



INNOVATION OF INDONESIAN LEARNING MODELS DURING THE COVID-19 PANDEMIC: A SCIENTIFIC APPROACH WITH MULTIMEDIA

INOVASI MODEL PEMBELAJARAN BAHASA INDONESIA SAAT PANDEMI COVID-19: PENDEKATAN SAINTIFIK DENGAN MULTIMEDIA

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Abstract

The COVID-19 pandemic is the biggest problem in education worldwide. In Indonesia, a policy is put in place to implement distance learning called "School From Home". This is an e-learning assisted distance learning application. The learning model needs to be innovated so that learning can be carried out effectively. The purpose of this research is to develop an Indonesian language learning model by innovating a scientific approach with multimedia to be applied to distance learning. This model is used for high school students. This type of research is Research & Development (R&D) with a 4-D model (four D model) which consists of four stages, namely, define, design, develop, and disseminate. The product developed in this study is an Indonesian language learning model by innovating a scientific approach with multimedia. The media used to support this model include; digital teaching materials, Social Network Sited (whatsapp), Social Learning Network (Edmodo), and Zoom meetings. The product was tested in high schools (SMA N 3 Padang and SMA N 7 Padang) in January 2021. The results of this study indicate that this learning model is valid with a self-validation value of 93.35% and expert validation of 94.81. Furthermore, the learning model was tested to assess the practicality of the learning model with the value of teacher practicality of 93.13% and student validity of 83.73% in the very practical category and the value of student learning activities obtained by 91.43% in the very active category.

Keywords: COVID-19, Distance learning; Learning model, Multimedia, Saintific approach

Abstrak

Pandemi COVID-19 merupakan masalah terbesar dalam pendidikan di seluruh dunia. Di Indonesia, kebijakan diberlakukan untuk menerapkan pembelajaran jarak jauh yang disebut "Sekolah Dari Rumah". Ini adalah aplikasi pembelajaran jarak jauh berbantuan e-learning. Model pembelajaran perlu dilakukan inovasi agar pembelajaran dapat terlaksana dengan efektif. Tujuan penelitian ini adalah untuk mengembangkan model pembelajaran Bahasa Indonesia dengan menginovasikan pendekatan saintifik dengan multimedia untuk diterapkan pada pembelajaran jarak jauh. Model ini digunakan untuk siswa tingkat Sekolah Menengah Atas. Jenis penelitian ini adalah Research & Development (R&D) dengan model 4-D (four D model) yang terdiri dari empat tahap yaitu, define, design, develop, dan disseminate.



Produk yang dikembangkan dalam penelitian ini adalah model pembelajaran Bahasa Indonesia dengan menginovasikan pendekatan saintifik dengan multimedia. Media yang digunakan untuk mendukung model ini antara lain; materi ajar digital, Social Network Sited (whatsapp), Social Learning Network (Edmodo), dan Zoom meeting. Produk tersebut diujicoba di Sekolah Menengah Atas (SMA N 3 Padang dan SMA N 7 Padang) pada bulan Januari 2021. Hasil penelitian ini menunjukkan bahwa model pembelajaran ini valid dengan nilai validasi sendiri yaitu 93,35% dan validasi ahli sebesar 94,81. Selanjutnya model pembelajaran diujicoba untuk menilai praktikalitas model pembelajaran dengan nilai praktikalitas guru 93,13% dan validitas siswa sebesar 83,73% dengan kategori sangat praktis dan nilai aktivitas belajar siswa diperoleh sebesar 91,43% dengan kategori sangat aktif.

Kata kunci: Model pembelajaran, Multimedia, COVID-19, Pembelajaran jarak jauh, Pendekatan saintifik

1. INTRODUCTION

The COVID-19 outbreak that occurred in 2020 globally caused the biggest problems in the education sector around the world (Alhat, 2020; Bender, 2020; Helmsing & Social, 2020; Kirigia & Muthuri, 2020; Koçoğlu & Tekdal, 202; Tian et al., 2020; Toquero, 2020; Zhou, Chen, & Chen, 2020). In Indonesia, a policy is enforced to implement distance learning which is termed "School From Home". This is the application of distance learning assisted by electronic devices (e-learning) (Ichsan et al., 2020). This is done to stop the danger of COVID-19 which can spread rapidly, because schools are breeding grounds and dangerous places for the spread of the virus (Sintema, 2020; Mulenga & Marbán, 2020).

The term distance learning reflects the fact that all or most of the teaching is carried out by someone who is moved within the time and space of the learner (Gross, Silqueira, Gomes, Silva, & Saleme, 2017; Inegbedion, 2017). It is open, accessible, flexible, supportive, and affordable based on the assumption that distance learners are responsible people and can manage their own learning (Ngubane-mokiwa, 2017). Distance learners can study and study whenever and wherever they want; however, they are responsible for planning, managing, and assessing their learning process (Moore & Kearsley, 2012; Kuo, Walker, Schroder, & Belland, 2014). Effective time management is an important consideration for distance learners (Broadbent & Poon, 2015) and the need for a strong internal control locus to maintain student-centered learning (Hamdan, 2014; Marginson, 2016).

During the pandemic, nearly all schools have changed and hands-on teaching is now practiced virtually, with little or no preparation (Haverback, 2020). The current COVID-19 pandemic has presented a challenge to educators at all school levels to turn face-to-face teaching into online learning (Mcquinter, 2020). The colloquial language of the transition from educator preparation to practice shifts from general truth to dynamic considerations and the transition to emergency distance teaching and learning (Eisenbach, Greathouse, & Acquaviva, 2020). Educational institutions during COVID-19 faced the unique challenge of keeping the learning process smooth while ensuring that it continues to carry out as expected (Alqahtani, 2020). Intermediate teachers may be confident in how to teach their content in class; however, these beliefs may differ when teaching virtually (Haverback, 2020).

Digital technology destroys or reduces the distance that separates people and communities and is the main delivery mechanism for distance learning (Traxler, 2018). Students must be equipped to live in a "multi-faceted, multitasking, technology-driven world", we must



also ensure that all students have equal access to this new world of technology "(Tucker, 2014; Reyneke & Shuttleworth, 2018) Technology has lifted the lid of generations and dissemination of 'knowledge' about the conception, dissemination and control of 'knowledge' or 'what can be known'. Modern electronic technologies such as internet; Wifi; video and video links, tablets; smartphones and so on change the position of teachers as centers of knowledge (Ngubane-mokiwa, 2017). This enhances distance education, implements an open learning policy, makes learning activities more flexible and allows them to be distributed among many learning venues (Koneru, 2017). Interactive technology shows what should be at the core of any educational process, and educational materials have been replaced by digital multimedia materials (Moreira, Reis-monteiro, & Machado, 2017).

Multimedia is often used to accommodate students with different needs when learning online (Chen, 2015). The use of multimedia in teaching has been shown to increase the effect of teaching (Almara'beh, Amer, & Sulieman, 2016; Gunawardhana & Palaniappan, 2019). This can motivate students' thoughts, feelings, attention, and abilities (Winarni, Hambali, & Purwandari, 2020). When content is presented via multimedia, multiple channels are activated simultaneously so that the relationship between the various forms of knowledge is established and tightened, and the efficiency of learning is significantly improved (Zhang, Zou, Xie, Au, & Wang, 2020). Based on the principles of multimedia learning (cognitive theory), this learning can encourage students to build a coherent mental representation of the material presented, which in turn builds new knowledge (Maziriri, Gapa, & Chuchu, 2020).

Multimedia is defined as a combination of various types of digital media such as text, sound, images, animation, presentation, and video, the possibility of navigating different documents into an integrated multi-sensory interactive application or presentation to convey messages or information to the audience (Chen & Xia, 2012; Islam, 2020; Tekin, Ilgaz, Adanır, Yıldırım, & Gülbahar, 2020; Vera, 2020). Multimedia efficiency achieved in the education domain can help students remember and transfer their knowledge (Aloraini, 2012), students' generic skills, develop oral production skills (Muslem & Abbas, 2018), help students extract abstract information, make connections between verbal and visual representations of content and identify and solve problems more easily (Sausan, Saputro, & Indriyanti, 2020). Multimedia produces meaningful learning, and meaningful learning can only be said to be achieved if learners can apply the knowledge of what they have learned in new situations (Akinbadewa, 2020).

Apart from multimedia technology, the tools most widely used in the new education era are online learning or e-learning, mobile learning or m-learning, blogs, and social networks (Fojtik, 2014; Vera, 2020). With the rapid advancement of wireless and mobile learning technologies around the world, the use of cell phones and other portable devices has recently begun to have an impact on language teaching and learning (Ashiyan & Salehi, 2016). The growth of new language learning technologies has turned into mobile, portable, and personal (Yousefzadeh, 2012). The perspective on how students can expand their knowledge of collocation has been developed by social networking sites (SNS) (Ashiyan & Salehi, 2016). Social networks, which are very popular to meet individual needs for socialization. Its individual focus has begun to shape the user interaction process and has become one of the important



elements in everyday life. This potential for enabling synchronous and asynchronous communication that is cooperative together and includes social networking features on a large scale, should not be overlooked (Cetinkaya, 2017).

Through the easy access to information offered by the global community that the internet has created and the new connections made possible by social networks, students today are more privileged than ever to acquire valuable knowledge in the hands-on area (Keogh, 2017). Social media encourages social learning in an effective way so that it can replace traditional modes of teaching (Buzzetto-more, 2015; Buzzetto-more, 2015; Zayed, 2016). The increasing and ubiquity of social media adoption of Web 2.0 and Web 3.0, such as social networking sites, wikis, and blogging, provide broad avenues for proactive cooperative and collaborative teaching and learning (Pachler, Bachmair, & Cook, 2010; Yagci, 2015). With this, developing countries have no reason why they cannot adopt online learning in the most remote parts of the country where connectivity is a major setback. Wherever mobile is used, whether for WhatsApp, Email, video or photo sharing, online learning is possible (Koomson, 2019).

In recent years, instant messaging applications, which can be identified as mobile-based social networks, have started to become popular (Cetinkaya, 2017). Although there are many instant messaging applications that can operate on mobile devices, it appears that the WhatsApp application is one of the most preferred mobile-based applications than other media and is proven in classroom learning (Nitza & Roman, 2016). Its simplicity of use allows it to be liked by people of all ages and provides a communication opportunity for anyone who installs applications with an internet connection (Adomi & Solomon-Uwakwe, 2019). To support formal education, educators can use applications such as WhatsApp to create a discussion environment with students as well as to distribute and share content (Nitza & Roman, 2016). Such virtual chat offers learners a sustainable, portable and dynamic space where they can enter into a dialogue that is reciprocal, cumulative, supportive and purposeful (Keogh & Robles, 2018).

The WhatsApp application can be defined as a social network that allows quick access to information (Adomi & Solomon-Uwakwe, 2019). WhatsApp has turned into a shared platform that prioritizes accessibility, motivates cooperation and strengthens motivation to take life components in academic assignments (Ashiyan & Salehi, 2016). This is evident in the availability of teachers sending course materials and assignments via WhatsApp, so that they can directly reach everyone and allow students to review material at home and gain additional knowledge outside the formal classroom (Nitza & Roman, 2016). This application is preferred because it can send real-time messages to individuals or groups of friends simultaneously, low cost, and privacy (Church & Oliveira, 2016). This application has the potential to improve learning, increase student motivation, remove social barriers, and generate self-confidence, productive and useful collaborative, building associations that encourage students to learn continuously and sustainably (Ashiyan & Salehi, 2016; Cetinkaya, 2017).

Despite its many advantages, social media also has its drawbacks, such as distracting students' attention and causing students to allocate less time to learning (Adomi & Solomon-Uwakwe, 2019). In addition, there are many messages and the need to deal with inappropriate language, and finally, students have high expectations that teachers will answer their questions quickly and easily (Nitza & Roman, 2016). Social media also creates a blurred boundary



between formal and informal spaces. To overcome these shortcomings, it is necessary to use other media that can help teachers and students in the learning process. The media is called Social Network Learning (SNL), which is social media whose use is specifically for learning. One of the applications used is edmodo.

Edmodo is a free social education platform that provides a safe learning environment for teachers and students to communicate and share educational content (Al-said, 2015). It is a closed social learning network that is considered unique compared to other Social Networking Sites (SNS) such as Facebook and Twitter in that it provides users with safe and private settings (Khodary, 2017). Edmodo is a secure social networking community that provides an educational micro blogging environment for teachers and students, also can be seen as a multi-platform Learning Management System (LMS) that can facilitate educators to organize and manage their online classes easily (Al-said, 2015). Overall, Edmodo is simple; It is a friendly user interface, common to all smartphone operating systems, providing useful tools for students and teachers to interact online outside of the classroom (Hourdequin, 2014).

As a means of social interaction, Edmodo reveals a high level of acceptance (Kongchan, 2008). This is because Edmodo and Facebook have similarities in several features such as profile views and allowing users to provide comments and posts (Khodary, 2017). However, it differs from Facebook in that it is a closed network that is safe and gives thought to teachers and parents as no stranger can view student posts or visit them without the teacher's permission (Balasubramanian, Jaykumar, & Nitin, 2014; Ariani, Helsa, Ahmad, & Prahmana, 2017; Khodary, 2017). This allows teachers and students to upload, exchange and share videos, documents, notes, blogs, Internet links, and PowerPoint Presentations (PPT) to foster communication anytime and anywhere (Khodary, 2017). Students are able to develop higher order thinking skills to analyze and respond to assignments posted on Edmodo while teachers facilitate the process (Mokhtar, 2016).

Edmodo contributes to improving teamwork skills, increasing interaction among students. Edmodo in an educational setting can better equip teachers to be able to deal with the latest technology effectively and to promote learning and education in the school environment (Al-Zoubi, 2019). Teachers may like Edmodo because it provides a simple function for teachers to create and manage their online classroom community (Kongchan, 2008). Edmodo is also easy to learn for novice teachers, especially those new to technology because it is developed based on the principles of group-based classroom management and social media. Its main feature is the active support of the online media communication model, teaching materials, and evaluation (Sugito, Es, Hartono, & Supartono, 2017).

In making personal and worldly relationships through Edmodo, novelty from assignments, site interactivity, and platform friendliness are some of the main points students like when completing assignments online that can later attract them to be more involved and connected (Mokhtar, 2016). Edmodo's chat feature allows students to expand both the type and amount of their communication offering opportunities to increase their self-confidence and motivation (Al-Kathiri, 2015).

Another important medium to support distance learning is the Zoom Meeting Application. Zoom Meeting is a learning media using video. This application can be used for



free by using an internet connection (Haqien & Rahman, 2020). Through this application, students and teachers can meet face to face directly using a digital device (computer, tablet pc, or smartphone) using an internet connection anywhere. This application was chosen because it is more secure and effective in conducting discussions or discussing material with communication that is supported by features such as group messages so that if there are obstacles in audio, it can be assisted by the available features (Brahma, 2020). In addition, teachers and students can display their documents to be displayed in ongoing discussions.

The use of multimedia in learning Indonesian is mandatory in distance learning. However, teachers still have to use learning models to achieve the expected goals. The scientific approach is promoted as the main learning approach for all subjects, including language learning, in the 2013 Curriculum (Abidin, 2012; Kustijono & Wiwin, 2014). This approach facilitates students to gain knowledge or skills with scientific procedures (Kurnik, 2008). Learning to use this approach has a positive influence on teachers and students, because the learning refers to a scientific thinking process that trains systematic and holistic thinking (Fajarianingtyas, Akbar, & Herowati, 2019). This approach encourages students to seek knowledge from various sources through observation and not only given by the teacher (Nugraha & Suherdi, 2017). This approach is used to give students a comprehensive understanding to know and understand various materials, that information comes from anywhere and anytime (Wijayanti, 2014). This approach is also one of the approaches that are expected to foster student learning motivation (Wahyono, Abdulhak, & Rusman, 2017).

Although the scientific approach has been used in Indonesian language learning, innovation is needed if its use is carried out in distance learning. This is done so that the use of multimedia in learning does not only function as a medium, but is also related to language learning models. Based on this explanation, the purpose of this research is to innovate the Indonesian language learning model during the COVID-19 pandemic by developing a scientific approach with multimedia. In this study, the results of research at the development stage will be described, namely the results of the validity and practicality of research products.

2. METHODS

This type of research is Research & Development (R & D) with the aim of producing products through certain stages. The research was conducted to develop a product in the form of a multimedia-based learning model. The development model used in this study is an adaptation of an existing model, namely the 4-D model (four D model) proposed by S. Thiagarajan, Dorothy S. Semmel, and Melvyn. I. Semmel. This model consists of four stages, namely, define (needs analysis, student analysis, curriculum analysis, concept analysis, analysis of the formulation of learning objectives), design (product framework design and product draft design), develop (trial product to determine the value of validity, practicality and effectiveness), and disseminate (distribution of the product either limited or widely) (Trianto, 2012). This learning model produces products in the form of Model Books, Teacher Books, and Teaching Materials for students in the form of digital products. The product is adapted to the 2013 curriculum which is text-based and uses a scientific approach. The learning model contains multimedia equipped with Social Learning Network (SNL). The social media used in the development of this model



are Edmodo, Whatsapp and Zoom Meeting. It aims to assist students and teachers in carrying out distance learning. The learning materials presented are based on the learning objectives of Core Competencies and Basic Competencies.

Product trials were carried out in several high schools in Padang City. Of the 16 Senior High School in Padang City, SMA N 3 Padang and SMA N 7 Padang were selected as test sites. The two schools were selected based on the facilities and infrastructure owned by the school. This learning model is implemented by using computer learning, so that learning requires the use of adequate computers to carry out learning activities. In choosing the school, it is predicted that the trial process will run well. The trial was carried out from January to February 2021. The trial schedule was adjusted to the school curriculum so that the products developed were suitable for use at that time. The research instruments were questionnaires, observation sheets, and tests. The data analysis technique used in this research is descriptive data analysis technique, which describes the validity, practicality, and effectiveness of the learning model.

This research will describe the results of the validity and practicality of the product. Validity is obtained by asking several experts to evaluate the product through a questionnaire. If the product has been declared valid, the product is tested in schools and used during learning. After the learning is completed, students and teachers fill out a product practicality questionnaire. In addition, practicality is also assessed from learning activities that are assessed using the learning activity observation sheet. While the results of the effectiveness of the product, will be described further in another article.

3. RESULT

Based on the results of the needs analysis, a learning model is needed as an alternative in learning Indonesian during the COVID-19 pandemic, namely learning from home or distance learning. This model needs to be innovated so that it is suitable and can support the process and results of learning Indonesian. The model developed is a multimedia-based Indonesian language learning model. This model was developed using a scientific approach and text-based learning. To support the learning process using this model, a model book, digital teaching materials was developed by integrating various media such as Zoom Meeting, Edmodo learning media, Whatsapp social media. The teaching materials used are also interactive. The syntax of the developed learning model can be seen in Figure 1. An explanation of this mode can be seen in the following article (Ramadhan, Atmazaki, Sukma & Indriyani, 2021).

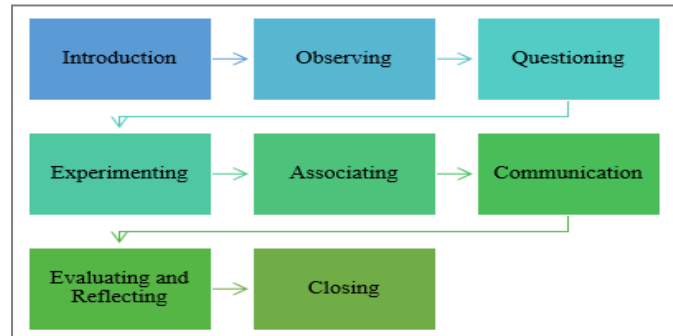


Figure 1. Learning Model Syntax

After the defining and design stages are complete, a develop stage is carried out. Development is carried out to test the learning model that has been designed. The activities carried out at this stage consisted of three, namely (a) validity testing, (b) practicality testing, and (c) effectiveness testing. These three stages are carried out sequentially. The first activity is to test the validity of the learning model. The validity test is conducted to determine the validity level of the model that has been designed. The validation process is carried out by experts who are experts in their fields. Based on the results of validation, the learning model can be seen whether it is valid or not, or is it feasible to be tested or not on students.

Validation is carried out in two ways, namely validation itself and validation by experts. Experts selected to validate the product are experts in the field to be validated (Lecturer or Teacher). Based on the analysis carried out on the validator's answer on the validation sheet, the results obtained are as shown in table 1 and table 2.

Table 1. Self Evaluation

No.	Rated aspect	Score	Validity (%)	Category
1.	Contents	2425	97.00	Very valid
2.	Language	1875	89.30	Very valid
3.	Presentation	750	93.75	Very valid
Overall Validity Value			93.35	Very valid

Table 2. Expert Validation

No.	Rated aspect	Score	Validity (%)	Category
1.	Contents	2475	99.00	Very valid
2.	Language	1925	91.67	Very valid
3.	Presentation	750	93.75	Very valid
Overall Validity Value			94.81	Very valid

Based on the table, it can be concluded that the multimedia-based Indonesian learning model is categorized as very valid. Therefore, the product that has been designed can be tested in the field (school) for use by teachers and students in the Indonesian language learning process.



The trial use of the learning model is designed to determine the practical value and effectiveness of the product that has been designed.

The learning model developed is categorized as very valid based on the results of validation carried out by expert validators. Based on this, the research was continued at the field trial stage. The trials were carried out in two high schools in Padang City, namely SMA N 7 Padang and SMA N 3 Padang. Tests are carried out to test the multimedia-based Indonesian learning model.

Testing was conducted with Indonesian language subject teachers. To find out the practicality of the learning model, the teacher assesses learning activities by filling out a questionnaire provided by the researcher. The questionnaire is filled in after the learning process is complete. The practicality of the learning model is useful for knowing whether the learning model designed is a practical learning model to be used in learning Indonesian. The practicality questionnaire contains statement items developed guided by the practicality indicators of the model, namely ease of use and can be studied according to the specified time. The practicality of the learning model was assessed by four teachers. The results of the analysis based on the practicality questionnaire of the learning model by the teacher can be seen in table 3.

Table 3. Practical Learning Model by Teachers

No.	Rated aspect	Score	Validity (%)	Category
1.	Ease of use	1387,50	92.50	Very practice
2.	Time used	281,25	93.75	Very practice
Overall Practicality Value			93.13	Very practice

The practicality of the learning model by students was collected after the Indonesian language learning activities using the multimedia-based Indonesian language learning model were completed. Practical data collection was done through filling out questionnaires by students. Through filling out a questionnaire, students provide an assessment and their opinion about the learning models that have been used in the learning process. The practicality of the learning model assessed by students includes aspects of the ease and time spent learning when learning using this learning model.

The questionnaire for the practicality of the learning model using the multimedia-based Indonesian learning model was filled in by 30 students. After the students filled out the questionnaire, a recapitulation and calculation was carried out to find out the practical value of the learning model. Furthermore, analysis is carried out based on the statement items, and the overall analysis is carried out. The results of this analysis can be seen in table 4.

Table 4. Practical Learning Model by Students

No.	Rated aspect	Score	Validity (%)	Category
1.	Ease of use	1200,8	85.77	Very practice
2.	Time used	245,0	81.67	Very practice
Overall Practicality Value			83.73	Very practice



For this practicality value, in addition to the questionnaire filled out by the teacher and students, observation of learning activities carried out by the teacher and assisted by researchers was also carried out. Student learning activities are obtained through observation or observation. Observations were made using the student learning activity observation sheet. The observation sheet consists of statement items related to student learning activities using the developed learning model. Student activity data were collected by the teacher as the first observer, and the researcher as the second observer.

This observation aims to see the suitability of the activities that are expected to appear in students learning Indonesian using multimedia-based Indonesian language learning models. The observed student activity consists of eight aspects of observation, namely observing, questioning, collecting data, associating, communicating, evaluating, and reflecting. After the data is obtained, analysis is carried out based on the results of the observations made. The results of observations from the learning process using this learning model can be seen in table 5.

Table 5. Student Learning Activities

No.	Rated aspect	Frequency	Activity (%)	Category
1.	Observing	30	100.00	Very active
2.	Questioning	26	86.67	Very active
3.	Collecting data	27	90.00	Very active
4.	Associating	27	90.00	Very active
5.	Communicating	30	100.00	Very active
6.	Evaluating	26	86.67	Very active
7.	Reflecting	26	86.67	Very active
Total			640.01	Very active
Average			91.43	

Based on the results shown in table 5, it is concluded that the learning model developed is practically used to improve student learning activities.

4. DISCUSSION

Nowadays multimedia has become an important part of language class facilities because of its unique and effective application in delivery and learning (Islam, 2020). Multimedia-assisted teaching outcomes can facilitate cognitive processes, remove barriers to traditional training and improve learning outcomes (Zakeri & Kasikhan, 2020). This makes many academics apply multimedia in learning, especially in language learning. The development of science and technology has resulted in the use of multimedia increasingly advanced by applying various models and learning media that are tailored to the needs of students to improve language skills.

First, using various media in the form of audio and visual with the tools used in learning. Orcid (2020) using a new form of digital storytelling (DST) as a product input in listening learning. The use of DST has a positive effect on the development of listening skills and is more effective than listening learning taught by voice recording and increases student motivation.



Furthermore, Islam (2020) uses multimedia in English classes by using cartoons, pictures and music with the intention of improving students' skills in academic writing, image critical analysis and critical appreciation of music. Multimedia has become an essential part of language class facilities because of its unique and effective application in delivery and learning.

Yawiloeng (2020) tested the effect of English vocabulary videos on second language vocabulary learning by English as a foreign language (EFL) learners. The results showed that EFL students preferred to learn L2 vocabulary through videos containing L1 and L2 text, interesting and related images, and appropriate audio volume. Zakeri & Kasikhan (2020) examined the effect of multimedia implementation on teaching technical models of translation and on text translation skills. The results showed that multimedia significantly improved students' technical text translation skills. Furthermore, Samat & Aziz (2020) found that the application of multimedia learning in learning to read comprehension is useful as a combination of various media elements that support the comprehension process. On the other hand, audio is least effective in helping students understand information. In line with this explanation, the research carried out also uses various multimedia elements, such as text, images, music, audio, and video, both those found from various sources and those designed and developed by themselves.

Second, multimedia applications in the use of teaching materials. Nikitova, Kutova, Shvets, Pasichnyk, & Matsko (2019) examining and evaluating the impact of the learning environment based on the “flipped classroom” model accompanied by multimedia-based textbooks on students' language skills and learning styles. The results showed that there was a shift in student preferences in learning, including a greater desire to engage independently with computer-assisted work, increased motivation to learn, faster problem solving, and improved time management, lifelong learning skills and good application to distance learning. In line with Zhang et al. (2020), states that multimedia, providing feedback, gamification and personalization are the four features most often applied in increasing the efficiency of e-book-based language learning. Karapetian (2020) also developed a multimedia-based textbook entitled “Business Skills Through English” which is applied using the “flipped classroom” model. This study found that this model cultivates students' critical thinking skills by engaging them in problem-solving based learning and enhances their academic performance by increasing their responsibility for learning outcomes and stimulating them to use different learning styles. In accordance with the research used, in developing this model, multimedia teaching materials used by students were also developed in the form of digital teaching materials developed with the exe learning application. This teaching material is interactive and connected with other media, namely edmodo as a medium of communication between teachers and students

Third, multimedia applications in learning using SNS (Facebook, Instagram, Twitter, Whatsapp, and others) and SNL (Edmodo, Google Classroom, Kahood, and others). Social media applications of Web 2.0 and Web 3.0, such as social networking sites, wikis, and blogging, provide broad avenues for proactive cooperative and collaborative teaching and learning (Yagci, 2015) and have created virtual spaces where communication can take place (Keogh & Robles, 2018). Using social networks as a tool for students to learn language better (Ramadhan, Asri, Sukma, & Indriyani, 2020; Ramadhan, Indriyani, Asri, & Sukma, 2020;



Ramadhan, Sukma, & Indriyani, 2020). Through easy access to information offered by the global community that has been created by the internet and new connections made possible by social networks or applications, students today are more privileged than ever to acquire valuable knowledge in the immediate area (Keogh, 2017).

Fattah (2015) applying the use of Whatsapp in language learning. The results showed that the application was effectively used in improving students' writing skills. In contrast to previous studies, Al-Kathiri (2015) used the edmodo application to support language learning. The results showed that students' perceptions of Edmodo were very positive and although there were considerable challenges to its integration, it appeared to have excellent potential to produce a more positive attitude towards learning. McCloskey, Thrush, Wilson-Patton, & Kleckova (2013) state that Zoom can be useful in EFL classrooms by designing activities that suit students' needs for virtual learning. Liang (2006) found that using Zoom could develop students' writing skills through text chat. Liang also suggested that Zoom sessions can increase students' motivation in learning and influence their face-to-face interactions (Ghounane, 2020). In contrast to research that only selects one medium, this study utilizes various media such as SNS (Whatsapp), SNL (Edmodo), and Zoom Meeting to increase the use of multimedia in language learning, especially in distance learning. Based on the results of the research, this learning model is practically used during use and time in learning.

5. CONCLUSION

Based on the results of the research and discussion, it was concluded that the learning model developed was valid and practical to use in learning. The learning model developed can be applied to distance learning and face-to-face learning. The use of this model can be done if schools, teachers and students have electronic devices such as computers and smartphones, besides that an internet network is needed so that the learning process can take place. Based on the trials that have been carried out, this model is easy to use in the learning process because this model is familiar to teachers, because researchers only innovate learning models based on current needs. Distance learning that is carried out suddenly does not make it difficult for teachers to use this learning model, because the new learning model needs to be studied first by the teacher so that it is easy to use. The multimedia used is also easy to use because these media have been used by teachers before. This model is applied to learning Indonesian to improve reading and writing skills. Based on that, the use of this learning model is not appropriate for listening and speaking learning because the learning process is more independent and oral interaction is not often done.

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