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The effect of edmodo based english learning to support students with hearing loss during the COVID-19 pandemic

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Abstract---Deaf students are students who experience hearing loss which results in their limitations in communicating and obtaining linguistic information through the sense of hearing. Therefore, in communicating, deaf students generally use sign language, lip reading, or use communication. Deafness has an impact on language development. One of the factors that can support the language skills of deaf students is vocabulary mastery. In general, students have difficulty in acquiring vocabulary, especially in English vocabulary. Therefore, it is necessary to have a special technique given to deaf children that is more effective in increasing their English vocabulary. The purpose of this study was to determine the effect of Edmodo-Based English Learning to support students with hearing loss during the Covid-19 pandemic. This research was quasi-experimental quantitative. The sampling in this research was carried out purposively sampling. The results showed that there was a relationship between Edmodo media and student learning outcomes with a value of 0.453 on the Pearson bivariate SPSS 21.0 which means the level of the relationship is moderate.

Keywords---*Digital Technology, Edmodo, Covid-19 Pandemic, English Learning, Hearing Loss, Corpus Linguistics.*

Introduction

Currently technological disruption occurs in the world of education, face-to-face learning is carried out 100 percent in schools, suddenly experiencing a very drastic change. It is undeniable, more than 50 percent of students and college

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students come from the lower middle class. As a result of the Covid-19 pandemic, various policies have been implemented to break the chain of spread of the Covid-19 virus in Indonesia. One of the efforts made by the government in Indonesia is by applying an appeal to the public to carry out physical distancing, namely an appeal to maintain a distance between humans, stay away from activities in all forms of crowds, gather, and avoid gatherings that involve many people. These efforts are aimed at the community so that this can be done to break the chain of the current spread of the Covid-19 pandemic.

The government implements a work from home policy. This policy is an effort that is applied to the community in order to complete everything that is done at home. Education in Indonesia is also one of the areas affected by the Covid-19 pandemic. With the limitation of these interactions, the Indonesian Ministry of Education also issued a policy, such as by closing schools and changing the process of teaching and learning activities using an internal network system or online (Nugraha, et al, 2021: 907).

According to Aritantia, et al, (2021: 907) in the Ministry of Education and Culture Number 15 of 2020, learning from home is carried out using distance learning methods which are divided into two types of approaches, there are distance learning within the network which is usually abbreviated online and distance learning outside the network which is usually abbreviated as offline. Online means all activities that are carried out connected to a network of internet connections and computers, while offline can be interpreted as being disconnected from the internet. In the process of implementing online learning, it requires the support of various types of mobile devices such as smartphones, laptops, tablets to be used in accessing information without worrying about being limited in time and place (Gikas & Grant, 2013). Educational units can choose learning between online, offline or both approaches by adjusting the available facilities and infrastructure so as not to affect student learning outcomes.

Currently, the learning process during the covid-19 pandemic is carried out in two ways, namely online using various options such as Zoom, Google Meet, Google Classroom, WhatsApp, or Edmodo when giving material and directly / offline / face to face by taking turns when productive practice according to health protocols set by the government. The use of these two methods can also be referred to as blended learning. E-learning is an online learning process that helps teachers integrate learning materials, provide training and facilitate online discussions (Rodrigues et al., 2019). Through e-learning learning can be done anytime, anywhere, and learning can take place efficiently and effectively (Munir, 2009). One of the e-learning applications used in learning is Edmodo. According to Basori (2013), Edmodo is an attractive application for teachers and students with social elements resembling Facebook (Pinzón, 2017). Edmodo comes with several learning activities, such as Quiz. As for teaching materials, Edmodo supports teaching materials in the form of Files and Links (Al-Kathiri, 2015). The use of Edmodo is expected to facilitate online learning.

Linguistics as a scientific study that makes language the object of its study, becomes one of the branches of science that has an empirical nature. It is called empirical because the data studied and analyzed by linguistics is a lingual fact

that can be observed in the field and the truth can be verified. The empiricism of language which is the object of linguistic study is obtained from the results of descriptive analysis of linguistic phenomena that occur in speakers of a particular language. The language that is the object of linguistic study is the language spoken by humans which is natural and as it is; not made up to fulfill the social functions of the speaker; language is also an interesting and dynamic object of study (Mantiri & Handayani, 2018). Language can be understood as a vital and most important means in the communication process (Firdaus, 2018). Language is a core function for humans in relation to communication, in the personal and individual realms, in addition to the functions of memory, perception, cognition, and emotion. This research was conducted on deaf children. Physically, deaf children are no different from normal hearing children in general. People only know that the child is deaf when he speaks. The impact of deafness is the inability of children to communicate verbally. Most of the causes of deafness are congenital factors, which occur due to heredity or the presence of toxins since prenatal or other reasons. While the deafness that occurs for any reason is caused by various toxins or specific ear infections, for example, otitis media (Carrow-Woolfolk and Lynch, 1982:371).

The main cause of congenital deafness that does not come from heredity is a toxin that attacks the mother during the early months of pregnancy. Toxins that commonly attack are rubella and cytomegalovirus (Northern and Downs, 1978:86), and other causes, such as syphilis, toxemia and diabetes. Hearing clinical evaluation should be carried out as early as possible from the beginning of the child's birth to anticipate the high risk of hearing loss. These high risk factors are (1) a family history of deafness, (2) the rubella virus that attacks pregnant women, (3) a fatal infection, (4) damage or disability of the ear, nose and throat, (5) the birth of a baby with body weight less than 1500 grams, (6) serum bilirubin more than 20 milligrams per 100 millimeters, and (7) the potential for congenital cytomegalovirus (Lloyd and Dahle, 1976:12–22).

English is not only intended for deaf children, as well as students but also for the community. English as a foreign language is categorized into two branches, there are English in general and English for certain or special purposes. English for special purposes or known as English for specific purposes is part of teaching English to students or people who are already working, with reference to the vocabulary and certain skills they need. Teaching in English for specific purposes focuses on one job or profession, such as English for engineering, English for scientific, English for medical professionals, English for waiters, English for tourism and others. English for specific purposes leads to the teaching and learning of English as a second or foreign language which is different from other pedagogical approaches. Learning English for Specific Purposes must be based on the needs and goals of students. It is often said that ESP is a general term that covers a variety of diverse teaching contexts as described by (Rashid et al, 2019). ESP is broadly categorized into English for academic purposes and English for work purposes.

The English used in the learning process for deaf children can be categorized in English with a specific purpose or ESP. English is taught in preparation for use in an academic, professional, or workplace environment. As stated by Paltridge &

Starfield (2016) that English is learned not only for its own sake or to obtain an educational degree but also to facilitate entry in certain environments. Based on the description of the background above, it can be identified problems as follows: How is the influence of Edmodo-Based English Learning to Support Students with Hearing Loss During the Covid-19 Pandemic?

Materials and Methods

This type of research is a quasi-experimental research. A quasi-experiment or is a development of a true experimental design. This quasi-experimental design has class control but does not fully function to control external variables that affect the implementation of the experiment. The quasi-experiment is used because in reality it is difficult to get a control group used for research (Sugiyono, 2011: 77). While the quasi-experimental quantitative research method according to Sukmadinata, 2008: 57-58 is a method that is validating or testing the effect of one or more variables on other variables.

The research pattern used in this study was a nonequivalent control group design. This design involves two groups, namely the experimental group and the control group. The experimental group was given learning using a scientific approach and the control group was given using a conventional approach commonly used in schools, namely learning with a Learning Implementation Plan based on the Education Unit Level Curriculum that applies EEC (Exploration, Elaboration, Confirmation).

The pattern of this research design is as follows:

Group	Pretest	Treatment	Post test
Experiments	O1	X (Scientific Approach)	O2
Control	O3		O4

Information:

O1 = mean pretest experimental group

O2 = mean posttest experimental group

O3 = mean pretest control group

O4 = mean posttest control group

X = learning English with a scientific approach

The research steps using this design are as follows:

1. Determine the sample from the population
2. Determine the control group and the experimental group randomly

3. Give pretest to both groups to find out the students' initial ability
4. Controlling conditions so that both groups are the same, except for the treatment in the experimental group
5. Give posttest to both groups to determine the final ability of students
6. Perform data analysis to determine the final ability of students.

The location of this research was carried out in SLB Negeri 1 Sukabumi, West Java. The study was conducted on June 25 – August 25, 2022. Sampling was carried out using purposive sampling technique. Purposive sampling is a sampling technique with certain considerations (Sugiyono, 2016: 81-85). The researcher used class VIII-A as the experimental class and class VIII B as the control class with the reason that the two classes got a balanced rating. The instruments used in this research are test and non-test (questionnaire). In the linear regression test, if the significance value (Sig.) is less than a probability of 0.05, it means that there is an influence between two variables and vice versa if the significance value is greater than a probability of 0.05, it means that there is no influence between the two variables (Sugiyono, 2010: 270).

Results and Discussions

Nicolas Borg and Jeff O'Hara are two Edmodo developers, they developed Edmodo as a learning platform that has collaboration and is connected between students and teachers, project management, assignments and handling in notification of each activity (Rahmawati et al, 2020: 35). Edmodo can assist teachers in building virtual classes such as real classes in schools that have various features as normal classroom learning such as quizzes, assignments and giving grades or evaluations at the end of each lesson.

Edmodo is a tool as a communication developer during a pandemic. Edmodo as a place for discussion between students by responding to posts that have been provided in it. Assessment as an appreciation of students who have been willing to comment on the posts that have been provided. Posts and comments are in the form of activeness values for students. Students will not feel bored using the Edmodo platform because they will feel like commenting on Facebook social media so that learning to discuss will be more fun when using Edmodo.

Witherspoon concludes that Edmodo can be seen as a Learning Management System (LMS) that can facilitate lecturers to easily create and manage their online classes (Witherspoon, 2011). This site provides a simple way for lecturers and students to connect and collaborate virtually. For example, lecturers can send quizzes and assignments, provide feedback, receive assignments completed by students, provide assessments, conduct polls, store and share learning materials in the form of files or links, or send messages or warnings to all participants. study group. Edmodo is a free social learning platform that allows students to access content uploaded by teachers. This platform allows teachers and students

to communicate with each other via messages, thereby providing opportunities for students to communicate and collaborate in a virtual classroom environment. Balasubramanian, Jaykumar & Fukey, 2014; Ekmekçi, 2016.

In addition to using Edmodo media, the researcher collaborates with Corpus Linguistics. Research using the linguistic corpus has been widely used to get a more detailed global picture of linguistic data (Chen & Flowerdew, 2018). Corpus linguistics has been widely used in foreign language learning research, such as Arabic and English which aims to find out how far and how extensive foreign language learning is in Indonesia. Generally, research that utilizes a linguistic corpus is used to analyze texts with certain themes and uses critical discourse analysis theory (Al Fajri, 2020). The linguistic corpus can help facilitate the processing of large amounts of language data, such as counting the number of words, seeing word usage tendencies, seeing word clusters, and so on. In addition to the field of language teaching, the features of the corpus can be utilized in other linguistic fields, such as sociolinguistics and forensic linguistics, especially in writing. (Charles, 2011).

Based on the results of the correlation test using SPSS 21.0 bivariate Pearson in Table 1, there is a relationship between Edmodo media and student learning outcomes with a value of 0.453, which means that the level of the relationship is moderate/fair. Because for them Edmodo is something new that makes them more enthusiastic about learning.

Table 1. Correlation Test Results with SPSS 21.0				
		Correlations		
		Zero-order	Partial	Partial
1	(Constant)			
	Posttest Eksperimen	.453	.453	.453

While the effect or not in this study tested using SPSS 21.0 simple linear regression test with the following results:

Table 2. Simple Linear Regression Test

		Unstandardized Coefficients	Standardized Coefficients	Sig.
		B	Beta	
		Std. Error		
(Constant)	38.387	12.417	3.091	.005

Posttest	.417	.161	.45	2.59	.01
Eksperimen			3	3	5

From Table 2 it can be seen that the value of significance (Sig.) of 0.015 is smaller than probability of 0.05, so it can be concluded that there is an influence between the Edmodo media with corpus linguistics. From Table 1 is also known that the value of a is 38.387 and the value of b is 0.417, which means that each addition of 1% Edmodo media, English learning outcomes will be increased by 0.417. Then the regression equation amounted to: $Y = 38.387 + 0.417 X$.

In Table 3 it is known that the value of R Square is 0.205, so if you enter on the formula:

$$KP = r^2 \times 100\%$$

$$KP = 0,205 \times 100\%$$

$$KP = 20,5\%$$

Table 3. R Square Test Results with SPSS 21.0

Model	R	Adjusted R Square	Std. Error of the Estimate
1	.453 ^a	.205	7.085

Conclusion

Based on the research that has been done, it can be concluded that there is a relationship between Edmodo media and student learning outcomes with a value of 0.453 on SPSS 21.0 bivariate Pearson, which means the level of the relationship is moderate/fair. Because for them Edmodo is something new that makes them more enthusiastic about learning. During this Covid-19 pandemic, all students carry out learning via distance or online. Distance learning carried out on deaf children is still not optimal because they experience many obstacles including deaf children have a supported device.

Therefore, both parents and teachers should have qualified abilities and skills in assisting deaf children when studying, especially in this distance learning, especially in accessing technology. It is hoped that after this pandemic, training for parents of deaf children will be provided so that parents have good competence and skills in accompanying children when studying. Later parents will not only depend on teachers. In addition, related parties are expected to pay more attention to the education of deaf children by providing the facilities or infrastructure they need in the learning process, especially in distance learning.

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