Advances in Social Science, Education and Humanities Research, volume 574
Proceedings of the 6th International Conference on Science, Education and Technology (ISET 2020)

The Development of 3D Pageflip Professional–based Pregnancy Care E-Module on Midwifery Students' Motivation and Learning Outcomes

Ely Shovrotul Khoiriyah
Universitas Negeri Semarang, Indonesia
elyshovrotul@gmail.com

Totok Sumaryanto Florentinus
Universitas Negeri Semarang, Indonesia

Ari Yuniastuti
Universitas Negeri Semarang, Indonesia

***Abstract*---This study aimed to develop a valid and reliable 3D pageflip professional-based pregnancy care e-module, test the effectiveness of e-module and analyze the effect of e-module on Diploma III Midwifery Students' motivation and learning outcomes. The type of this research was the Research and Development (R&D) with the ADDIE model. The data collection techniques used primary data from the validation of experts (media expert and content expert) and students as respondents. The results of this study indicated that 1) the review result of the content expert and the media expert stated that the 3D Pageflip Professional-based pregnancy care e-module was valid and feasible. 2) the 3D Pageflip Proffesional-based pregnancy care e-module was effective on student learning outcomes. 3) The influence of pregnancy care e-module on students' motivation showed that Sig (2-tailed) 0.030 <0.05 means that there was a significant difference that the use of E-module based on 3D pageflip proffesioal affected students' motivation to learn, besides, Sig value (2-tailed) of 0,000 indicated that Sig (2-tailed) 0,000 <0.05 that means that there was a significant difference between students' learning outcomes before and after using E-modules means that the use of E-modules affected students' learning outcomes. It was concluded that the 3D pageflip professional-based pregnancy care e-module was valid for proper use, effective and influential to increase the motivation and learning outcomes of midwifery students.It was suggested that lecturers should be as creative as possible to develop media or teaching module that are in accordance with the characteristics of midwifery students and institutions should facilitate lecturers to be more innovative.**

Keywords: E-modul, pregnancy care, 3D Pageflip Professional, motivation, learning outcomes.

I. INTRODUCTION

Midwifery education has an important role in producing competent and professional midwives. Competent and professional midwives start from a quality learning process. The current global development, demands the development in terms of the quality of human resources and in the world of education in Indonesia has undergone many transformations, ranging from methods, media, curriculum, and many others.

Midwifery learning continuously needs to be developed, matter of fact, the midwifery curriculum in Indonesia has not been implemented optimally, it can be seen from the lack of reasoning ability and critical thinking of students in every midwifery learning process, (Dewi & Wawan, 2010). Generally, the teaching modules that can be used are in the form of printed and non-printed media. Printed media can be developed into digital media in the form of modules that are transformed into electronic modules. The existence of technological developments in the education world which includes the electronic module media or e-module, is an alternative in the learning process.

E-module are a combination of printed and computer media, so e-module can present information in a structured, interesting manner and have a high level of interactivity and the learning process no longer depends on the instructor as the only source of information, (Gunadharma, 2011). Software that can be applied in developing e-modules is *3D Pageflip Professional. 3D Pageflip Professional* is a software that can be used to create teaching materials with 3D effects. The 3D Pageflip Professional application can make the appearance of electronic module more attractive with the addition of animation, images, audio-visuals, various formats such as Exe, Zip, Html and others.

According to Racmah, Rosha & Vani (2018) stated that the electronic module design developed for class X students had met good criteria and was suitable for use as a medium for learning physics on work and energy topic in schools.Meanwhile, according to Sari, Jufrida & Pathoni (2017) stated that the contents in the module was according to the Semester Study Plan (SSP) and the design used was appropriate, 74.67 students' perceptions are in the appropriate category and the *3D Pageflip Professional* was valid and feasible to be used.

Students' motivation in learning has the potential to improve learning outcomes so that, one of the efforts to motivate students in learning is teaching content and media to assist lecturers in delivering learning material so that students can understand the contents of pregnancy care courses. According to

Adriani, Rike and Rasto (2019) stated that the there is an effect of learning motivation on student learning outcomes, based on the coefficient of determination, and the effect was 21%. Meanwhile, according to Afryansih, Nila (2013) there is a relationship between students' motivation and learning outcomes, the strength of the relationship between motivation and learning outcomes is included in the medium category and small contribution.

According to Sutanto, Hakimi (2015) stated that most students are not in accordance with competencies and learn from what has happened. The achievement of good learning outcomes is done in stages and students' learning ability is influenced by psychological and social factors.

According to interviews with lecturers, students need to be given an innovation to replace the role of using digital technology which is mostly used to play Instagram, Facebook, or watch movies. The change of function of digital technology is for something more useful, that is to learn, so that their learning outcomes in difficult lectures can be increased, because the grades in pregnancy care course is one of the courses in which only a small proportion of students can get maximum marks.

II. METHOD

The research method used in this study is *research and development* (R&D).

The research procedures were carried out using the ADDIE model. The ADDIE model includes requirements analysis, design, development, implementation and evaluation.

The sampling technique was *purposive sampling.* The data used was quantitative data. The data collection technique in this study was the collected data included primary data. The instrument used was non-test and test instrument. The assessment of the feasibility of the media using Likert scale, e-module effectiveness test on learning outcomes used an average similarity test conducted with the *2 sample T* test using SPSS. The criteria for hypothesis test is acceptable if.*sig* > 0.05 while effect test of motivation and learning outcomes used *T-Test*.

III. RESULT AND DISCUSSION

1. Developing the *3D Pageflip Professional-based* Pregnancy Care E-module

a. Analysis

The Analysis of E-Module Care Pregnancy Development Needs

1) The Analysis of Lecturers Needs

Learning that is often done in the classroom still uses the printed module or presentation whether it displays documents or PowerPoint on the projector. In pregnancy care course, learning resources are needed with learning media that can present the contents in the form of audio and visual to motivate students, because the students way of learning varies.

2) The Analysis of Student Needs

The analysis of student needs result showed that 85% of students needed new and practical media. Practical in which in one file that contains all the topics and practices. The use of printed modules makes the students unable to know examples of practices in pregnancy care, which makes pregnancy care course difficult. On media offerings that can be opened through a mobile phone or laptop, all students were agree with it because it can maximize a laptop or cell phone to learn.This has led researchers to develop a 3D Pageflip Professional-based pregnancy care e-module, because it can display audio, video, and text in its media.

b. The Design of 3D Pageflip Professional-based Pregnancy Care E-Module

The making of this media was based on the design of media creation in *storyboards* and *flowcharts.*

Media Design Making. At this stage the learning media are made, starting from typing the material, practice questions, evaluating and proceeding by including images, giving anations, videos, sounds and navigation. In accordance with the design, this pregnancy care e-module contains covers, instructions for use, preface, table of contents, indicators, objectives, material, evaluation and profile. In addition there are 3 option buttons in the main menu namely the house picture button that functions to return to the table of contents, the cross button that serves to close the E-module, the right arrow that functions as a substitute for the next thing and the left arrow to return to the previous page item question.

c. Development

The design of learning media that would be developed was divided into several sections, namely intro, instructions, references, indicators, objectives, content, evaluation and profile. After the process of making this E-Module had completed, the media would then be reviewed by experts who will assess the suitability of the content and validity of the media. The experts who would assest the learning media were content expert and media expert.

(1) Content Expert Validator

The content revision was adjusted to the input, suggestions, and criticisms provided and the concept of learning media developing. In accordance with the content expert lecturer questionnaire located in Appendix 3, revealed that the learning media material that must be revised includes:

(a) Semester Study Plan (SSP)

Before the revised SSP learning was still set in the classroom, but due to Covid-19 Pandemic, the content expert asked to replace the learning

design with online learning because there were no learning activities in the campus.

(b) Addition of Content Questionnaire

Besides SSP, content expert suggested adding questionnaires including Trimester I and II of Pregnancy Danger Signs questionnaire, Trimester III of Pregnancy Danger questionnaire and Nutrition Health Education Questionnaire for Pregnant Women.

(2) Media Expert Validator

Media revision was adjusted to the input, suggestions, and criticisms provided and the concept of developing instructional media. In accordance with the questionnaire the media expert revealed that this learning media that had to be revised included:

(a) Main Menu

In the main menu or part of the cover, media experts suggested adding the origin agencies in the form of text or logo in order to be more attractive to the users if they know the agency who makes the media.

(b) Button Constistency

(c) There were still many pages that did not have a button yet, including the *home* button, *next page, back page* and *close.*

(d) Video

Media experts suggested that the video previously located below the handling steps table should be replaced on the next page and made with larger resolution, because the room under the table was too small, so that users do not need to create a *full screen* to play the video.

d. Implementation

Product Trial

Preparations were made by checking the address of the website first to download e-modules made by researchers and asking students to fill in the learning motivation questionnaire before learning.

Then after everything was ready, the researcher distributed it to the student group then a trial implementation would be carried out.

Before entering into the contents, the researcher explained to students through a group on a social media how to use the learning media. When conducting a trial the student is directed to study independently of the Maternal Emergency Detection topic using the Pregnancy Care E-Module, while researchers and lecturer only acted as facilitators.

The results of the implementation of the trial stated that there was an increase in student learning outcomes and learning motivation, which from the average score and the percentage of passing grade. 3D Pageflip Professional-based Pregnancy Care E-module has been successfully used in large group trials with an average increased in learning outcomes of 10.2, while the average motivation for learning increased by. next.

e. Media Evaluation

1. Media Evaluation by Media Expert

Media evaluation by media experts was carried out after the media development process had been completed. The result data of media evaluation questionnaires by media expert are presented in table 1:

Table 1 The Evaluation Result by Media Expert

Aspect	Average score	Criteria
Simplicity	4.2	Good
Cohesiveness	3,2	Enough
Learning Interaction	3,4	Enough
Balance	3,2	Enough
Form	4,1	Good
Color	4.5	Very good
Language	3.8	Good
Average	**3.77**	**Good**

Based on the results of the evaluation of media experts presented in Table 1. Get an average score of 3.77 with Good criteria. Furthermore, in the comments and suggestions section, the media expert wrote down the revision as their suggestions, then the media experts stated that the E-module was appropriate to be tested out with a revision.

2. Content Evaluation by Content Expert

Media evaluation by content expert was done after the media development process has been complete. The result data of media evaluation questionnaires by media expert are presented in the following Table 2:

Table 2 The Evaluation Result by Content Expert

Aspect	Average score	Criteria
Quality of Content	4,4	Very good
Quality of learning	4.2	Good
Quality of Interaction	4	Good
Display Quality	4	Good
Average	**4.15**	**Good**

Based on the results of the evaluation of the expert presented in Table 2. The media got an average score of 4.15 with the criteria of Good. Furthermore, in the comments and suggestions section, the media experts wrote down the revision as their recommendations, then the content expert stated that the e- module was appropriate to be tested out with a revision.

3. Evaluation O leh Pregnancy Care Lecturer

This evaluation aimed to obtain input that would be used to improve the developed media so that

the final stage of media revision could be done. The result data of media evaluation questionnaires by lecturer are presented in Table 3 below.

Table 3 The Evaluation Result of Pregnancy Care Lecturer

Aspect	Average score	Criteria
Quality of Content and Purpose	4,3	Very good
Technical Quality	4.2	Good
Quality of learning	4	Good
Average	**4.17**	**Good**

From Table 3 above, the media got an average score of 4.14 and was categrized in good criteria. Not only was the eligibility criteria was very good, but also the lecturer stated that the E-Module was eligible to be tested out.

4. Students' Evaluation and Response

After conducting learning using the pregnancy care e-module, students then filled out a questionnaire that contains the learning process using the e-module. The experiment class with the pregnancy care e-module, there were 16 students filled out the questionnaire of this E-module to see their evaluation and responses. The evaluations included: quality of content and purpose, quality of techniques and quality of learning. Following are the result of the questionnaire as listed in Table 4.

Table 4 Evaluation Result by Students

Aspect	Average score	Criteria
Quality of Content and Purpose	3,9	Good
Technical Quality	4.2	Good
Quality of learning	4,4	Very good
Average	**4.17**	**Good**

Based on Table 4, the average evaluation obtained by students was 4.17 with good criteria.

2. Testing the Effectiveness of 3D Pageflip Professional-based Pregnancy Care E-Module at Universitas Ngudi Waluyo Semarang.

2.1 The Result of The Effectiveness of E-Module to Learning Outcomes

Before performing the learning, students were given the pretest first and then after that they started the learning with the pregnancy care e-module, lastly they are given them some questions about pregnancy to determine whether the of e-module was effectively used to the students' learning outcomes. The result was presented in Table 5:

Table 5 The Result of Pretest and Posttest scores

	Experimentation Class	Control class
Number of students	16	16
Pretest Average	75.9	74.25
Students who do not complete the pretest	4	6
Posttest average	86.1	81.3
Students who have not completed the posttest	0	0

It can be seen in Table 5 that the average experimental class increased between the average pretest and posttest scores with a difference of 11. While for the two classes on pretest there were students who had not passed the minimum score, while on posttest everyone passed. Then the data above was used to test the hypothesis. Before tested the hypothesis there was a prerequisite test using the obtained pretest score:

1) Normality test

The normality test of the initial data used the pretest score of the learning outcomes of the two classes, namely the experimental class and the control class, using the *Kolmogorov-Smirnov* test. The calculations used SPSS with the criteria if the value. $Sig \geq 0.05$, then H_0 would be accepted. A summary of the result of normality test calculations is presented in the Table 6:

Table 6 Summary of the Normality Test of the Initial Data

The mean	StDev	N	KS	*.Sig*
75	6.44	32	.705	.702

From Table 6 above, it appears that the value. $Sig > 0.05$, therefore, H_0 was accepted. This showed that the class' pretest data is normally distributed.

2) Homogeneity Test

The Homogenity test of the initial data used *Levene's* test on SPSS with acceptance criteria as follows. If the value. $Sig \geq 0.05$, then H_0 would be accepted. The result of homogeneity test of the initial test data is presented in Table 7:

Table 7 Summary of the Homogeneity Test of the Initial Data

	***P-Value* Test Equal for Variences**	
	Levene's Test	**.sig**
Preliminary data	.341	0.563

Based on Table 7 above, with the number of 16 students in experimental class and 16 students in

control class, it was showed that in column *Levene's Test for Equality of Variances* value *sig* 0.563> 0.05, therefore, H_0 was accepted. So, the initial data variance from the two classes pretest was the same or homogeneous.

3) Average Equivalence Test

The average similarity test used *2 sample T* in SPSS with acceptance criteri as follows. If the value.*sig* ≥ 0.05, H_0 would be accepted. The result of the average similarity test of the initial data are presented in Table 8 below.

Table 8 Summary of Average Equivalence Test

Preliminary data	*2 sample T-tests*	
	T-Value	***.sig***
	0.38	.708

In Table 8 the result of average equialent test indicated the value *Sig* 0.708 > 0.05 then H_0 was accepted. So, there was no difference in the average ability of students in the two classes. Therefore the pretest rate of the two classes is the same. A summary of the test result can be seen in Table 9:

Table 9 Summary of Average Comparison Test Result Experimentation and Control Classes

	T test	
	t_{table}	**t_{count}**
Second class *posttest*	2,045	2,199

Table 9 above shows that the t_{count} value was 2.109> t_{table}= 2.045. So, H_0 was rejected and H_1 was accepted. This means that the students' learning outcomes average with the 3D Pageflip Professional-based e-module was better than the students' learning outcomes average with the conventional learning.

3. The Effect of *3D Pageflip Professional-based* Pregnancy Care E-module on Motivation and Learning Outcomes

a) The effect of *3D Pageflip Professional-based* Pregnancy Care E-module on learning motivation. The following are the result of students' motivation.

Table 10 Recap of Learning Motivation Results

	Students Total	Average
Learning Motivation Pretest	16	66
Learning Motivation Posttest	16	73.89

From table 10, it could be seen that there was an increase in student learning motivation between before being given the *3D Pageflip Professional-based* Pregnancy Care E-module, the difference between the pretest and post test was 7.89. After that to see the effect of the E-module on students' learning motivation researcher used the T test, a prerequisite test using the normality test was needed. Following are the test result presented in Table 11:

Table 11 The Result of Learning Motivation Normality Test

Data	**StDev**	**N**	***.Sig***
Pretest	7.7	16	0.122
Postest	9.5	16	.119

As can be seen in Table 11 it is known that the significant pretest and posttest values werre 0.122 and 0.119, so that the obtained significant values are more than 0.05. Therefore, it could be concluded that the pretest and posttest data of students' learning motivation in the research class were normally distributed. A summary of the effect test was presented in Table 12:

Table 12 Summary of the Effects Test on Learning Motivation

	Paired Sample T-Test	
	T	**Sig. (2Tailed)**
*Pretest – Posttest*Motivation	-2,400	0.03

The calculation results showed that the Sig (2-tailed) value of 0.030 was obtained. This means that Sig (2-tailed) 0.030 <0.05. So it could be concluded that H_0 was rejected and H_a was accepted, which means there was a significant difference between students' learning motivation before and after using the *3D Pageflip Professional-based* Pregnancy Care E-module. In other words the use of *3D Pageflip Professional-based* Pregnancy Care E-module affected students' motivation.

b. The Effect of *3D Pageflip Professional-based* Pregnancy Care E-module on Learning Outcomes.

The following are the results of student motivation to learn which are presented in Table 13.

Table 13 Recap of Learning Motivation Result

	Students Total	Average
Learning Outcomes Pretest	16	75.9
Learning Outcomes Posttest	16	85.1

From table 13, it can be seen that there was an increase in students' learning outcomes before and after being given the *3D Pageflip Professional-based* Pregnancy Care E-module, the difference between the pretest and post test was 9.8. After that, to see the

effect of E-module on students' learning outcomes, the researcher used T test.

A summary of the effect test presented in Table 14 as follows:

Table 14 The Effect Test Result of Learning Outcomes

	Paired Sample T-Test	
	T	**Sig. (2Tailed)**
Pretest - Posttest Learning Outcomes	-5,186	0,000

The result of calculations using the SPSS shown in Table 14 obtained a Sig (2-tailed) value of 0,000. This means that Sig (2-tailed) 0,000 <0.05. Therefore, it could be concluded that H_0 was rejected and H_a was accepted. It shows that there was an effect on students' learning motivation after being given the *3D Pageflip Professional-based* Pregnancy Care E-module.

IV. DISCUSSION

The development of learning media followed the ADDIE (*Analysis, Design, Development,Implementation,* and *Evaluation*) development model. Step by step has been carried out according to development needs. All stages of this media development were very important and one of the stages was the *development* stage, which was the making of media and evaluation by media experts and material experts.

The purpose of the evaluation by experts was to obtain input, criticism, and suggestions for improvement for the perfection of the media developed. Suggestions and criticisms from these experts became references for the revision of the learning media. In addition to experts input, the evaluation questionnaire would also determine the validity of the media. After the media was declared valid and worthy of testing, the media was tested on teachers and students to find out the response and quality of the learning media.

The *3D Pageflip Professional-based* Pregnancy Care E-module which was used by experimental class did an increase in the average scores of 10.2 and all students who were taught using the the *3D Pageflip Professional-based* Pregnancy Care E-module passed the minimum criteria that was equal to 80. In comparison, the result of the average score in control class who were taught only using document files, it was found that the t_{count} was 2.109> ttable = 2.045. It showed that the use of the the *3D Pageflip Professional-based* Pregnancy Care E-module was better than the document files media, this was because the use of E-module could cover all student learning styles, which were audio, visual and kinesthetic while the control class of students only read the text. In line with a research that has been done by Nurulita (2017) which stated that the use of E-module obtained a better students' learning outcomes because the E-module was more interactive than the use of ordinary document files.

Research and Development using ADDIE model to develop media has been proven to be very feasible and effective resulted 75% on improving learning outcomes, (Ahmadi,F, Hapsari I, Rozi F et al, 2019). The improvement of the learning outcomes due to the use of E-module was because students learn to use new media. Furthermore, an attractive appearance can make students prefer to use the E-module so that the learning intensity becomes high and learning outcomes could increase. The use of media is needed to keep up with the times and provide different learning and can attract students (Budi, 2012; Hidayat, 2012; Permana, 2013 & Faesal, 2015). Besides, increasing learning outcomes with the use of media on learning can make students comfortable and have confidence (Saadati, 2014 & Arif, 2017). Increased motivation due to the use of E-modules was because students did not have to look for examples of practical videos of pregnancy care, because the video has been presented on the E-module.

The use of E-modules that can be opened by students using cell phones can make the students learn anywhere, it makes students have more study time because they do not need to carry books while learning it also can motivate students to learn as explained by Nkiruka (2016) who said students motivated to use e-books because they can read them comfortably in their homes and save a lot of time.

V. CONCLUSION

1. E-module as learning media was developed for maternity care teaching content including maternal emergency learning and was made with attractive templates or layouts.
2. The feasibility of the 3D Pageflip E-module which was developed as a maternity care teaching content was declared feasible by media expert and content expert.
3. The effectiveness of the E-module as a pregnancy care learning media obtained a good response, because students could learn wherever and whenever so it was more flexible and enjoyable because it could be accessed using a smartphone and laptop.

VI. SUGGESTION

1. E-module as learning media can be developed further for other subjects as variations in the learning process.
2. Further research is expected to be carried out at the dissemination stage using a broad sample.
3. For lecturers to be able to add insight into the types of teaching contents that will be used so that they can support learning activities to create more varied forms and types of learning media in

accordance with the development of science in order to better improve the quality of learning.

REFERENCES

[1] Aditia, M. Taufik, Novianti & Muspiroh. (2013). "Pengembangan Modul Pembelajaran Berbasis Sains, Lingkungan, Teknologi, Masyarakat Dan Islam (Salingtemasis) Dalam Meningkatkan Hasil Belajar Siswa Pada Konsep Ekosistem Kelas X Di Sma Nu (Nadhatul Ulama) Lemahabang Kabupaten Cirebon". J Scientiae Educatia Vol. 2(2). DOI: 10.24235/sc.educatia.v2i2.478

[2] Aflaha DSI, Suparmi, Sarwanto. Pengembangan Modul Fisika Berbasis Problem Solving Materi Elastisitas Untuk Siswa Kelas X SMA/MA. J Inkuiri [Internet]. 2015; 4(I): 63–72. DOI: https://doi.org/10.20961/inkuiri.v4i1.9548

[3] Fikri H Al, Zubaidah E. Developing Module of Children Literature To Increase the Students' Critical Thinking. Lentera Pendidik J Ilmu Tarb dan Kegur. 2018; 21(2): 162.

[4] Gehan Mohamed Ahmed Mostafa, & Afaf Salah Abd-El-Mohsen. (2014)."Development Of Self-Leadership Skills Training Module Based On Need Assessment Of Nursing Personnel: Mobile Learning Application". International Journal Of Advanced Research In Management (IJARM). Vol. 5(4), pp. 66-84

[5] Ghaliyah,S, Bakri, F. Siswoyo. (2015). "Pengembangan Modul Elektronik Berbasis Model Learning Cycle 7E Pada Pokok Bahasan Fluida Dinamik Untuk Siswa SMA Kelas XI". Prosiding Seminar Nasional Fisika. 4(4): 149-154.

[6] Hamalik,Oemar. (2011). *Proses Belajar Mengajar*. Jakarta: Bumi Aksarang Pada siswa kelas XII IPS SMA N 10

[7] Handayani, Meta Aditya. (2014). "Efektifitas Metode Drill Berbantuan Modul Pembelajaran dalam uapaya Meningkatkan Hasil Belajar Siswa Kompetensi Dasar". Jurnal Khusus Perusahaan Dagang pada Siswa Kelas XII IPS SMA N 10 Semarang Tahun Ajaran 2013/2014: EEAJ 2

[9] Krisnaresanti, A., Slamet, A., Wahyudin, A., & Semarang, U. N. (2018). E-Book Development of Trading Company Adjustment Journal Based on 2013 Curriculum. *Journal of Economic Education*, *7*(1), 39–44.

[10] Nopriyanti, N. (2018). Pengembangan Modul Elektronik Berbasis 3D Pageflip Professional Mata Kuliah Gambar Teknik di Program Studi Pendidikan Teknik Mesin. *Jurnal Dinamika Vokasional Teknik Mesin*, *3*(1), 64–75. https://doi.org/10.21831/dinamika.v3i1.19125

[11] Novrianti, N. N. (2018). E-Modul Computer Based Learning Sebagai E-Resource Digital Literacy Bagi Mahasiswa. *Journal Educative : Journal of Educational Studies*, *3*(1), 58. https://doi.org/10.30983/educative.v3i1.646

[12] Rachmah, A., Rosha, J. M., & Vani, N. D. (2018). Pengembangan Modul Elektronik Berbasis 3D PageFlip Professional pada Materi Usaha dan Energi. *Physics Education*, *July*.

[13] Raihan, S., Haryono, & Ahmadi, F. (2018). Development of Scientific Learning E-Book Using 3D Pageflip Professional Program. *Innovative Journal Of Curriculum and Educational Technology*, *7*(1), 7–14.

[14] Seruni, R., Munawaoh, S., Kurniadewi, F., & Nurjayadi, M. (2019). Pengembangan Modul Elektronik (E-Module) Biokimia Pada Materi Metabolisme Lipid Menggunakan Flip Pdf Professional. *Jurnal Tadris Kimiya*, *4*(1), 48–56. https://doi.org/10.15575/jtk.v4i1.4672

[15] Syahrial, Arial, Dwi Agus Kurniawan & Suci Okta Piyana. (2019). "E-Modul Etnokontruktivisme: Implementasi Pada Kelas V Sekolah Dasar Ditinjau Dari Persepsi, Minat Dan Motivasi". Jurnal Teknologi Pendidikan Vol. 21(1), pp 165-17.

[16] Wahyu, Muhammad, Setiyadi, Ismail, & Hamsu Abdul Gani. (2017) "Pengembangan Modul Pembelajaran Biologi Berbasis Pendekatan Saintifik Untuk Meningkatkan Hasil Belajar Siswa". Journal of Educational Science and Technology. Vol 3(2) pp 102-112.

[17] Winarti,Eko. (2017). *Buku Ajar Kesehatan Reproduksi*. Sidoarjo: Indomedia Pustaka.

[18] Wiyoko, Tri. (2014). "Pengembangan Media Pembelajaran Fisika Modul Elektronik Animasi Interaktif Untuk Kelas XI SMA Ditinjau Dari Motivasi Belajar Siswa". Jurnal Pendidikan Fisika. 2 (2-11)

[19] Yulizawati, Iryani, Elsinta. (2017). "Analisis Penggunaan OSCE Sebagai Metode Penilaian Kompetensi Klinis Mahasiswa Bidan". Journal Of Midwifery. 1 (1-10).