The Effect of E-Textbook Construction of Women's Fashion Patterns on Students' Motivation and Learning Outcomes

Esty Nurbaity Arrsyi*, Yeni Sesnawati, Talitha Ilma Sabrina

Fashion Design, Universitas Negeri Jakarta, Jakarta, Indonesia
Email: enurbaity@unj.ac.id

ABSTRACT

This study aims to determine the effect of using e-textbooks in learning the construction of women's clothing patterns on student motivation and learning outcomes. The research method used is pre-experimental design, with the Intact-Group Comparison model. The technique of collecting data on learning outcomes uses a test technique (Guttman scale) and motivational data through a closed questionnaire (Likert scale). Learning outcomes were analyzed using inferential statistical data with t-test analytic tests. Learning motivation was analyzed using descriptive statistics. The results showed that the e-textbook on the construction of women's clothing patterns had a positive effect, where the data on learning outcomes and learning motivation in the experimental class were superior to those in the control class.

Keywords: *Effect, E-Textbook, Construction of Women's Clothing Patterns, Motivation, Learning Outcomes.*

1. INTRODUCTION

Currently, Indonesia has entered the era of industrial revolution 4.0, where digital technology has become an important aspect in human activities, especially in the academic aspect [1]. During the pandemic, to reduce the spread of Covid-19, the government recommended carrying out all activities at home, including learning activities carried out online, known as distance learning (PJJ) [2]. By carrying out distance learning activities, both teaching staff and students are required to be able to use technology as well as possible. Teachers must use e-learning as a learning model, so teachers are required to be ready to hold distance learning using e-learning [3]

PJJ activities make the learning process carried out online (in a network), for this reason it is necessary to have learning media that supports the learning process [4]. In implementing PJJ, learning media is needed that is supported by technology that can be accessed anywhere and at any time to facilitate student learning, especially when implementing learning independently without teacher guidance and supervision. Currently, there are various kinds of teaching materials presented digitally, one of which is e-textbooks. E-textbook is a learning tool that contains the following elements: textbook, workbook, and learning tool [5]. It is said that students

can use e-textbooks at home, at school, or wherever and whenever without space and time limitations, in other words, e-textbooks are always alive and moving, developing and producing knowledge for both students and others to support and help with learning activities [6]

The most obvious obstacle in implementing PJJ is learning that includes practical material, because learning with practical material requires a more detailed learning process [7].

One of the courses that experiences problems in teaching and learning activities in the Fashion Education Study Program is the Women's Fashion Pattern Construction (KPBW) course. This is because the majority of students who take this course have a high school (SMA) educational background and are not yet familiar with fashion patterns, and in delivering practical material lecturers use up to two devices at once during online teaching and learning activities [8]

Based on the syllabus, it is stated that the KPBW course has a lecture weight of three credits with a total time of 150 minutes. With this limited learning time, it is hoped that students can practice and develop their abilities in making patterns at home. During the training and development period, students do not have guidance or supervision from teachers at home. With learning

media that is prepared in detail (step by step) and presented digitally, it is hoped that it can increase effectiveness in implementing teaching and learning activities in these courses, especially when learning is carried out online [9]

The use of e-textbooks can be said to be effective if it succeeds in achieving the specified goals [10]. The use of electronic learning media is generally said to be effective, referring to the results of previous research [11] which states that e-textbooks for basic programming subjects in Vocational High School (SMK) students' learning are classified as very good and the majority of students achieve complete learning outcomes tests. The effectiveness of e-textbook use can be measured based on the following indicators, namely: (1) Targeting motivation, (2) Content, (3) Operational activities and (4) Evaluative results [12]. Indicators of effectiveness are divided into two, namely: (1) Learning completeness and (2) Student learning activities [13]. The effectiveness of learning media can be measured based on student learning motivation [14] and student learning outcomes [15]. To measure the effectiveness of using e-textbooks in KPBW courses, it can be measured through learning motivation and student learning outcomes after using KPBW e-textbooks.

An electronic-based textbook (e-textbook) for the KPBW course which includes material on the development of sleeves, collars, skirts and blouses which are made in detail and presented digitally to assist learning activities.

Referring to the explanation above, the E-textbook Construction of Women's Clothing Patterns cannot be said to be effective if it has not achieved the stated objectives [16]. Therefore, this research aims to analyse the effectiveness of learning the digital-based e-textbook Construction of Women's Clothing Patterns for Fashion Design Education students at Jakarta State University who are taking the KPBW course. The effectiveness of this research will be measured based on indicators of learning motivation and student learning outcomes [17].

2. RESEARCH METHOD

The research method used is experiment with pre-experimental designs, intact-group comparison model, where there is one group used for research. The group was divided in two group, experimental and control. This population is students from the fashion design education study program who are taking the women's fashion pattern construction course as many as 52 students.

This research will look at the effectiveness of using e-textbooks in the construction of women's clothing patterns through learning outcomes and student learning motivation. The instruments given to respondents were an achievement test in the form of multiple choices to obtain data on learning outcomes, and a closed

questionnaire which refers to a Likert scale to obtain data on learning motivation. These two instruments were given to respondents after treatment in the experimental class.

Test the validity of the instrument using content validity and reliability using internal consistency. Data analysis on learning outcomes uses inferential statistics with the T-Test analysis test, while data on learning motivation will use descriptive statistical analysis techniques.

3. RESULTS AND DISCUSSION

3.1 Learning Outcomes

Learning outcome data was obtained by distributing instruments in the form of 15 multiple choice questions which were distributed to two classes, experimental and control after carrying out treatment in the experimental class. This instrument was distributed to respondents in the experimental class as many as 26 students and the control class as many as 26 students.

Tabel 1. distribution of learning outcome data

	Experiment	Control
N	**26**	**26**
Mean	79.2308	68.2051
Minimum	66.67	46.67
Maximum	93.33	80.00
Range	26.67	33.33

It can be concluded that the learning outcomes produced in the experimental class after treatment showed better results compared to the control class.

Based on the results of the t-test analysis of student learning outcomes, it is known that the $t\ hitung$ value is 4.514 and the t table is 1.674 with a p-value of 0.000, also supported by the average value in the experimental class which is 79.23, greater than with the control class, namely 68.20, indicating that there are significant differences in learning outcomes, by using the KPBW e-textbook students get better learning outcomes.

3.1. Motivation to Learn

Table 2. Percentage Level of Learning Motivation.

	Experiment	Control	Total
very high	16 (30.7%)	2 (3.84%)	18
High	8 (15.3%)	6 (11.5%)	14
Low	2 (3.84%)	16 (92.3%)	18
Very Low	0	2 (3.84%)	2
Total	26	26	52

Based on these data (table 2), it can be concluded that the experimental class has a higher percentage level of learning motivation compared to the control class. Based

on motivation theory [18] if learning motivation is low then the individual tends not to have changes in behavior that can influence success in learning, on the other hand, if motivation to learn is high then the individual tends to have changes in behavior that come from both within and outside themselves which can influence success in learning.

Based on the research results, the pattern construction e-textbook is said to be effective because it has a significant influence on the learning outcomes and learning motivation of students who take the women's fashion pattern construction course. The use of e-textbooks for women's fashion pattern construction is very effective because apart from being able to be accessed easily using a mobile phone or laptop. Learning using an e-textbook on women's clothing pattern construction can help students understand the construction of women's clothing patterns tends to be easier because pattern making is presented in detail. Moreover, during the current Covid19 pandemic, learning is carried out remotely (PJJ), so it will be easier to learn learning material through learning media presented digitally.

4. CONCLUSION

The results showed that the e-textbook on the construction of women's clothing patterns had a positive effect, where the data on learning outcomes and learning motivation in the experimental class were superior to those in the control class.

REFERENCES

[1] Higgins, S. Xiao, ZhiMin, Katsipataki and Maria, The Impact of Digital Technology on Learning: A Summary for the Education Endowment Foundation. Full Report, ERIC Institute of Education Science, 2012, number ED612174.

[2] M. Salehudin, Dampak Covid-19: Guru Mengadopsi Media Sosial Sebagai E-Learning Pada Pembelajaran Jarak Jauh, Jurnal MUDARRISUNA: Media Kajian Pendidikan Agama Islam, 10(1), 2020. DOI: https://doi.org/10.22373/jm.v10i1.6755

[3] A. Purwanto, R. Pramono, M. Asbari, P. B. Santoso, L. M. Wijayanti, C. H. Choi and R. S. Putri, Studi Eksploratif Dampak Pandemi COVID-19 Terhadap Proses Pembelajaran Online di Sekolah Dasar. EduPsyCouns: Journal of Education, Psychology and Counseling, 2(1), 2020, pp. 1–12.

[4] I. Fuady, M. A. S. Sutarjo, E. Ernawati, Analysis of Students' Perceptions of Online Learning Media During the Covid-19 Pandemic (Study of E-learning Media: Zoom, Google Meet, Google Classroom, and LMS), RISS (Randwick

International of Social Science) Journal, vol 2 (1), 2021, pp. 51-56. DOI: https://doi.org/10.47175/rissj.v2i1.177.

[5] E. Ashley, Rhodes, G. Timothy and A. Rozell, constructivist approach to e-text design for use in undergraduate physiology courses, American physiological sosiety, vol 39 (3), 2015, pp. 172-180. DOI: https://doi.org/10.1152/advan.00011.2015

[6] M. A. Hamedi and S. M. Ezaleila, Digital Textbook Program in Malaysia: Lessons from South Korea. Publishing Research Quarterly, 31(4), 2015, pp. 244–257. DOI: https://doi.org/10.1007/s12109-015-9425-4

[7] L. T. Prawanti and W. Sumarni, Kendala Pembelajaran Daring Selama Pandemic Covid-19. Prosiding Seminar Nasional Pascasarjana UNNES, 2020, pp. 286–291.

[8] R. Lubis, Syafitri, R. F. Sari and H. Cipta, Efektivitas Pembelajaran Model Grasha-Riechmann, Seminar Nasional Matematika dan Aplikasi, November 2017, pp. 1–11.

[9] N. F. H. Alifiya and E. S. Rahman, Efektivitas penerapan interaktif e-book mata pelajaran pemrograman dasar pada siswa smk, Jurnal Media Elektrik, 17(2), 2020, pp. 14–18.

[10] G. Nurgaliyeva, A. Tazhigulova, E. Artykbayeva, G. Akhmetova and A. Arystanova, Pedagogical technology of using ebooks in Kazakhstan, Espacios, 40(12), 2019.

[11] M. E. Oswald-Egg and U. Renold, Experience, no employment: The effect of vocational education and training work experience on labour market outcomes after higher education, ELSEVIER Journals and Books, vol. 80, 2021. DOI: https://doi.org/10.1016/j.econedurev.2020.102065.

[12] D. Nambiar, The impact of online learning during COVID-19: students' and teachers' perspective, The International Journal of Indian Psychology, vol 8 (2), 2020. DOI: 10.25215/0802.094.

[13] Srimaya, Efektivitas Media Pembelajaran Power Point untuk Meningkatkan Motivasi Dan Hasil Belajar Biologi Siswa, Jurnal Biotek, vol. 5 (1), 2017, pp. 53–68. DOI: DOI: https://doi.org/10.24252/jb.v5i1.3446.

[14] F. Saadi, Peningkatan Efektivitas Belajar Peserta Didik dalam Pembelajaran Ilmu Pengetahuan Sosial Menggunakan Media Tepat Guna Di Kelas IV Sekolah Dasar Negeri 02 Toho, Thesis, Universitas Tanjungpura Pontianak, 2013.

[15] Z. D. Martha, E. P. Adi and Y. Soepriyanto, E-book berbasis mobile learning. Jurnal Kajian Teknologi Pendidikan, 1(2), 2018, 109–114.

[16] Y. Wahyuliani, U. Supriadi and S. Anwar, Efektivitas Penggunaan Media Pembelajaran Flip Book Terhadap Peningkatan Hasil Belajar Siswa Pada Mata Pelajaran Pai Dan Budi Pekerti Di Sma Negeri 4 Bandung. TARBAWY: Indonesian Journal of Islamic Education, 3(1), 2016. DOI: https://doi.org/10.17509/t.v3i1.3457.

[17] S. Bibi and H. Jati, Efektivitas Model Blended Learning Terhadap Kuliah Algoritma dan Pemrograman. 5(2), 2015, 74–87. DOI: 10.21831/jpv.v5i1.6074.

[18] A. Neher, Maslow's Theory of Motivation: A Critique, SAGE Journals vol 31 (3), 2020. DOI: https://doi.org/10.1177/0022167891313010.