 99 student-respondents about their attitude on the effectiveness of the implementation of e-learning. The data were collected through questionnaires and analyzed using Pearson’s correlation. The results showed that most of the students perceived that e-learning was implemented effectively by the teachers.

In addition to these studies, research concerning students’ attitude has been flourishingly conducted by scholars in more specific research contexts. In the context of English language teaching, AlAdl (2016) conducted a study to investigate students’ attitude towards an e-learning English model named Learn English Pathways (LEP). To collect data, he distributed a questionnaire to 100 respondents. The data were then analyzed statistically by using a t-test. His results
showed that LEP was perceived positively by the students. Correspondingly, Truong (2021) found that students learning speaking skills at the tertiary level perceived Moodle as a rewarding educational technology used in the classroom. This has resulted from the questionnaires distributed to them. Interestingly, uncovering students’ attitudes were not only limited to be conducted in English language teaching contexts but also in a various educational context (e.g., Peerapolchaikul et al., 2019).

These reviewed studies show the effectiveness of technology in educational contexts from the students’ angles. The present research bears a resemblance to the previous studies, but our study employed a different approach in analyzing students’ attitude, i.e., the appraisal theory. Appraisal theory is one of discourse semantic resources mainly concerned with evaluation construing interpersonal meanings (Martin & White, 2005). It provides a systematic tool and robust framework consisting of three semantic domains: attitude, engagement, and graduation. These domains categorize the register used by the language user.

Among three domains of appraisal framework (attitude, engagement, and graduation), our study focused on attitude. Attitude system concerns with the language users’ positive and negative feelings, including emotional reactions, judgment of behavior, and evaluation of things. These can be expressed through selected lexical items explicitly and implicitly. The attitude domain is divided into three regions of feeling: affect (to evaluate human emotions, perceptions, and cognitions), judgment (to praise people’s behaviors/actions), and appreciation (to praise man-made things or natural phenomena). In this research context, attitude resources were employed because we sought to explore students’ thoughts, feelings, and opinions regarding the educational technology used by their lecturer. By following the attitudinal analysis framework, we argue that we could uncover their attitude from their language evidence. This evidence can provide a clear and authentic justification of their positive or negative attitude toward educational technology. For example, in the data extract, the student wrote, “the Moodle platform used by the lecturer is interesting.” The word “interesting” conveys a positive reaction (attitude). However, the word “complicated” in “The Moodle platform used by the teacher is complicated” conveys a negative composition (attitude).

From their linguistic evidence, we can understand how positive or negative the students feel about the educational technology. Hence, the present study presents resources for attitudinal meaning on the use of educational technology that aims to answer the following research question: What are the students’ attitudes toward education technology as viewed from the appraisal
theory? The education technology in this context is specified into the use of Moodle combined with Cisco Webex, the one used in the research setting. The attitude is then seen from the pedagogy principles to see to what extent the use of education technology meets the pedagogy principles.

This study is critical to conduct for two reasons. First, it provides readers with a different methodological lens to uncover students’ attitudes. Second, it explores sources of students’ attitude. In so doing, lecturers or teachers could use the result of the study to reflect on their educational technology’s implementation to improve a better integrated educational technology teaching practice.

In the next sections, we describe the research methodology, the results and discussion, and conclusion. The research methodology describes the context of the study, the research design, data collection procedures, and data analysis. The results and discussion elaborate students’ attitude toward educational technology, i.e., Moodle combined with Cisco Webex as viewed from the appraisal theory. Then, it is connected to the pedagogy principles to see to what extent the use of technology meets pedagogy principles.

**METHOD**

**A. Research Design**

The present study used a qualitative approach. We chose qualitative research as it allowed us to collect authentic data in the research setting. Following Creswell (2007), a qualitative study was administered in this study to describe students' attitudes in experiencing educational technology used by their lecturer in their online learning course. In implementing this qualitative study, we followed the qualitative research characteristics by gaining data from the natural setting in which the key instruments were the researchers; exploring the views and perspective of the research participant concerning the phenomenon under study; and using reasoning skills throughout the process of the study.

The present study employed a discourse analysis as a qualitative inquiry form. This technique provides a systematic way of analyzing how language is used in the context of the study (Shanthi et al., 2015). By implementing this technique, we sought to understand students' attitude by investigating the underlying meaning of what they said and how they said about the educational
technology used by their lecturer. To do this, we did a close reading of the students' reflections to get engaged with the texts to explore the phenomenon under study by interpreting the text. Then, we categorized qualitative textual data into clusters of similar entities or conceptual categories to explore students' attitude in their written responses.

B. Source of Data

Data of this study were derived from forty reflections written by the semester four students of English Language Education of one state university in Indonesia taking a Teaching Strategy and Design course. It is a 3-credit course aimed to provide an understanding of various popular teaching strategies. It is a compulsory course for semester four students majoring in English Language Education. The total numbers of students registered in this course were 40. The course was designed to facilitate student teachers build knowledge and practical skills to design and implement appropriate teaching strategies for their future students.

C. Research Procedures

Before collecting data, we gained permission from the students to become our research participants. After getting permission, we informed them of our role as researchers, not their lecturers, to reduce the issue of power status, which can interfere with the data (Patnaik, 2013). We also informed them to keep their score and identity confidential to avoid research bias and get objective responses. As for data collection, we distributed an open-ended questionnaire in Google Form and asked them to fill it in objectively.

D. Data Analysis

The collected data were classified into the following emerging themes. a) how they felt about the use of the educational technology in their online learning; b) how the delivery mode of the educational technology helped them to gain their learning objective; c) how the lecturer gave feedback by using the educational technology; d) how teaching activities were designed by using the educational technology; e) how the educational technology provided them an opportunity to interact with both the lecturer and their friends; f) how the educational technology helped them regulate their learning; and f) how the educational technology motivated them to learn.

The data were analyzed with Martin and White's appraisal theory (2005). For the appraisal framework, we focused on attitude analysis, which has three
domains: affect (to evaluate human emotions, perceptions, and cognitions), judgment (to praise people's behaviors/actions), and appreciation (to praise man-made things or natural phenomena). The steps of data analysis are a) identifying the clauses. As the unit of analysis is a clause, we first identified the clauses in the data; b) categorizing data. We categorized the clauses based on the attitude system consisting of affect, judgment, and appreciation. We highlighted the student participants' registers using different colors and coded them based on the typology attitude proposed by Martin & White (2005), c) re-reading the findings to ensure that they were relevant to the research objective; and drawing conclusions

E. Trustworthiness

To ensure the validity of the research, we applied two out of three methods in qualitative research (Carter et al., 2014), namely investigator triangulation and theory triangulation. In terms of investigator triangulation, we involved two researchers in analyzing the data. In the beginning, each of us analyzed the data by ourselves. After that, we met and discussed together to seek agreements on the identified themes. We compared theories from similar studies in the results and discussion sections in theory triangulation.

RESULTS AND DISCUSSIONS

This section presents research findings containing students’ attitude toward the use of educational technology viewed from the appraisal theory framework.

Figure 1:
The chart of the students’ attitude towards the use of educational technology

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The research findings then are discussed to what extent the educational technology has met with the pedagogical principles. The result of analyzing students' reflection on the use of educational technology is shown in Figure 1. The findings in Figure 1 suggest that students' attitude towards the use of Moodle combined with Cisco Webex is very positive. It is indicated through all positive appreciation (54%), judgment (37.10%), and affect (8.6%).

Students hold a positive attitude towards the use of Moodle combined with Cisco Webex for teaching as well as their performance resulted from using Moodle combined with Cisco Webex. Each domain of attitudinal resources is described below.

A. Appreciation

As shown in Figure 1, appreciation is the predominant attitude held by the students. According to Martin & White (2005), appreciation evaluates both positive and negative evaluations of 'things' such as educational technology. It has three subtypes, namely a) reaction (it is related to affection, e.g., the painting is beautiful); b) composition (it is related to perception, e.g., The picture is symmetrical); and c) valuation (it is related to cognition, e.g., This decoration is unique).

Appreciation can be expressed explicitly or implicitly. The italic words in the sentences indicate explicit positive appreciation. Following this framework, our study shows that students evaluate the use of educational technology positively. This can be seen from the choice of words used by them in their reflections, as follows.

Extracts:

1. It is helpful to help me to understand the materials.
2. It is engaging as it can build interactions between students and the lecturer and students and students.
3. It is motivating because I can learn the materials from many sources
4. It is interesting as it allows me to interact with my friends and lecturer lively

As seen in Extracts 1-4, the students used appraising items of "helpful", "engaging", "motivating", and "interesting" to show their positive reaction towards the use of educational pedagogy. These lexical items represent the
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students' evaluation of the phenomenon, that is, the educational technology implemented by their lecturer.

In Extract 1, the appraising item "helpful" is used to evaluate the educational technology positively as it could facilitate him/her to understand the learning materials with ease. This statement is further supported by another student's reflection as presented in Extract 3. In this extract, the student used the word 'motivating' to show his positive evaluation of the educational technology as it contained various learning materials. In brief, the educational technology, in this case, Moodle combined with Cisco WebEx can help students understand the learning materials well. This finding goes along with studies conducted by Ardinengtyas & Himawan, 2021; Keržić et al., 2017 Lin et al., 2016; Rochmawati et al., 2019. They found that Moodle for online learning can facilitate e-learning because it contains various features such as resources where the lecturer can upload their various instructional materials.

In Extracts 2 and 4, the students used the register "engaging" and "interesting" to appraise the use of educational technology as it could provide a room for them to interact, not only with the lecturer but also with their peers. These extracts indicate the interaction is done through synchronous and asynchronous. In this study context, the interaction had been conducted lively through chat and Cisco Webex meeting. Besides providing a room to interact through these two platforms, the students also could interact via 'Forum' section. Here, students could discuss, share their ideas/opinions, and collaborate with other students. Even in our study, we found out that students who were commonly passive or "silent" in the traditional class tend to be active. They frequently got involved in the discussion forum, posted comments, or asked questions for clarification. They also reported that through the discussion forum, they could be more aware of their language and trained to use their writing skills more. This can be seen in the following extract.

Extract 5: I am an introverted student. I tended to be a passive learner in a face-to-face class. But, when I used Forum, it helped me to express my opinions freely.

Similar to Extracts 1-4, the word 'help' in Extract 5 also indicates students' positive attitude toward the educational technology used by the lecturer. The lexical items "helpful", "engaging", "motivating", "interesting", and "help" are categorized as appreciation-reaction. The linguistic evidence illustrates that the educational technology implemented by the lecturer could facilitate them to engage with the learning materials, teachers, and their peers. The use of
Educational technology provided the students with interesting and motivating learning activities. Besides, it provides various materials that can be accessed easily. Furthermore, it could boost their motivation to learn. In so doing, they could attain their learning objectives well.

Besides expressing their positive attitude by using appreciation-reaction, the students also expressed their attitude using positive valuation (appreciation-valuation), as shown in the following Extracts 6-8 below.

Extracts:

5. It is a good platform.
6. It is efficient for discussion through video call Webex
7. It is an effective platform to help me to achieve the learning goals

The words "good," "efficient," and "effective" were used to evaluate how well the educational technology was for their learning. They came to these thoughts as they had experienced the features of Moodle combined with Cisco Webex meeting for their learning. These shreds of evidence indicated students' positive attitude towards the use of educational technology. This research finding validates studies conducted by Maulana & Lintangsari (2021); Peerapolchaikul et al., (2019); Risten & Pustika (2021); and Truong, (2021). Through the appraisal analysis, our study also corroborates these research findings.

Interestingly, our study also exposed the symbiotic relationship between technology and pedagogy. First, the positive value of Moodle and Cisco Webex for discussion and interaction represents the pedagogical value of collaborative learning-students achieve their learning goals via a group-based approach [interaction] (Aikina & Bolsunovskaya, 2020). What is more, from the view of sociocultural theory, such interaction or discussion plays a role as scaffolding or mediation provided by a more capable being (i.e., the teacher) to help learners move from their actual to potential development (i.e., students can understand the materials) (Finnegan & Ginty, 2019) This kind of interaction can help students understand the materials and achieve the learning goal.

Second, the next positive value of Moodle and Cisco Webex is for motivating students' learning through attractive and integrative tools. The students described that these combinations of delivery modes motivated them to learn because they did not feel isolated. Amandu et al., (2013) contended that
educational technology could maintain students' motivation and interest to search knowledge and practice the skills needed. The entangled connection between technology and pedagogy is also emphasized by Renandya (2021). He emphasized the importance of considering some pedagogical principles when using technology in EFL classrooms. One of the principles is whether the apps can increase students' motivation and engagement. Our research findings proved that the Moodle platform combined with Cisco Webex had fulfilled the intertwined technology-and-pedagogy principle. Furthermore, the two positive values supported Finnegan & Ginty's (2019), stating that technology-enhanced learning can increase learners' motivation and collaborative learning.

B. Judgement

Referring to Figure 1, the second predominant attitude held by the student-respondents. Judgement evaluates positive and negative attitudes toward people and how they behave (Martin & White, 2005). It includes normality (how unusual someone is, e.g., It is very strange of him to act that way), capacity (how able someone is, e.g., He is a clever man), tenacity (how resolute someone is, e.g., He is determined to keep going), veracity (how truthful someone is, e.g., He is honest), and propriety (how ethical someone is, e.g., He is a generous person).

The examples of their positive judgment are shown in the following extracts.

Extracts:

8. All materials and exercises have been provided in the e-learning platform so that I can learn the materials well.

9. I became more responsible for all materials and exercises provided in the e-learning platform, and for my own learning.

10. I can assess my classmates, and so do they.

11. I can monitor my own learning

12. I became more disciplined as the platform did not allow me to submit my assignment late

13. I developed myself as a critical and reflective learner

The appraising items "can learn", "became more responsible", "can assess", "can monitor", "more disciplined", "critical" and "reflective" in Extracts 9-14 show
students' positive evaluation on their capacity (judgment-capacity). Extract 9 indicated that the student considered himself/herself able to learn the learning materials very well as the educational technology used by the lecturer provided them with various learning materials and exercises done by the students. By doing this, he/she could monitor their own learning (Extract 12) as the educational technology gave access for the students to see the score/mark/feedback given by the lecturer on their submitted exercises/assignments.

The student appraised himself/herself as a responsible and disciplined student (Extracts 10 and 13) because through the use of educational technology, the students were trained to submit the assignments on time. More importantly, the use of educational technology had shaped the students to become critical and reflective learners as they were guided to assess their own learning and their peers' performance. In addition, they also learned from feedback from their friends and their lecturer (Extract 11). In short, in terms of the learning performance, the students gained some advantages of using Moodle combined with Cisco WebEx, namely a) students can manage their own learning to access, learn, and work according to their own pace of learning; b) they can learn the material well; and c) students benefit from assessing their friends' words and being assessed.

In Extract 7, the student found him/herself to be responsible for his/her own learning. From the pedagogy lenses, this finding has to do with learner autonomy. Learner autonomy is defined as taking charge or controlling one's own learning. The autonomy can take the forms of selecting methods or techniques to be used, monitoring the procedure, and self-evaluation. More to that, the nature of learner autonomy can take the forms of managing his/her own learning according to his/her learning pace and assessing one and another's work. Through the use of Moodle combined with Cisco Webex, they learned to regulate their own learning in which they had to manage their time well to learn the learning materials and to submit the assigned tasks/assignment based on the agreed schedules. Gradually, the use of educational technology has helped the students become more aware of their own learning progress and become critical and reflective learners.

In short, technology and pedagogy are or should be in harmony. The harmony of pedagogy and learner autonomy has been confirmed by Lai (2019), arguing that technology serves as a practical means for learners to take charge of their own learning.
C. Affect

Following Figure 1, affect is the third predominant attitude type used by the students. As stated by Martin & White (2005), affect deals with positive and negative feelings. This is divided into four subsystems: happiness (e.g., I am happy), security (e.g., I am confident), satisfaction (e.g., I am satisfied), and inclination (e.g., I miss my sister). Data analysis shows that students had positive emotional reactions when using Moodle combined with Cisco Webex, as illustrated in the following extracts.

Extracts:

1. I am interested in learning the material through the platform because there are many activities there.
2. I like the platform because I can interact with my friends.
3. I am happy because through e-learning, I can interact with my lecturer and my friends.
4. Personally, I feel challenged to work on every assignment given by the lecturer in this course.
5. I am also very enthusiastic about attending this online lecture because the activities are enjoyable, and I really like it.
6. I feel more confident to engage in the discussion.

The students use the words "like" and "happy" to express their happiness. The registers "interested" and "enthusiastic" were used to express their satisfaction. The lexical items "challenged" and "confident" express students' security. These registers showed their positive feelings when using Moodle combined with Cisco. These positive emotions can be used as a catalyst for the students to attain their learning objectives well. According to Stephan et al., (2019), students' positive emotions positively correlate with their academic performance. When the students are happy and enjoyable with learning, they can boost up their motivation to learn. More prominently, students' happiness and satisfaction can be used as a key to measure the quality of e-learning (Rajabalee & Santally, 2021). When the students are happy and satisfied with e-learning, it is believed that the e-learning has been executed effectively and has accommodated students' needs.
Regarding technology, the students' emotional reaction has become a technologically oriented pedagogy. Morris & Parker (2014) urged that a pedagogical strategy that counts on technology seeks to satisfy four general goals. One of them is engaging students. The findings confirmed that the students got engaged with such technology-enhanced language learning. In that case, the use of Moodle combined with Cisco Webex has met the goal.

CONCLUSION

The findings and analysis done through the appraisal theory confirm that the student-participants hold a very positive attitude towards the use of educational technology (i.e. Moodle combined with Cisco Webex). This is realized through lexical items used by the students to indicate positive appreciation, positive judgment, and positive affect. More critically, it conveys a greater extent to which the technology meets the pedagogy principles. First, students’ positive attitude towards qualified interactions as resulted from the use of educational technology interweaves with the pedagogy principles of collaborative learning and scaffolding. Such a technology-and-pedagogy principle is believed to help students achieve their learning goals and improve their actual development to potential development. Second, students’ positive attitude towards their ability in managing their own learning is interlaced with the pedagogy principle of learner autonomy. In other words, the technology serves as a practical means for learner autonomy. Third, students’ positive feeling when using the educational technology has met the principle of engagement in educational contexts.

In terms of the pedagogical implications gained for online learning implementation contexts, this study provides some considerations for lecturers/teachers to always integrate the pedagogy principles such as what aspect of language, of language learning, and of students’ cognitive, affective, and psychomotor will be benefited. Since this study focuses on describing students’ attitude in a teacher education context, which is more theory orientation, it is recommended for other researchers to conduct a study in other areas of investigation, such as in English skills, that requires students to attain practice skills in order to provide a more detailed and various empirical findings concerning how students perceive e-learning practices in higher education contexts.
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