The Application of Edmodo and Corpus Linguistics in English Grammar Learning for Students with Hearing Loss in Slb 1 Sukabumi City

By

Deden Novan Setiawan Nugraha
English Department, Faculty of Languages, Widyatama University, Indonesia
Email: deden.novan@widyatama.ac.id

Nurul Hermina
Masters in Management Program, Widyatama University, Indonesia
Email: nurul.hermina@widyatama.ac.id

Abstract

The widespread use of today's technology, such as the Internet, can affect the educational process in schools and colleges. One of the important roles that technology has today in terms of education is that it can make communication better, the implementation of information systems more effective, and it can be useful as a learning medium, such as in the applications of Edmodo and Corpus Linguistics. Grammar is one of the most important elements in language learning. Proper grammar is the key to speaking and writing English well for students with hearing loss. This research aims to determine the effectiveness of using Edmodo and Corpus linguistics in English grammar learning for students with hearing loss at SLB 1 Sukabumi City. The research methods used were the experimental method with a one-group pretest-posttest design and the quantitative descriptive method. The data collection technique used an English grammar written test in the pretest and posttest with multiple choices. The data collection was carried out by the n-gain test, with an average score of learning outcomes in the posttest and the pretest. The total sampling method was used to collect the research sample of 50 students with hearing loss at SLB 1 Sukabumi City. The results showed that 93% of the students with hearing loss at SLB 1 Sukabumi City agreed with the effectiveness of the implementation of learning English grammar through Edmodo and Corpus Linguistics. From the pretest and posttest and found that the average pretest score was 18 and the average posttest score was 65, while the normalized n-gain value was 0.650 and was included in the medium category. So, it can be seen that there is a significant increase between learning outcomes before the pretest and after the posttest.

Keywords: Edmodo, Corpus Linguistics, English Grammar, Students with hearing loss.

Introduction

Today, the world has changed and developed. Change and development are also taking place in the world of education, including education and English teaching. Learning English evolves in tandem with the passing of time. When we learn about the history and the journey of learning English, we will encounter various kinds of English learning methods, for example, the audio-linguistic method, the direct method, the grammar translation method, the suggestopedia, the communicative approach, etc., with each method placing a position as a method of learning English used in various parts of the world, including Indonesia. These methods are also still used by many language teachers of English because, indeed, one method cannot be said to be the best because of the various complexities of one factor and another. Learners of English will notice changes that can be attributed to a shift from one theory of

learning to another. We can see this change in teaching methods, learning media, learning approaches, etc.

According to Brunner (1990) in behaviorism theory, language learning is very dependent on the role of the teacher, namely as a provider of input (knowledge) to students (learners). Students are taught in such a way that the results will be behaviors that are appropriate and expected by teachers. However, at the moment, English learning develops not only from teacher input but also from the context around them, which influences how they learn, which is especially true for students who are more adaptable to changes in their environment, including technological ones. In today's digital era, technology has become very important in learning English because with technology, there are many benefits that can be obtained by the students, including: 1) convenience in the learning process; 2) making it easier for students to access information; 3) reducing the burden of learning materials (going paperless); 4) improving literacy in the field of technology; 5) becoming independent learners; 6) etc.

The demand to take advantage of e-learning when this can no longer be avoided is a consequence of the rapid development of technology in the world (Tseng & Walsh Jr., 2016). E-learning, as a type of educational paradigm shift in viewing and delivering learning materials, can help to reduce the occurrence of trends and the knowledge gap. Almost all learning systems in Indonesia have been conducted online or through e-learning over the last two years (Rusdiana & Nugroho, 2020). This condition is also affected by the emergency situation of the COVID-19 pandemic, which requires that the educational process be carried out online (Trisnadewi & Muliani, 2020).

The concept of e-learning is an optimizing learning approach that uses a technological device as a learning medium (Lwoga, 2012). Learning online has the same characteristics as digital-based learning (Ahmed, et al.,2017). The teacher's role in the concept of e-learning is no longer required to interact and communicate directly (Aparicio & Bacao, 2013). In the classroom during predetermined intra-hours, but e-learning allows for more flexibility in scheduling face-to-face time within the course of learning. Teaching can occur at the same time (synchronously) or at different times (asynchronously). E-learning is a concept for a new era of education in the 21st century (Bezovski & Poorani, 2016). Sheffield, et al., (2018) stated that e-learning is one of the newest kinds of education systems that has attracted the attention of educators around the world.

Currently, there are many e-learning lessons also applied in the learning process at college (Chea, Tan, & Huan, 2019). This matter is an embodiment of the lecturer's adaptive attitude toward technological developments that are increasingly sophisticated and growing. One of them uses Edmodo and Corpus Linguistics to teach English grammar. According to Nugraha (2022:2), Edmodo is an attractive application for teachers and students with social elements resembling Facebook. Corpus linguistics is the study of the use of language in reality as observed by collecting data from written and spoken languages, analyzing it using a computer, and describing it based on specific points of view and goals (Nugraha, et al.,2020:108).

Since the COVID-19 pandemic occurred throughout the world, all teachers are required to carry out learning activities from home. E-learning is now required at all levels of education, from elementary to tertiary. Universities generally have an e-learning system, but activities are very limited. The COVID-19 emergency response made lecturers and students obliged to study and carry out online learning (Arota, et al.,2020). With the application of e-learning, we can

still carry out learning even though we are still at home, and the time used is not limited so that students do not feel bored learning English. As we know, English is a subject that is considered quite difficult by most students.

According to Harmer (2004), grammar is an important component in learning English, both to support speaking and writing skills. Grammar is a structuring rule of a language, such as how to combine words, arrange words, and change words based on their relationship with other words into a unit sentence that is clear in meaning and purpose. Grammar is a way of describing words that can be changed in shape and can be combined with other words so that they become a meaningful sentence in language. Then Bőrjars (2010) stated that with the knowledge of grammar that we have when we write a good essay for speeches or reports, we can better evaluate the use of words in composing good and correct sentences so that readers and listeners can understand them. Because the better the word arrangement, the easier it is for listeners or readers to understand what we mean, we can be more effective and efficient.

Deaf students are students who have hearing loss, which limits their ability to communicate and obtain linguistic information through the sense of hearing. Therefore, deep communication with deaf students generally uses searching language, reading lip movements, or even total communication. Students with hearing loss are commonly referred to as "deaf" or "hard of hearing." The difference between the two areas lies in the degree of hearing loss experienced. In Indonesia, students who are deaf are one category of students with special needs. Students who have difficulty following the learning process due to physical, emotional, mental, social, and/or other abnormalities have the potential for intelligence and special talents. The efforts to provide educational services to students with special needs in Indonesia focus on developing their various potentials through continuous and systematic teacher observation during the identification and assessment processes. This process is what distinguishes general-purpose teachers from teachers for students with special needs. Through identification and assessment, it is expected that teachers can provide good educational services according to the conditions and characteristics of students with special needs (Kemendikbud,2017: 8).

The seriousness of the Indonesian government in providing education services for students with special needs is reflected in Law Number 20 of 2003 concerning the System of National Education, where Article 5 (2) mandates that "Citizens who have physical, emotional, mental, intellectual, and/or social disabilities have the right to receive special education." Then, in Article 10 paragraph A of Law Number 8 of 2016, concerning persons with disabilities, it was confirmed: "Persons with disabilities have the right to quality education in educational units of all types, paths, and levels in an inclusive manner."

The number of students with special needs in Indonesia is quite large. Data compiled by the Ministry of Education and Culture's Center for Data and Statistics in 2015/2016 shows that there are around 114,085 students with special needs (for all students) and different types of disabilities at all levels of education spread across 34 provinces in Indonesia. The data also shows that deaf students have become the second largest population with 23,141 students. Meanwhile, the five cities in Indonesia with the highest number of deaf students are West Java (3,982 students), East Java (3,647 students), Central Java (2,955 students), North Sumatra (1,062 students), and South Sulawesi (1,002 students).

Based on the data that there are so many deaf students in Indonesia, it is necessary to create a learning environment that can access students' deafness in order to develop their potential based on the characteristics they have and provide opportunities for their learning success. The quality of education and good learning will certainly contribute to the success of

deaf students. But in fact, the implementation of learning for deaf students is still far from expectations. Because of this, it is thought that the model for learning English and its auxiliary learning resources, particularly for deaf students, are crucial for English learning in SLB 1 Sukabumi City.

The following issues can be identified based on the background described above: How is the effectiveness of using Edmodo and Corpus Linguistics in English Grammar learning for students with hearing loss at SLB 1 Sukabumi City?

Literature Review

Online Teaching English Grammar

Grammar teaching is often a serious issue discussed in learning English, both for learners of English as a second language (ESL) as well as in the case of English as a foreign language (EFL). The investigation of the need for effective grammar to be taught to strategies and learning models will continue until it becomes a trend to integrate grammar teaching with multi-media and artificial intelligence applications in order to adapt to technological developments in modern education (Ling, 2015). Based on research by Turkmen and Aydin (2016), authentic online and text applications enhance the performance of grammar teaching in the EFL learning process. Teaching grammar online is not just about moving face-to-face meetings into the network but more about the utilization of online learning resources as authentic materials to stimulate students to achieve their abilities in communication.

In line with Turkmen and Aydin (2016), research in Alhabash, et al., (2016) on the Intelligent Tutoring System (ITS) for teaching grammar and English tenses, designed to facilitate students' coping with difficulties they face easily and smoothly, shows the satisfaction of students with the system's artificial intelligence. To achieve the effectiveness and success of the implementation of online teaching, Sun and Chen (2016) suggest the existence of well-prepared material content, motivation for the interaction between the teacher and students, teachers who are ready and well supported in the creation of an online learning community, and rapid technological advances. All of these must be well integrated in order to achieve learning goals with an effective online learning system. This is the challenge for teachers, particularly English teachers, during the pandemic: all learning must be done online, despite the fact that switching to online learning appears immature and hurried. Therefore, there is a need for extra involvement from teachers to help students understand and good cooperation from the institutions and students themselves. By utilizing the information technology already available, there are several alternative applications that can be used in online English grammar learning during the pandemic to stimulate the spirits of the students with hearing loss at SLB 1 Sukabumi City by using Edmodo and Corpus Linguistics. According to Buchholz, et al., (2020) the condition of the COVID-19 pandemic requires many choices of learning and teaching methods that can be applied by teachers in providing lecture materials at school.

Edmodo

Edmodo is open-source software that is used as an internet-based lesson using a website. However, in the learning interaction process, not everyone can enter the classroom in the Edmodo application study room because they have to use the learning code created by the teacher (Khodary, 2017). Each student has a personal access code assigned by the teacher, and this code allows him to join Edmodo. Hence, no foreigners can join. Edmodo is an educational technology that is often used by teachers and students in learning activities. This Edmodo application can assist teachers and students in preparing various information on teaching

materials, discussion rooms, and providing students with practice questions (Saleh, 2018).

Edmodo is an application that is a type of social network that has similarities to the Facebook social network (Haefner & Hanor, 2012). However, access to learning through the Edmodo application has a fairly good level of security and privacy for use in learning activities (Hankins, 2015). The security of using the Edmodo application in learning is one of them, as it uses user codes to engage in discussion groups or learning activities that are carried out. This Edmodo application has its own advantages for its users, both teachers and students, who will easily take advantage of the Edmodo application through a personal mobile device that is accessed through the use of the internet. The Edmodo application is identical to the internet-based social media network that can be used in education because it can be used as a user-friendly tool that has no limits on where to communicate and interact with an individual or social media group (Gómez, Ruiz, & Orcos, 2015). Edmodo has a study room facility that provides learning encouragement for students to be actively involved in learning activities. This learning drive will ultimately be able to teach students to always be responsible, disciplined, and active in completing all tasks collaboratively given by the lecturer (Curran-Sejkora, 2013).

Corpus Linguistics

One of the most recent developments in linguistics is the existence of data sources. electronic use of natural language in large quantities, known as the corpus. Linguistic studies based on the use of corpus data are then called corpus linguistics (McEnery & Hardie, 2012). The size of a language corpus can reach hundreds of millions or even trillions of words. This allows linguistic studies in all lines by utilizing quantitative information obtained through the processing of large corpora.

Corpus linguistics is a methodology that can help describe language use in a real context and test a hypothesis about the use of the language. According to Crystal (2008: 117), corpus linguistics is "a means of verifying hypotheses about language" and is more of a "methodology" than "an aspect of language that requires explanation or description" (Stubbs in Baker, et al., 2006: 50). As a result, this article takes a corpus-based approach. Furthermore, the method chosen to describe the relationship between lexical frequency and socio-cultural phenomena If a corpus can represent a variation of the language used in a specific community's text, then corpus-based analysis is thought to be ideal for summarizing it (Wolf, 2006: 43).

Based on its form and purpose, Hunston (2002: 2) defines a "corpus" as a collection of examples of natural language, which consists of several sentences from a series of written texts or recordings that have been collected for linguistic studies. The texts in the form of spoken or written language are then compiled systematically. The corpus is said to be "natural" because the texts collected are texts that are produced and used fairly and not artificially. These texts include textbooks, journals, textbooks, novels, newspapers, magazines, broadcast recordings of talks, interview results, and many more.

"Frequency" in corpus linguistics refers to the number of occurrences of a word in a corpus or text (McEnery and Hardie, 2012). Not only is it used to count occurrences of single words, but frequency also allows for calculating the frequency of grammatical, semantic, or other categories. Frequency can also guide researchers toward broader findings. The use of corpus data in research on the frequency of language use is also theoretically more efficient because its own corpus data presents the frequency of occurrence of linguistic features (Lindquist, 2009: 9). The corpus is a representative sample of real forms of language use that are compiled to facilitate the interpretation process objectively based on the frequency of use

of linguistic features.

Concordance is a list or sequence of examples of words, parts of words, or combinations of words that are in context and taken from the corpus of text (Baker, et al., 2013). The main word that is the goal of searching in the corpus is called a "keyword." There are many ways to display these keywords. One of the most widely used methods in the linguistic corpus is the use of keywords in context, also known as "keywords in context" (KWIC). Concordance is an important aspect of corpus linguistics that allows qualitative analysis to be carried out on corpus data. This allows the researcher to explore individual cases in detail. Concordance analysis is usually necessary before we can make any claims about language variation or change by frequency.

Methods

This research is descriptive quantitative research with data collection techniques using a questionnaire. Descriptive research is research that describes things that are currently valid, while according to the type of data and the way of processing the numbers and analyzing them using statistical tests, it is classified as quantitative research. The scores obtained were then analyzed using descriptive statistical techniques. The variable in this research is the student's response to English grammar learning through Edmodo and Corpus Linguistics.

The student response intended in this research is whether the students with hearing loss at SLB 1 Sukabumi City agree or disagree with implementing English grammar learning through Edmodo and Corpus Linguistics. This study's population consists of students with hearing loss at SLB 1 Sukabumi City. The sample for this research was taken by the total sampling method. The number of samples was equal to the total population of 50 students with hearing loss at SLB 1 Sukabumi City. The information was gathered using a closed questionnaire instrument with the option of agreeing or disagreeing. The data processing in this research was carried out by processing questionnaire data using quantitative descriptive statistical techniques, which were then interpreted. The items of the statement instruments in the questionnaire are as follows:

The statement of the student with hearing loss at SLB 1 Sukabumi City led to responses in English grammar learned through Edmodo and Corpus Linguistics.
1. I like to learn English grammar using the online learning systems Edmodo and Corpus Linguistics rather than face-to-face learning with teachers.
2. Edmodo and Corpus Linguistics are interesting mediums for learning English grammar.
3. Edmodo and Corpus Linguistics make me responsible and disciplined in collecting my duty.
4. Edmodo and Corpus Linguistics gave me a new experience in learning English grammar.
5. I can save time doing and collecting assignments with Edmodo and Corpus Linguistics.
6. Edmodo and Corpus Linguistics make it easier for me to access learning materials.
7. I can improve my understanding of English grammar through video lessons uploaded via Edmodo.
8. I prefer to collect monologue and dialogue assignments in English grammar by uploading videos on Edmodo instead of appearing directly in class and talking face-to-face with teachers.

In addition, this research also used an experimental research method in the form of a one-group pretest-posttest design experiment. Sampling in this research used cluster random

sampling from SLB Negeri 1 Sukabumi City, and the research instrument used was an English grammar written test in the form of a pretest and posttest with multiple choices. This aims to examine the learning outcomes of deaf students in SLB-1 Sukabumi City in the cognitive domain. The data analysis technique uses the N-gain test as follows:

N-gain = Post Test Score – Pre-Test Score
Maximum Score - Pre-Test Score

After doing the calculations, the results obtained are then interpreted based on the criteria listed in Table 1 below:

Table 1 *N-Gain Grouping Criteria*

Gain Index	Criteria
g>0,70	High
0,30 <g<0,70	Medium
g<0,30	Low

To determine the strength of the relationship between variables, hypothesis testing was performed using data analysis techniques such as paired t tests with the formula:

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D^2)}{N}}{N(N-1)}}}$$

Description:

t = t prices for correlated samples

$\bar{D}$ *(difference),* the difference between the initial test score and the final test score of each individual

D = The average of the difference Score

D^2 = The square of D

N = The number of research subjects

Results and Discussion

The information gathered from questionnaires given to 50 hearing-impaired students at SLB 1 Sukabumi is then examined by calculating the quantity and percentage. The following table contains the analysis' findings.

Table 2

Statement	Response	
	Agree	Disagree
1	95,45	4,55
2	97,73	2,27
3	93,18	6,82
4	95,45	4,55
5	95,45	4,55
6	86,36	13,64
7	95,45	4,55
8	95,45	4,55
Average	93%	7%

Based on the table, information is gathered regarding student responses to 8 statement instrument items that demonstrate how students feel about learning English grammar using Corpus Linguistics and Edmodo. First, 95.45% of students feel that online learning platforms like Edmodo and Corpus Linguistics are preferable to face-to-face instruction for learning English, while 4.55% of students disagree. Second, only 2.27% of students disagreed with the 97.7% who said Edmodo and Corpus Linguistics were necessary for learning English grammar.

Third, just 6.82% of students disagreed with the statement that Edmodo and Corpus Linguistics helped students become disciplined and responsible in their study of English grammar, while 93.18% of students agreed. Fourth, 95.4 percent of learners concur that Edmodo and Corpus Linguistics offer fresh opportunities for studying English grammar, and while just 4.55% of students think otherwise. Fifth, only 4.55% of students disagreed with the 95.45% who said they could save time by submitting their assignments via Edmodo and Corpus Linguistics. Sixth, while 13.64% of students disagreed, 86.36% of students thought Edmodo and Corpus Linguistics made it simpler for students to acquire educational materials. Seventh, 95,45% of students thought that watching instructional videos posted to Edmodo will help them grasp English grammar better, while 4,55% disagreed. In the eighth grade, 95,45% of the students opted to submit their monologue assignments as videos on Edmodo rather than showing up in class for face-to-face meetings with the teachers.

To see the effect of increasing student learning outcomes with the application of Edmodo and Corpus Linguistics, it is necessary to process and analyze pretest and posttest data using the normalized n-gain test so that the average score of the student learning outcomes test is shown in table 3 below.

Based on table 4, it can be seen that there was an increase in student learning outcomes before and after being given e-learning using Edmodo and Corpus Linguistics.

This is evidenced by the fact that the average value of learning outcomes obtained in the posttest is 65, while the average value on the pretest is 18. This means that the posttest value is higher than the pretest value, so there is an increase in learning outcomes.

While the normalized value of n-gain is 0.650 and is included in the medium category and it is known that the results of the pretest and posttest are $L_{count} < L_{table}$ at a significant level $= 0.05$. This shows that the data from the pretest and posttest are normally distributed. To test this hypothesis using the paired t-test formula. The results of these calculations can be seen in Table 5.

Based on Table 5, it can be seen that the results of testing the hypothesis using the paired t test obtained a tcount of 31.24, while the value of t_{table} at $\alpha = 0.05$; df $= 31$ (32-1) obtained a value of 2.016. Thus, $t_{count} > tt_{able}$ or $t_{count} = 31.24$ is greater than $t_{table} = 2.0416$; thus, Ho: rejected and Hi: accepted. It can be concluded that there is an influence on student learning outcomes before implementing e-learning assisted by Edmodo learning media and Corpus Linguistics on the learning outcomes of students with hearing loss in English grammar.

Table 3. Data on the results of students with hearing loss scores in the pretest and posttest

Respondent	Score	
	Pretest	*Posttest*
Respondent 1	19.22	63.21
Respondent 2	13.04	53.7
Respondent 3	4.71	48.32
Respondent 4	14.2	76.18
Respondent 5	8.51	80.90
Respondent 6	14.71	70.66
Respondent 7	13.80	59.25
Respondent 8	13.05	79.3
Respondent 9	13.70	67.21
Respondent 10	8.51	77.3
Respondent 11	5.70	64.85
Respondent 12	5.23	50.22

Respondent 13	6.25	74.19
Respondent 14	4.77	75.51
Respondent 15	22.27	78.20
Respondent 16	13.30	71.21
Respondent 17	7.21	64.31
Respondent 18	13.01	74.51
Respondent 19	7.28	72.31
Respondent 20	8.32	74.71
Respondent 21	8.33	47.52
Respondent 22	14.21	78.21
Respondent 23	30.48	64.84
Respondent 24	9.42	71.81
Respondent 25	8.81	65.61
Respondent 26	14.6	78.2
Respondent 27	6.54	71.82
Respondent 28	18.02	48.21
Respondent 29	8.50	67.76
Respondent 30	7.21	68.3
Respondent 31	14.1	69.24
Respondent 32	3.6	63.31

Table 4. Test Scores for Students with Hearing Loss Recapitulation of Study Results

Test	Ideal Score	Max Score	Min Score	Average	$<g>$ Score	$<g>$ Criteria
Pretest	100	30.48	3.6	18	0.650	Medium
Posttest	100	80.90	47.52	65		

Table. 5 *Results of Paired t-test Pretest and Posttest*

Variables	Sample	tcount	ttable	Conclusion
Pretest-Posttest	50	31.24	2.0416	H_0:Rejected H_1: Accepted

Based on the data obtained, the researcher analyzed the data from the pretest and posttest and found that the average pretest score was 18 and the average posttest score was 65, while the normalized n-gain value was 0.650 and was included in the medium category. So, it can be seen that there is a significant increase between learning outcomes before the pretest and after the posttest.

After the normality test is carried out, it is continued with hypothesis testing. Based on the results of the pretest and posttest hypothesis testing, it is known that the application of e-learning at Edmodo and Corpus Linguistics has an effect on student learning outcomes in learning English Grammar. This is evidenced by the results of hypothesis testing showing that $t_{count} > t_{table}$ or $t_{count} = 31.24$ is greater than $t_{table} = 2.0416$ and that Ho: rejected and Hi: accepted.

Edmodo provides numerous options for teachers and students to carry out learning. Independently, students can do individual learning to develop their awareness of doing independent learning. There are several roles that teachers and students can perform using the Edmodo application. Teachers can use the Edmodo application to store files both related to lecture material and lecture assignment materials that can be accessed directly by students. The way Edmodo works in learning helps to regulate the time students spend working on and collecting assignments given by the teacher. Edmodo can also provide space for students to discuss their work through presentation activities designed with PowerPoint presentation materials. Teachers and students can chat while debating the material delivered by their

classmates using the Edmodo application.

Learning activities in the Edmodo application will realize several online learning activities such as online discussion activities, online assignments, online multiple-choice quizzes, online essay quizzes, and online file and information sharing. Through the message board, the Edmodo application can provide opportunities for students to have online discussions with educators and other students. Students are given the opportunity to learn to be honest in conducting self-evaluations posted through the Edmodo application. The features in the Edmodo application have space for students to find sources of information literacy prepared by educators in accordance with the learning materials that will be studied by students.

Edmodo trains students to study independently and complete work projects while completing assignments given by educators. The teacher provides opportunities for each student to discuss lecture assignments given by the teacher in response to posting the results of student activity projects. In the course of their activities, students will respond to posts made by their friends and then provide feedback on what their friends have done. The form of feedback given is in the form of different ideas and arguments as positive reflections shown by other students in providing feedback on the results of their friends' work. Teachers constantly provide their students the chance to engage in debate, particularly when using the Edmodo program as a shared study space. The students gave a positive response when they saw the Edmodo application that could be used as a study room to improve their ability to study independently. Meanwhile, the corpus has the benefit of being simple to access and study. On the basis of corpus data, quantitative generalizations may also be drawn. The corpus can be utilized by teachers or students as a medium for obtaining evidence and validating intuition about knowledge from a language. It can be used as a source that offers descriptive data about how language is used in the classroom.

Conclusions

Up to 93% of hearing-impaired students concur that learning English grammar using Edmodo and Corpus Linguistics is the best method. The study's conclusions were that SLB 1 Sukabumi City children with hearing loss responded favorably or positively to studying English grammar using Edmodo and Corpus Linguistic. This demonstrates that Edmodo and Corpus Linguistics are the most popular media among students in SLB1 Sukabumi City. In addition, some pupils with hearing difficulties experienced issues with the erratic internet network.

Based on the analysis of the research data, it can be concluded that the application of e-learning in learning English grammar using Edmodo and Corpus Linguistics has an effect on the learning outcomes of the students with hearing loss at SLB 1 Sukabumi City. This is indicated by the existence of significant differences in student learning outcomes before and after implementation. The average value of learning outcomes obtained in the posttest is 65, while the average value in the pretest is 18, meaning that the posttest value is higher than the pretest value and that there is an increase in learning outcomes. Another finding from testing the hypothesis is that $t_{count} > t_{table}$ or $t_{count} = 31.24$ is greater than $t_{table} = 2.0416$, indicating that Ho is rejected and hi is accepted.

Acknowledgment

We would like to thank everyone who helped with this research and for their

References

Ahmed, M. U., Sangi, N. A., & Mahmood, A. (2017). A Learner Model for Adaptable e-Learning. *Interaction,* 8(6). DOI: 10.14569/IJACSA.2017.080618.

Alhabbash, Mohammed & Mahdi, Ali & Abu-Naser, Samy. (2016). An Intelligent Tutoring System for Teaching Grammar English Tenses. *European Academic Research*. 4 (9):1-15.

Aparicio, M., & Bacao, F. (2013). E-learning concept trends. Proceedings of the 2013 *International Conference on Information Systems and Design of Communication*, 81–86. DOI:10.1145/2503859.2503872.

Arota, A & Salim, Mursalin & Odja, Abdul. (2020). The effectiveness of e-learning based on SETS to improve students' critical thinking skills in optical instrument material. *Journal of Physics: Conference Series.* 1521. 022061. DOI:10.1088/1742-6596/1521/2/022061.

Baker, P., Hardie, A., & McEnery, T. (2006). *A glossary of corpus linguistics.* Edinburgh: Edinburgh University Press.

Baker, P., Gabrielatos, C., & McEnery,T. (2013). Sketching muslims: a corpus driven analysis of representations around the word 'muslim' In the British Press 1998-2009. *Applied Linguistics,* 34(3), 255-278. DOI: 10.1093/applin/ams.

Bezovski, Z., & Poorani, S. (2016). The evolution of e-learning and new trends. *Information and Knowledge Management,* 6(3), 50– 57.

Börjars, K. and Burridge, K. (2010). *Introducing English Grammar*. 2nd Edition, Hodder Education, London.

Brunner, J. (1990). *Acts of meaning*. Cambridge: Harvard University Press.

Buchholz, B. A., DeHart, J., & Moorman, G. (2020). Digital Citizenship During a Global Pandemic: Moving Beyond Digital Literacy. *Journal of Adolescent and Adult Literacy*, 64(1), 11–17. DOI:10.1002/jaal.1076.

Chea, C. C., Tan, J., & Huan, J. (2019). Higher education 4.0: the possibilities and challenges. *Journal of Social Sciences and Humanities,* 5(2), 81–85.

Crystal, D. (2008). *A dictionary of linguistics and phonetics (6th ed.).* Malden: Blackwell Publishing.

Curran-Sejkora, E. (2013). *Student interactions in Edmodo versus Facebook*. Arizona State University.

Gómez, A., Ruiz, Á. A. M., & Orcos, L. (2015). UX of social network Edmodo in undergraduate engineering students. *IJIMAI*, *3*(4), 31–36. DOI: 10.9781/ijimai.2015.346.

Haefner, J. M., & Hanor, J. (2012). iPads apps for utility and learning. *Proceedings of the 28 Th Annual Conference on Distance Teaching and Learning*, 1–5.

Hankins, S. N. (2015). *The effects of Edmodo on student achievement in middle school*. St. Thomas University Miami Gardens, Florida.

Harmer, Jeremy. (2004). *How to Teach.* England: Pearson Education.

Hunston, S. (2002). *Corpora and Applied Linguistics.* Cambridge: Cambridge University Press.

Kemendikbud. (2017). "Penguatan Pendidikan Karakter Jadi Pintu Masuk Pembenahan

Pendidikan Nasional". (https://www.kemdikbud.go.id/main.

Khodary, M. M. (2017). Edmodo Use to Develop Saudi EFL Students' Self-Directed Learning. *English Language Teaching,* 10(2), 123–135. DOI: 10.5539/elt.v10n2p123.

Ling, Z. (2015). Explicit grammar and implicit grammar teaching for English major students in university. *Sino-US English Teaching,* 12(8), 556-560.
DOI: 10.17265/1539-8072/2015.08.002.

Lindquist, H. (2009). *Corpus linguistics and the description of English.* Edinburgh: Edinburgh University Press.

Lwoga, Edda. (2012). Making learning and Web 2.0 technologies work for higher learning institutions in Africa. *Campus-Wide Information Systems.* 29. 90-107.
DOI: 10.1108/10650741211212359.

McEnery, T., & Hardie, A. (2012). *Corpus linguistics: Method, theory and practice.* Cambridge University Press.

Nugraha, D. N. S., & Hermina, N. (2022). The effect of edmodo based english learning to support students with hearing loss during the COVID-19 pandemic. *International Journal of Health Sciences*, 6(S7), 2275–2284. DOI:10.53730/ijhs.v6nS7.11852.

Nugraha, D.N.S, et.al. (2020). The translation of lexical modal (Insist) in English modality and its equivalents in Indonesian language: Syntactic and semantic studies. *International Journal of Psychosocial Rehabilitation.* Volume 24, Issue 2. 2020. 2861-2864.
DOI:10.37200/IJPR/V24I2/PR20058.

Rusdiana, E., & Nugroho, A. (2020). Respon Mahasiswa Pada Pembelajaran Daring Bagi Mahasiswa Mata Kuliah Pengantar Hukum Indonesia UNESA. *Integralistik,* 31(1),1–12. DOI:10.26418/jvip.v12i2.39085.

Saleh Al-Essa, N. (2018). The Impact of Using Edmodo as a Blended Learning Medium on Promoting Saudi EFL Female Secondary School Students' English Grammar. *Arab World English Journal (November 2018).* DOI:10.2139/ssrn.3294814.

Sheffield, R., Blackley, S., & Moro, P. (2018). A professional learning model supporting teachers to integrate digital technologies. *Issues in Educational Research,* 28(2), 487–510.

Sun, A. and Chen, X. (2016) Online Education and Its Effective Practice: A Research Review. Journal of Information Technology Education: Research, 15, 157-190.
DOI:10.28945/3502.

Trisnadewi, K., & Muliani, N. M. (2020). Pembelajaran Daring di Masa Pandemi. COVID-19: *Perspektif Pendidikan,* 35.

Tseng, H. W., & Walsh Jr, E. J. (2016). Blended vs. traditional course delivery: Comparing students' motivation, learning outcomes, and preferences. *Quarterly Review of Distance Education,* 17(1).

Turkmen, Y. & Aydin, S. (2016). The effects of using online concordancers on teaching grammar. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi Nisan*, 20(1), 145-152.

Wolf, H.G. (2006). *Religion and traditional belief in West African English: A linguistic analysis. In Omoniyi T. & Fishman J.A. (Eds.) Explorations in the sociology of language and religion (42-59).* Amsterdam: John Benjamin Publishing Co.