Students' Speaking Ability under the Use of Interactive E-Module In Fourth Semester Students of English Education Study Program at Muhammadiyah Kotabumi University Academic Year 2021/2022

[1]Angelica Marsellia, [2]Elis Susanti, [3]Rulik Setiani
Email: angelicamarsellia1@gmail.com, weasley.ndha@yahoo.com,
rulik.setiani@yahoo.com

[1,2,3]Universitas Muhammadiyah Kotabumi

Abstract: The researcher was interested in carrying out a research entitled; Students' Speaking Ability under the Use of Interactive E-Module in Fourth Semester Students of English Education Study Program at Muhammadiyah Kotabumi University Academic Year 2021/2022. The research was aimed to describe what is the level of students' speaking ability under the use of Interactive E-Module in fourth semester students of English Education study program at Muhammadiyah Kotabumi University academic year 2021/2022. This research was done at fourth semester students of English Education study program at Muhammadiyah Kotabumi University. The method of this research was descriptive quantitative. The sample were 44 students. The researcher used total sampling technique to select the sample. In collecting the data, the researcher used speaking test in form of retelling short movie. Furthermore, students would be assessed by two raters using a speaking assessment component that contains aspects of speaking such as: pronunciation, vocabulary, grammar, fluency, and comprehension. In analyzing the data, researcher used descriptive statistics and tendency data. From the analysis, it could be concluded that the students' speaking ability under the use of Interactive E-Module in fourth semester students of English Education study program was Good. The most dominant score level obtained by the students which 45% was categorized to Good. Interactive E-Module also made students more active and motivated during the speaking learning.

Key words: Speaking Ability, Interactive E-Module, Speaking Assessment

Abstrak: Peneliti tertarik untuk melakukan penelitian yang berjudul; Kemampuan Berbicara Mahasiswa dengan Penggunaan Interactive E-Module Pada Mahasiswa Semester IV Program Studi Pendidikan Bahasa Inggris Universitas Muhammadiyah Kotabumi Tahun Ajaran 2021/2022. Penelitian ini bertujuan untuk mendeskripsikan bagaimana tingkat kemampuan berbicara mahasiswa dalam penggunaan Interactive E-Module pada mahasiswa semester empat program studi Pendidikan Bahasa Inggris Universitas Muhammadiyah Kotabumi tahun ajaran 2021/2022. Penelitian ini dilakukan pada mahasiswa semester IV program studi Pendidikan Bahasa Inggris Universitas Muhammadiyah Kotabumi. Metode penelitian ini adalah deskriptif kuantitatif. Sampel penelitian adalah 44 siswa. Peneliti menggunakan teknik total sampling untuk memilih sampel. Selanjutnya, siswa akan dinilai oleh dua orang penilai menggunakan komponen penilaian berbicara yang berisi aspek-aspek berbicara seperti: pengucapan, kosakata, tata bahasa, kelancaran, dan pemahaman. Dalam mengumpulkan data,

[1]Mahasiswa Universitas Muhammadiyah Kotabumi
[2,3]Dosen Universitas Muhammadiyah Kotabumi

peneliti menggunakan tes berbicara dalam bentuk menceritakan kembali film pendek. Dalam menganalisis data, peneliti menggunakan statistik deskriptif dan data tendensi. Dari analisis tersebut, dapat disimpulkan bahwa kemampuan berbicara siswa di bawah penggunaan Interactive E-Module pada mahasiswa semester empat program studi Pendidikan Bahasa Inggris adalah Baik. Level skor paling dominan diperoleh siswa yaitu 45% berkategori Baik. E-Module Interaktif juga membuat siswa lebih aktif dan termotivasi selama pembelajaran berbicara.

Kata kunci: Kemampuan Berbicara, E-Module Interaktif, Penilaian Berbicara

INTRODUCTION

Speaking is one of the four skills should be mastered by English Education students beside listening, reading, and writing. Speaking is a person's ability to say words, to express, state, and convey ideas and feelings verbally to others. Miroslaw (2011, p.17) stated that speaking is the ability to pronounce articulation sounds to express, state, or convey thoughts, ideas, and feelings. Speaking is an interactive process of constructing meaning that involves producing, receiving, and processing information (Brown, 2001, p.121). Generally, speaking was defined as a skill used as a mean of interaction to convey information, express emotions and transfer ideas.

Speaking plays an important role to students that helps the students to convey messages, exchange information, and communicate with others. Miroslaw (2011, p.25) stated that speaking is important either in personal use or in academic use. A good speaker is someone who has the ability to communicate effectively and in a way that the listener can understand. According to Brown (2001, p.151) the components of speaking are pronunciation, grammar, vocabulary, fluency, and comprehension, that should be mastered in order to be able to speak well.

Speaking is difficult to be mastered by foreign language learners. They have difficulty in speaking because they do not use English in daily life, so the opportunity to learn English and practice it in their real life is very limited. Developing speaking skill to learners in Indonesia is not an easy task because English is a foreign language and it is not used in daily life. Moreover, speaking is the most complex and difficult skill to master. This consider complex because speaking involves communicative performance and other important elements such as pronunciation, grammar and vocabulary (Miroslaw, 2011, p.25).

Based on the implementation of KKNI curriculum (The Indonesian National Qualifications Framework) which refers to a qualification grading of quality

human resources, which is based on the level of ability (learning outcomes). It is hoped that it will change the way of looking at a person's competence, no longer just a diploma but by looking at the qualification of competence to create alumni who are useful to the community (Lubis, 2020, p.180). Therefore, in accordance with the implementation of the curriculum which is included in the learning outcome of the Speaking course, English education students are expected to have good competence in speaking ability. They are expected to become familiar with different spelling patterns, to understand many vocabulary, and they can use correct form of the words (correct pronunciation).

Speaking ability is certainly a very important skill to master, it will make it easier for them to convey messages, ideas, and expressions to others. Speaking ability is an important skill for students to master. It is suported by Hardiyanto (2018, p.109), speaking is the crucial skill to be mastered when students want to communicate each others orally. It is also a useful competence for them when entering the world of work.

In real condition absolutely different. Based on the result from preliminary observation during two meetings, namely on 2nd December 2021 and 14th December 2021 at speaking class, the researcher found some problems faced by third semester students of English

Education at Muhammadiyah Kotabumi University. They often confused when they speak English because of their lack of vocabulary. They frequently switch their language to *Bahasa Indonesia* due to limited vocabulary. The students pronunciation and grammar were still weak. The students found it difficult to pronounce the English words because they were not familiar with the words, this made them feel unconfident when speaking English. The other problem is students also feel bored and unmotivated because the media used in speaking class is less effective. It can be showed that some of them were busy with their own business. Those problems made students' speaking ability was quite low.

Those problems was strengthened by the results of interviews with several third semester students of English Education program. The results of interviews conducted with three students on 14th December 2021, they stated that it was difficult to speak English because they did not master English vocabulary, then they felt unconfident. They also stated that they felt bored while studying in speaking class because the media used in the lesson is less effective. The lecturer only use common media like LCD projector. They stated that the use of media is very important to be applied in speaking class. Therefore, developing effective media to increase the

students' performance as both language learner and language user can help enhance the students' English learning achievement in speaking ability (Richard, 2008, p.11). It means the use of appropriate media can enhance students' speaking ability.

One of the media can be used to improve students' speaking ability is by using Interactive E-Module which will be suitable to be applied in the class. The module is a collection of subject matter used by students for independent study, which is studied gradually and thoroughly, systematically arranged, equipped with assignments, exercises or evaluation materials, as well as other supporting materials to support the learning process in certain subjects (Osman, 2014, p.12). Interactive E-Module is an interactive digital book, combining speaking materials and interactive multimedia-based technology (materials with audio-visuals) that are interesting, innovative, and creative. Interactive E-Module offers a set of speaking materials that will be designed in a systematic, planned, and includes student learning experiences based on the existing environment/contextual (Nurlina, 2019, p.17). Interactive E-Module contains speaking materials such as (retelling short films, Lampung culture, and story telling) in the form of E-Module. Interactive E-Module also utilizes technology to make it easier to use. In addition, the display of this multimedia-based Interactive E-Module will make students more flexible in choosing, synthesizing, and elaborating the knowledge they want to learn and master (Abidin, 2015, p.25).

Interactive E-Module can be accessed easily, and can be used everywhere and everytime. So that Interactive E-Module can not only be used as learning resource during speaking lessons, but also it can be used in individual learning. Students can learn by themselves through this module to improve speaking ability. Day by day, after they learn and practice speaking by using the Interactive E-Module, their speaking ability will improve.

The researcher interested in doing this research because this in line with the research that has being conducted by an English lecturer at Muhammadiyah Kotabumi University, Susanti (2021), entitled *Development of an Interactive E-Module based on Local Wisdom as a Learning Media in the Speaking Class.* She has been implementing it in speaking class. It is hoped that by applying this media in the speaking class, it can improve students' speaking abilities. Therefore, the researcher conduct this research to find out the level of students' speaking ability under the use of Interactive E-Module.

METHOD

This research conducted by using descriptive quantitative method because the data presented in numerical and descriptive form. According to Cresswell (2014, p.63), descriptive research is used to describe characteristics of a population or phenomenon being studied. Quantitative method used to emphasize the analysis on numerical data (numbers) are processed with statistical methods (Cresswell, 2014, p.20). Therefore, quantitative descriptive method is a quantitative research in which the description is numerical (statistics). It means that the result of the research emphasized in numeric. Then the researcher used descriptive method to describe the result of this research.

The population of this research was the students of English Education Program at Muhammadiyah Kotabumi University in fourth semester that consisted of 44 students. The sample of the research consisted of 44 students from the fourth semester students of English Education, Muhammadiyah Kotabumi University. In this research, the researcher used the total sampling technique. Total sampling is a sampling technique when all members of the population are used as samples (Sugiyono, 2014, p.124). It means that the researcher investigated all members of the population. It is also supported by the statement from Jay (2008, p.25) that if the population of the research less than 100 participant, it is better to take all the population becomes the sample.

The instrument of this research was speaking test. Since this research wanted to find out what is level of students' speaking ability, so speaking test instrument is very suitable to answer the research question. Arikunto (2002, p.127) argued that test is a series of questions or exercises or other tools used to measure the skills, knowledge, intelligence, ability or aptitude of the individual or group. In this research, the researcher applied Oral Test. In assessing the oral test, the researcher used speaking assesment score indicator to measure students' speaking ability. This was adapted and matched from Brown (2001, p. 406-407) which consist of five aspects, those were pronunciation, grammar, vocabulary, fluency, and comprehension.

Validity refers to how accurately a method measures what it is intended to measure. In this research, the researcher used construct validity. Swerdlik (2010, p.190) stated that construct validity is a validity test that uses the opinion of experts (judgment experts) which is usually done by being asked to express their opinion regarding the instruments that have been prepared. In this case, the researcher asked for the judgment from the speaking lecturer,

Mrs. Dewi Sri Kuning, S.Pd., M.Pd and Mrs. Elis Susanti, M.Pd.

Reliability is the degree of consistency of a measure. Batchman (2010, p.153) states that reliability is the consistency of measures across different conditions in the measurement procedures. A test will be reliable when it gives the same repeated result under the same conditions. It is clear that reliabillity is used to measure the quality of the test scores and consistency of the test. This research used inter-rater reliability. To estimate the inter-rater reliability of the rating results in this study, the researcher used the Pearson's Reliability test. Pearson's reliability test measured the strength and direction of the relationship between two raters.

Data collecting method dealt with how the researcher would get the data. The data collecting technique is a technique or method used by researchers to be able to collect data related to the problems of the research they take (Cresswell, 2014, p. 107). In this research, the researcher used oral test as data collecting technique because it was made to measure what is the level of students' speaking ability under the use of Interactive E-Module. The oral test that has been used by the researcher is in the form of Retelling Short Movie.

Data analysis is the step of collecting, selecting, and converting data into information. Creswell (2014, p.57)

stated that data analysis is the process of processing data with the aim of finding useful information that can be used as a basis for decision making for the solution of a problem. In this research, researcher used descriptive statistics technique and central tendency data analysis.

According to Cresswell (2012, p.182), descriptive statistics indicate general tendencies in the data (mean, mode, median), the spread scores (standard deviance, range, frequency distribution table). Descriptive statistics summarize the overall trends or tendencies in data. It provide an understanding of how varied scores might be and provide insight into where one score stand in comparison with other (Cresswell, 2012, p.183). Tendency data analysis is a data processing technique that aims to describe the data of each variable (Ananda and Fadhli, 2018, p.52). This technique used to describe what is the level of students' speaking ability under the use of Interactive E-Module.

RESULT AND DISCUSSION
RESULT

This research used the quantitative descriptive research. It was to find out the level of students speaking ability under the use of E-Module Interactive in fourth semester students of English education

study program at Muhammadiyah Kotabumi University academic year 2021/2022.

This research was conducted on 13 July 2022 at Muhammadiyah Kotabumi University in the academic year of 2021/2022. The researcher took fourth semester students of English education study program which consisted of 44 students as samples. The researcher gave speaking test to find out students'speaking ability. This test was aimed to measure the level of students' speaking ability under the use of Interactive E-Module. After the lecturer taught the material about Retelling Short Film to students, the researcher asked them to speak in front of the class and retell about the short film entitled "The Silent Child" which has been watched and learned from the Interactive E-Module. Then, the raters, Mrs. Elis Susanti, M.Pd and Angelica Marsellia assessed the speaking score on each student based on speaking assessment. There were five components of speaking to be scored in this research such as: Pronunciation, Grammar, Vocabulary, Fluency, and Comprehension.

After got the speaking test score, researcher used an inter-rater reliability test from two raters which aimed to increase the objectivity of the assessment of the subject, as well as see the consistency of the assessment by each rater. Researcher used two raters, namely Mrs. Elis Susanti, M.Pd

and Angelica Marsellia. To calculate consistency of rating between two raters or inter-rater reliability, the formula Pearson's reliability was used. The result of Pearson's correlation reliability it was found the r score = **0,974**. It can be concluded that the reliability of the score from two raters was a very high reliability with **0,9742**. It means, the level of strength of the relationship or correlation between the two raters is 0.975 or it can be said to be very strong.

After the score from two raters was confirmed to get very high reliability, then the researcher calculated the average score from the two raters as the student's final score. From the final score, it was known that **the lowest score is 65** and **the highest score is 85**. Then the researcher measured central tendency. Measures of central tendency are summary numbers that represent a single value in a distribution of scores (Cresswell, 2012, p.184). Central tendency used to find out which score or value is the center of the distribution of other scores. They are expressed as an average score (the mean), the middle of a set of scores (the median), or the most frequently occurring score (the mode) (Cresswell, 2012, p.184).

From the calculation of central tendency, the researcher got the value of central tendency which includes mean $(\bar{X})$, median (M_d), and mode (Mo). It was found

that the mean ($\bar{X}$) or the average of students' speaking final score was = 76,89, median (M_d) or the value of center item in the students' speaking final score was 77,5, and mode (Mo) or the value that frequently occur in the students' speaking final score were 76 and 78.

Next, the researcher measured the frequency distribution table. The steps and formulas for presenting the frequency distribution table are taken from Ananda and Fadhli (2018, p.65). The frequency distribution table was as follows:

TABLE 1
FREQUENCY DISTRIBUTION TABLE

No.	Interval Score	Frequency	Percentage
1	65-67	1	2%
2	68-70	3	7%
3	71-73	5	11%
4	74-76	11	25%
5	77-79	11	25%
6	80-82	9	20%
7	83-85	4	9%
Total		**44**	**100%**

Based on the table above, the highest frequency of students score were in the interval class number 4 which has a range of 74-76 that is 25% with a total of 11 students and the interval class number 5 which has a range of 77-79 that is 25% with a total of 11 students. While the other

frequency distribution were 2% between interval 65-67, 7% between interval 68-70, 11% between interval 71-73, 20% between interval 80-82, and 9% between interval 83-85.

After that, researcher determined the level of students speaking ability by used tendency test. It was aimed to find out whether the students' speaking ability level was in the category very good good, fair, very poor, or poor. Researcher calculated tendency test adopted from Zainudin (as cited in Ananda and Fadhli, 2018, p.58-59).

First, the researcher calculated the ideal mean (M_i) and the ideal standard deviation (SD_i) :

$$M_i = \left[\frac{highest\ score + \ lowest\ score}{2} \right]$$

$$M_i = \left[\frac{85+65}{2} \right]$$

$$\mathbf{M_i = 76}$$

$$SD_i = \frac{highest\ score - \ lowest\ score}{6}$$

$$SD_i = \frac{85-65}{6}$$

$$\mathbf{SD_i = 3,33}$$

After found the score of the ideal mean (M_i) and the ideal standard deviation (SD_i), the researcher then determined the categorization norm criteria. The categorization norm was as follows:

TABLE 2. CATEGORIZATION NORM

Norm/Scoring Criteria	Norm/Scoring Criteria	Categories

$X > M_i + 1,5 SD_i$	$X > 81$	Very Good
$M_i + 0,5 SD_i < X \leq M_i + 1,5 SD_i$	$77 < X \leq 81$	Good
$M_i - 0,5 SD_i < X \leq M_i + 0,5 SD_i$	$74 < X \leq 77$	Enough
$M_i - 1,5 SD_i < X \leq M_i - 0,5 SD_i$	$71 < X \leq 74$	Poor
$X \leq M_i - 1,5 SD_i$	$X \leq 71$	Very Poor

Description:

X: The score of the subject

M: Mean

SD: Standard Deviation

Having collected the data of students' speaking test result, it was then calculated to find out frequency of the data, percentage of students speaking ability and the tendency level of students' speaking ability. The description of the categories students' speaking abilities were presented as follow:

TABLE 9
THE CATEGORIES OF STUDENTS SPEAKING ABILITY

Norm/Scoring Criteria	Norm/Scoring Criteria	Frequency	Percentage	Categories
$X > M_i + 1,5 SD_i$	$X > 81$	4	9%	Very Good
$M_i + 0,5 SD_i < X \leq M_i + 1,5 SD_i$	$77 < X \leq 81$	20	45%	Good
$M_i - 0,5 SD_i < X \leq M_i + 0,5 SD_i$	$74 < X \leq 77$	10	23%	Enough
$M_i - 1,5 SD_i < X \leq M_i - 0,5 SD_i$	$71 < X \leq 74$	6	14%	Poor

Norm/Scoring Criteria	Norm/Scoring Criteria	Frequency	Percentage	Categories
$X \leq M_i - 1,5\ SD_i$	$X \leq 71$	4	9%	Very Poor
Total		44	100%	

Based on the table, it was found that 4 students with a percentage of 9% were included in the Very Good category, 20 students with a percentage of 45% were included in the Good category, 10 students with a percentage of 23% were included in the Enough category, 6 students with a percentage of 14% were included in the Poor category, 4 students with a percentage of 9% were included in the Very Poor category. It can be concluded that the most of the students speaking ability of the fourth semester students English Education Study Program belongs to Good category in which there are 20 out of 44 students or 45% students with Good speaking ability.

DISCUSSION

The research was conducted at Muhammadiyah Kotabumi University on July 2022. The purpose of this research was to find out the level of students speaking ability under the use of Interactive E-Module. In order to measure the students' speaking ability, the students were asked to speaking in form of retelling short movie from Interactive E-Module. Then, the researcher and other rather assessed their speaking performances based on speaking assessment which contained five aspects, those were: pronunciation, grammar, vocabulary, fluency, and comprehension. There were 44 students as samples in this research were they taken from the fourth semester students of English Education study program.

The findings of this research showed that the fourth semester students' speaking ability of English Education study program was in the Good category. A number of samples of 44 students were used as samples, 9% of students' speaking abilities were in the Very Good category, 45% of students were in the Good category, 23% of students were in the Enough category, 14% of students were in the Poor category, and 9% of students were Very Poor category. As matter as fact, the most dominant score obtained by the students is categorized to *Good*.

The data above was also supported by a number of facts that the researchers found when conducting the speaking test. Most of them had the criteria of Good speaking ability. The students showed the ability such as: they had intelligible pronunciation and almost clear when they were speaking, they occationally made grammatically and/or word order errors, but did not obscure meaning, the raters and listeners still understand about what they have said, they sometimes used inappropriate vocabulary, when they spoke, the speed of speech seem to be slightly affected by language problem and nervousness, and most of them can retell the content of the short film well.

Interactive E-Module also gave positive impact to students. It can be seen from researcher's observation during conducted the research. Researcher has conducted pre-observation on 2nd December 2021 and 14th December 2021, at that time, Interactive E-Module had not been applied in the speaking class. Many problems were found such as lack of vocabulary, they frequently switch their language to *Bahasa Indonesia* due to limited vocabulary, the students difficult to pronounce the English words because they were not familiar with the words, and the most visible problem was the lack of motivation and interest of students to learn

speaking. It can be showed that some of them were busy with their own business.

In contrast, when Interactive E-Module has been implemented by the speaking lecturer, Mrs. Elis Susanti, M.Pd at four meetings in the speaking class. When the researcher conducted the research on 13th July 2022, the students were very interested and excited to speaking. They were very active, it was proven by many students raise their hands and wanted to show their speaking skills when they asked by the lecturer to speak. This happened because Interactive E-Module provided learning materials through an interesting combination of images, animation, and even voices. The Interactive E-Module was using Canva application on speaking material was in accordance with the needs of students to speak English. The Interactive E-Module that was applied to the speaking learning process is equipped with explanations, examples of questions on the material that made it easier for students to understand.

The attractive appearance of Interactive E-Module made students interested in learning, as a resut it increased their motivation in speaking. By using these displays, students' boredom due to the monotonous learning will be reduced; hence, the students will be more motivated and more interested in understanding the material delivered (Rabiatul et.al, 2020,

p.79). Overall, it can be concluded that Interactive E-Module did not only influence the students' speaking ability but also increased students interest and motivation during speaking learning. This result also supported by the statement from Suryadie (2014, p.15), Interactive E-Modules are innovative media that can increase student interest in learning.

CONCLUSSION

Based on the explanation on the previous chapter, the researcher conclude that this research is designed as a descriptive quantitative research. Time and location of this research were in July 2022 at the fourth semester students of English Education study program at Muhammadiyah Kotabumi University. In speaking test, the researcher asked the students to retelling short movie from the Interactive E-Module. In scoring the students' speaking, the score was given by two raters. The score then calculated and accumulated by using descriptive quantitative analysis and tendency test. The result from tendency test was found that the students' speaking ability under the use of Interactive E-Module in fourth semester students of English Education study program was Good. The most dominant score obtained by the students which 45% was categorized to Good. Interactive E-Module also made students more active and motivated during the speaking learning. The attractive appearance of Interactive E-Module made students interested in learning, as a resut it increased their motivation in speaking.

REFERENCES

Abidin, Z., & Walida, S.A. (2019). Interactive E-Module Model of Transformation Geometry Based on CASE (Creative, Active, Systematic, Effective) as a Practical and Effective Media to Support Learning Autonomy and Competence. *International Journal of Development Research*, 9(1).

Ananda, R., & Fadhli, M. (2018). *Statistik Pendidikan: Teori dan Praktik dalam Pendidikan.* CV. Widya Puspita.

Arikunto, S. (2002). *Metodologi Penelitian Suatu Pendekatan Proposal*. PT. Rineka Cipta.

Bachman, L. & Palmer, A. (2010). *Language Assessment in Practice*. University Press.

Brown, H. Douglas. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy* (Second Edition). Longman, Inc.

Brown, H. Douglas. (2004). *Language Assessment: Principles and Classroom Practices*. Pearson Education.

Creswell, J. (2012). *Educational Research: Planning, Conducting, And Evaluating Quantitative And Qualitative Research (4thed.)*. NJ: Pearson Education.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE.

Hardiyanto, S. (2018). Cooperative Learning Method; How It Does Influence Speaking Skill At The Tertiary Level?. *Jurnal Lingua Sastra*, 16(2), 106-115.

Kuning, D. S. (2019). Technology In Teaching Speaking Skill. *Journal of English Education Literature and Linguistics*, 17(2), 36-45.

Lubis, A. F. (2020). Manajemen Kurikulum Berbasis Kerangka Kualifikasi Nasional Indonesia (Kkni) Di Perguruan Tinggi Islam. *Jurnal Managemen Pendidikan Islam*. 4(2), 146-158.

Miroslaw, P. (2011). *Speaking and Instructed Foreign Language Acquisition*. MGP Books Group.

Nurlina, U., Sulissusiawan, A., & Seli, S. (2019). Pengembangan Modul Interaktif untuk Meningkatkan Keterampilan Berbicara Sekolah Dasar Bawamai Pontianak. *Jurnal Pendidikan dan Pembelajaran*, 8(3), 1-11.

Osman, K. (2014). Impact of Interactive Multimedia Module with Pedagogical Agents on Students' Understanding and Motivation in the Learning of Electrochemistry. *International Journal of Science and Mathematics Education*, 12(2), 395-421. https://doi.org/10.1007/s10763-013-9407.

Rabiatul et.al. (2020). Implementation of an Interactive E-Module to Improve Concept Understanding of Students. *Advances in Social Science, Education and Humanities Research*, Vol. 513.

Richard, J. C. (2008). *Teaching Listening and Speaking From Theory to Practice*. Cambridge University Press.

Sugiyono. (2018). *Metode Penelitian Kuantitatif*. Alfa Beta.

Suryadie. (2014). *Pengembangan Modul Elektronik IPA Terpadu Tipe Shared untuk Siswa Kelas VIII SMP/MTs*. Skripsi. UIN Sunan Kalijaga.

Swerdlik, M. (2010). *Psychology Testing and Assessment: An Introduction to Test & Measurement* (Seven Edition). The McGraw-Hill Companies, Inc.