A B S T R A C T

The effectiveness of e-learning has some uniqueness and challenges in terms of obstacles faced, and its learning model. This research employs the observation method by observing both spoken and written data, survey, and interview. Data was obtained from 80 higher institutions students and 50 lecturers of four state-owned institutions, and four private institutions. The results show that the effective learning conducted through e-learning has met the expected standard. Through the learning process, the students were provided by motivational training, and educated with character building based on their religious belief. Moreover, the lecturers carried out their teaching process through WhatsApps Group, zoom meeting and/or google meet applications, and provided the students with instructions and guidance. The instructions and guidances were particularly concerned on how to conduct the online classes with the camera on, comprehending the Semester’s Lesson Plan (SLP) for the whole semester, providing feedback on the materials, examples, video assignments, and weekly tasks given. Besides that the instructions and guidances were also specified for the students to seize the opportunities to present their tasks virtually. Likewise, the supports from the institutions are also needed concerning the committee for quality assurance in the implementation of E-learning, draft, attendance list, journal, contract of the course, motivational to the lectures in implementing E-learning, and video conference room (Vicon) as well.

KEYWORDS

Culture, effective e-learning, higher institutions, language review, psychology

1. INTRODUCTION

The implementation of the e-learning in Indonesia is carried out in accordance with the Circular Letter of Ministry of Education and Culture Number 4, Year 2020 (Pelaksanaan Kebijakan Pendidikan Dalam Masa Darurat Penyebaran Corona Virus Diases (Covid-19), 2020). In regards, the ministry stated that all activities in educational institutions should be conducted from home. Moreover, in the current globalization era and Industrial Revolution (IR) 4.0, higher institutions are demanded to provide their services utilizing digital technology in their learning system (Widayati, 2020).

As highlighted by (Kristianti, 2019; Lilimiwirdi & Nelfira, 2016) that there is a big impact of the internet on the development of language and culture among teenagers in Padang City. There have been many higher institutions performing e-learning where the education standard covers the graduate competence, content, process, educator, and education personnel, facilities and infrastructures, management, and grading standards (Mulyasana, 2011, p. 120). There are two ways performed in terms of evaluation by measuring and marking. Measuring is conducted through comparing one measurement to another, and it is quantitative. Whereas marking is the decision made on something either good or bad, and in the form of qualitative (Izza et al., 2020, p. 11). The learning success of the students can be said effective when
they can master 75% of the learning.

Wortuba & Wright cited in Anwar (2017, pp. 437–474) pointed out that there are seven indicators of effective learning which are well-organized learning materials, effective communication, enthusiasm on the learning materials, positive attitudes onto the students, fair grading, flexibility on learning approach, and good results from the students. Most of highly motivated students want good result or grade so that they increase their performance of learning and learn diligently in order to achieve their goal (Ferazona & Suryanti, 2020; Fitriyani et al., 2020).

There is a different between the effective learning that has been conducted as mentioned above with the present effective learning. The latter effective learning is analyzed through many aspects such as review on language, psychology, and culture. Ekayati (2017) and Sundari (2015) stated that the primary goal of learning is to measure its result, to recognize the weaknesses of the method and technique used in the learning process. One of the approaches used in overseeing the weakness of this effective learning is semantic approach. Suryaningrat (2013) and Rudi (2016), highlighted that since semantic is derived from Greek which is *sema* (noun) means “mark” or “symbol”, and *semaino* (verb), means “marking” or “symboling”, thus semantics can be said the meaning which can be marked and symbolized. The meaning will be changed when the one being marked and symbolized changing as well. Since the meaning is connected through computer, Abdulhak & Darmawan (2017, p. 87) pointed out that the use of computer and internet in learning communication depends on its ability in receiving, storing, and processing the information and then producing it in a great amount of number for long period of time, besides using and multiplying it in unlimited quantities. The devices are advanced even though their use can be interrupted by signal and weather.

Verily, in order to figure out the learning responds, psychology analysis is required. Irham & Wiyani (2017, p. 44) believed that thinking process and the stored of memory and knowledge on someone is occured in their brain. Human’s brains is consisted of two parts which is known as left and right hemisphere. The right hemisphere works randomly, whereas the left hemisphere focuses on the process of receiving language, information, lesson, calculation, logic, and rational. Meanwhile, Sastra, Haq & Handoko (2019, p. 149) came up with the thought that the damage occured in the left hemisphere causes the problems in processing the language, meaning, even though one can listen to the utterance but she or he cannot comprehend those utterances. If the human’s brain is in good condition, then the process of obtaining the language and the meaning would run well. Vera (2020) in her research initiated to create a polite and good listener two-way communication where the students would have the courage to be engaged actively in giving their opinions. Hence, the active, creative, and innovative communication strategies are proved to be able to reduce the boredom during the online learning where at the same time increase the quality of the learning itself.

The review on culture is needed particularly for the character building. A person’s character will be good when it is based on moral value and ethical behavior agreed by community (Santika, 2020, p. 10). Kurniawan (2017, pp. 175–191) stated that each higher institution must have a pattern on its students’ character building in line with its vission, mission, and the character of the institution. The strategies used in implementing the character values are religious, honest, tolerance, discipline, patriotism, and others.

The aforementioned research is in contrast to this current research in terms of the implementation of character building which are shown in the students’ attitude through their attendance, being active in the class, and the implementation of spiritual, social, and culture values in their character. It can be overseen from the online learning, working experience, research or community service that have been carried out by the students within the learning process and in the internship program. During the process of the online learning, then the students can master the knowledge, the competence, and the skills transferred. Furthermore, to measure the students’ successfulness in the process of online learning is performed through observation, self-assessment, and peer-review. In order to measure the knowledge obtained is carried out through written and spoken tests, and the tasks given. Whereas, to evaluate the
The mastery of the skills obtained is done through the practice tests, projects, and portfolios.

2. METHODS

This research uses qualitative approach where the procedures taken resulting descriptive data in the form of spoken and written utterances, and behavior that can be observed (Gumilang, 2016; Bogdan & Taylor cited in Moleong, 2012; Octavia, 2018; Sulistiono, 2019; Yulianto & Nugraheni, 2021). The data were collected through observation, survey, and interview. Sudaryanto (1993, p. 133), Widianto & Ida Zulaeha (2016), Wati et al., (2020), pointed out that the observation method was performed through observing by listening to the existing utterances of spoken and written language. The samples were obtained from the questionnaires distributed to 80 students and 50 lecturers of eight higher institutions; four state-owned and another four from private higher institutions.

The data was collected and sorted through the interview. The interviews performed with the lecturers and the students were in the form of open and close-ended structure. Meanwhile for the observation, it was carried out by paying a visit to the chosen institutions, and involving during the online learning process (participating in the video conference). The data collection was derived from the activities, events, objects, circumstances, and particular situations during the online learning. In order to strengthen the data obtained, videos, photos, logbooks, the lecturers and the students’ attendances, and the learning journals were also compiled and recorded.

In addition, the questionnaires data was analyzed using the statistical and non-statistical analysis. The statistical analysis was conducted by examining, selecting, eliminating, processing, and data modelling resulting the primary and secondary data. The primary data was derived from the sources, whereas the secondary data was taken from the third party such as scientific papers, tasks, and others. The next step was analyzing the data obtained qualitatively, quantitatively, regressively, inferentially, and descriptively. Moreover, the data analysis was also performed through non-statistical, which was descriptively analyzed and interpreted using critical thinking, comparing, and synthesizing.

3. RESULT

The websites used for the online learning in these eight higher institutions can be elaborated as follow: First, Andalas University applies iLearn (Interactive Learning) platform at URL: http://ilearn.unand.ac.id, http://ft.ilearn.unand.ac.id, http://fk.ilearn.unand.ac.id. Second, Padang State University applies E-learning platform at URL: https://elearning1.unp.ac.id. Third, Politeknik Negeri Padang applies SPADA platform for the e-learning. Fourth, the Islamic University of Imam Bonjol Padang has https://learning.uinib.ac.id for their e-learning URL. Fifth, Indonesia Putra University uses https://upiyptk.ac.id. Sixth, Padang Institute of Technology carries out their e-learning through URL https://teknoilistirikd3.itp.ac.id. Seventh, STKIP PGRI has at http://stkip-pgri-sumbar.ac.id. Eighth, STMIK Indonesia Padang uses the URL stmikindonesia.ac.id, and E-learning STMIK Indonesia Padang. In this regard, the e-learning platform is utilized by the lectures and students to virtually meet and interact between one another.

3.1 The Effectiveness of E-learning from the Students’s Perspective

From the students’ perspectives, learning effectiveness is supported by the media used. E-learning is the most popular used media service with a percentage up to 40%. It is followed by SPADA for 38%, whereas iLearn and e-study are only for 15% and 7%. For other application used such as zoom meeting, the percentage is 36%. This application is the most commonly used by students in private and state-owned higher institutions for their e-learning. Other applications utilized by the students are WhatsApp for 24%, Google Meet for 21%, Google Classroom for 15%, Edmodo for 3%, and unspecified for 1%. Concerning the teaching materials set by the lecturers, 23% is in the form of power point, 22 % in document or word, 21% in Semester Lessons Plan (SLP), 15% in syllabus, 10% for video, 10% in URL, 4% in folder, and others 0%. Those teaching materials has a compelling role related to the e-learning process. Based on the data mentioned above, the higher rate for using the online learning was because it was easy to use for the learning process.
The Effectiveness of E-learning Process

The effectiveness of e-learning can be seen in Fig.1. First for the teaching-learning process delivered by a lecture to all students through ppt, word, book, module, video, and others is 35%. Second for the learning process conducted by the students, the percentage is 59%. Third, the concurrence process is 6%. As the number for the empowerment is lower, therefore providing motivational training to the students is one way that can be developed. It is because the flexibility of the online learning schedule and its time management even though there is a few challenges in interaction (Weldon et al., cited in Setiadi & Bramastia, 2022). Then continued by educating them with character building in accordance with their religious beliefs. Lectures can set up examples, ask for feedback from the tasks assigned to the students like video assignments. In order to set up the concurrence, the students should turn on their camera during the e-learning process. Psychologically, the activities that make the students unable to focus are 28% for doze, 25% for boredom, 21% for poor understanding, 11% for laziness, 7% for hardly waking up, 6% for starving, and 2% for sleep. By turning on the video, it is expected that the lectures can lead the students to be actively participate and under their control. Along the way, planning monitoring or feedback should be employed during this e-learning process. Based on the research’ result, the feedback is occurred in the form of assignments for 26%, Mid Term Test for 21%, Final Term Test for 19%, quizzes for 18%, and exercises for 16%. The setting up of assignments have become the mostly used form comparing to exercises. It is because real time learning process consumes plenty of time and internet quota. To some extent, the quantity of submitting the e-learning assignments is mostly weekly, daily, and monthly.

Fig 1: Educational process through online learning from the students

Fig 2: Challenges on Facilities and Infrastructures for E-Learning
The Challenges on Facilities and Infrastructures for E-Learning Implementation

The implementation of e-learning encounters many hinders. This can be seen in the following Fig. 2.

The highest disruptions from the survey results are signal or network interference for 29%, environmental disturbances for 14%, weather issue or power outages for 13%, SIM card balance for 12%, availability of smart phones for 8%, living in a remote area for 7%, and availability of computers for 4%. These results show those challenges mentioned above are the enormous obstacles in implementing e-learning. Undoubtedly, this phenomenon should be a consideration for numerous parties to solve them, especially the government.

The Challenges of the Learning and Practice through Online from Students’ Perspective

Some of the challenges experienced by students are black out that makes them unable to access the internet to study. Then boredom and sleep notion due to lack of motivation and understanding on the learning materials. Learning subjects which are difficult to comprehend through the online learning such as Skill Lab/Clinical Skills, Financial Mathematics, Company Budgets, Computer Programming Mathematics, Statistics, Teaching practice, and others. Other challenges faced by the students are 1. The complexity of following the steps and procedures set by the lecturer 2. The network issues, and overload assignments. 3. Poor communication. 4. Failure to understand the steps given for workshop and/ or laboratories learning. 5. Unable to work in the field. 6. Practice classes are performed when E-learning is ineffective. 7. Difficulties to attend the practice classes due to offline learning. 8. Limited time.

Effective Learning Outcomes within Students

Furthermore, the effective learning methods can be broken down as follow: 1. The lecturers can start the courses through WhatsApp Group (WAG), and Zoom, then ask the students to read and understand the Semester Lesson Plan (SLP), Learning Contract, and participate during the learning process by involving in the tasks given until the end of the learning schedule. 2. The lecturers inform the students to turn on their cameras, convey the online class rules, give quizzes and questions. Whenever the lecturers see that the students are getting bored, then they can make variations by creating games to optimize learning. 3. The lecturers ask the students to present the results virtually via Zoom and Google Meet. 4. The lecturers can control the process of learning by asking questions to the students, discussing the tasks, and asking the summary of the lecture by stressing on the marking that the students will get if they are actively engaged.

3.2 Effective Learning from Lecturers’ perspective

The most common media utilized by the lecturers during the online learning are 60% for the e-learning, 24% for SPADA, while i-learn and e-study are 11% and 5% each. It can be said that majority higher institutions both public and private utilize e-learning to carry out their study. Highlighted by Elyas (2018) e-learning in broaden scope can be the learning conducted through electronic media (internet) formally and informally. Other media used during the online learning are Zoom Meeting 43%, WhatsApp 30%, Google Meet 13%, Google Classroom 10%, Edmodo 4%, and Google Drive, and Google workspace 0%. Zoom is chosen since it is the first online learning application emerged in Indonesia.

The highest survey result for the learning materials is SLP for 22%, PowerPoint 19%, word or documents 14%, video 13%, URL 13%, folder 4%, unspecified items 2%. SLP receives the highest result due to the fact it is nearly every lecturer shared the SLP in their first meeting. Additionally, the lecturers are able to manage learning materials which cannot be uploaded into the online learning system such as Workshop on TV and Radio, Al-Qur’anic verses and hadiths, Math, and other subjects that require the students to be well-trained and skillful by providing the students with recorded video to assist them to comprehend those subjects aforementioned.

The Implementation of Teaching Process by the Lecturers

Based on the research result on e-learning in terms of the lecturers view can be seen in the figure below:
The first one is the teaching process consisting of lectures’ instructions in the form of power point presentation (ppt), Ms. Word file, book, module, video, and others to all the students for as much as 46%. Second is the learning process for about 41% consisting of role, effort, desire, and students’ intention to study in order to gain skill or knowledge. Third is the concurrence which means the ability to act, to produce strength and power to move forward, and it occupies only 13% of the e-learning process. This happens due to the inclination of one-way communication. The challenges are in building two-way interaction between lectures and students, and the inability in seeing the lecturers face to face. Consequently, the quality faces difficulty in order to be upgraded.

One of the ways to increase the concurrence process is by motivating the students through the character building, and the importance of education for each human. As an addition, the lecturers are advised to get the feedback as the evaluation on the lectures performed and assignments given. In line with the research’ result, the highest feedback is implemented in tasks for 23%, Mid Term for 21%, Final Term and exercises for 19%, and quizzes for 18%. Then, the lecturers ask the students to present the summary of the lecture and the tasks given. The interaction between the lecturers and the students in the e-learning process such as explaining the materials and the tasks given are carry out through video call application by turning on their camera, and camera off when they have an urgent matter. All the materials for the learning process can be accessed through the institutions’ e-learning platform where the lecturers are obliged to fill the platform with materials, pictures, videos, links, and teaching recapitulation taken from the attendance icon in the platform by study program and/ or department.

How to Guide the Students to Focus on E-learning

Based on the research’ result, the lecturers can lead their students to focus during the online learning as much as 90%, and 10% for the uncontrollable. Managing the students’ attitude can be conducted in many ways, such as: 1. Lead the students in WAG, Zoom and/ or Google Meet by turning on their camera, greet and remind them to focus and actively engaged in the class discussion concerning the lecture’ materials. It is in accordance to Setyosari’ (2014) highlight that the learning quality refers to the activity, application, and the learning materials; 2. Provide quizzes, questions, feedbacks among students and lecturers during the learning process; 3. Inquire the students to obey the guidance, instructions, and online learning procedure; 4. Expand samples of material and videos to support the discussions on sample questions, and provide formative tasks; 5. Perform more discussions, class interactions, and keep reminding the students to be active and communicative about the exercises and tasks in the WAG; 7. Do frequent follow-up, guidance, and motivate the students on the importance of the online learning. The control can be done by establishing the two-way communication between the lecturers and the students politely and well.

The Obstacles of the E-learning Implementation from the Lecturers’ Perspective

Moreover, the obstacles faced in carrying out the e-learning in terms of the lecturers’ point of view are: 1. 43% is for the students who experience the unstable network’ signals or power outage issues as they live in the villages, so they are not able to understand the material completely; 2. 10%
is for the students who cannot focus since they are sleepy and make them less cooperative or active during the online learning; 3. 7% is for the big number of students in the class so that there is a challenge to measure the students’ understanding on the materials provided as it requires maximum efforts than usual; 4. 3% and 2% respectively are for the limited delivery and unresponsive students on the materials provided. From the data above, it can be concluded that the challenges on the signal and the power outage become the highest obstacles during the implementation of the online learning. These circumstances can be solved by building a good cooperation between the government and the community.

4. DISCUSSION

Developing the effective learning within this e-learning can be elaborated through three perspectives, namely:

4.1 Effectiveness of E-learning From Language Perspective

The effective learning in terms of language is the communication effectiveness, clarity of meaning, and information management on the lessons given. On occasion, signal interference or blackout interrupt the learning resulting the students cannot grasp the knowledge given during the lecture as seen in the following Fig 4:

![Fig 4: Effective learning in terms of language](image)

In this case of distraction, one of the solutions is to create learning videos or record the learning process. Therefore, students can keep up or study it later significantly.

3.2 Effectiveness of E-learning from Psychological Perspective

Psychology is a scientific study of mind and behavior. Its existence is consequential within the e-learning process as the face-to-face meetings are barely conducted. At any rate, motivation and commitment play significant role to keep the spirit on the soul in carrying out the learning. It is because some students are weary and bored when they have to sit in front of their laptops, cell phones, or computers for long period of time. The lecturers are advised to be able to make variations of method in conveying her/his lessons to avoid monotonous delivarence in the learning process. They can implement ice breaking, which is an activity used to eliminate boredom or freshen the atmosphere. As a result, the students become more relaxing. If the atmosphere is conducive, thus the lessons given will be easily acknowledged by the students. Even, giving rewards as an appreciation for the students who can do assignments or answer questions quickly is useful. By having varied methods in carrying out the learning, it is expected that the students will be pleased, comfortable, and motivated to do their online learning.

3.3 Effectiveness of E-learning from Cultural Perspective

The effective e-learning must be in accordance with the character building. Its implementation is related to the importance of seeking for knowledge, ethics, morals, and others. In case there are no religious values that are adhered to, the implementation of regulations will be disorganized such as plagiarism like cheating, copy-pasting, changing their friend’ work, then admitting it as his work. These students’ behavior must be corrected by raising the awareness of being hard working person and entrepreneurship for instance discipline, dependable, honest, avoiding plagiarism, respectful, courteous, independently, creative, and others. Students must have these characters and make them into a habit in their study life and apply these characters into their community.

In order to create effective e-learning at higher institutions, it should be supported by adequate facilities and infrastructures. The e-learning process should be monitored by a quality assurance committee from the institution. This committee is responsible to control the implementation of learning process by assessing the learning and comprehensiveness of what should be transferred and prepared by the lecturers. To ensure whether they have met the standard given, such as SLP, syllabus, learning contracts, assignments, exercises, and others. As well as to motivate the lecturers by
providing grants to prepare their learning media for their course accounts and others. Furthermore, the committee is also responsible to provide several rooms for the lecturers to carry out their online learning in the institutions, such as the particular room for video conference.

5. CONCLUSION

In conclusion, taken from the research’ result, some of the effective learning using the online platform are going well, and some others face challenges. The data also shows that the high rate in the implementation of the teaching process is in contrast to the learning and concurrence processes. Thus, the knowledge given stays only in concepts. It can be because the practical lectures are performed separately from the tutorial through the online learning.

In addition, the method that can be applied is by providing motivational training to students. The lecturers can start their lecture through WAG, give instructions on how to carry out the online learning by turning on their camera, explain, and ask the students to comprehend the lesson plan for the whole semester. Furthermore, the lectures are advised to fill the learning management system (LMS) platform provided by the institution with varied learning materials, and to utilize as many LMS features as possible in order to support their tutorial. Besides that, the lecturers are also encouraged to give opportunities to the students to present their tasks virtually, to provide feedback, learning materials, examples, frequent and video tasks. Above all, the institutions are expected to perform more reseaches related to the online learning, and allocated quality assurance on the implementation of the online learning by carrying out monitoring, motivating the lecturers, and verifying the learning’ attendance, journal, and students’ contract besides accommodating rooms for video conference.

REFERENCES


