



Improving learning outcomes: The effectiveness of ebook reading literacy based in learning management psychology

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ABSTRACT

This study aims to improve learning outcomes in the Management Psychology course by using ebook teaching materials based on reading literacy for students of the Educational Administration Study Program, Faculty of Education, Padang State University, Indonesia. This study used a 2 x 2 factorial design experiment with ANOVA. This study obtained the highest score of 96.6 for the experimental class, and 93.3 for the control class. While the average student learning outcomes for the experimental class were 81.93 and for the control class, the average was 71.75, which means that there was a significant difference in the learning outcomes of students who used ebook teaching materials higher than students who used printed teaching materials. Meanwhile, the results of the Fcount analysis are $0.40 < F_{table} 3.98$, meaning that there is interaction between reading literacy and teaching materials on student learning outcomes in the Management Psychology course, Educational Administration Study Program, Faculty of Education, Universitas Negeri Padang.

Keywords: teaching materials, reading literacy, learning outcomes, management psychology

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INTRODUCTION

The learning process is the formation of human personality (Imam Suyitno, Kusubakti Andayani, Peni Dyah Anggari1, 2021). It is very important to increase intelligence, critical thinking skills, and strengthen personality, a good learning process will also make good learning outcomes and learning objectives will be achieved (Machmud & Alfaridzi, 2022). Teachers need to organize learning that is contextual, innovative, and interesting so that students are more motivated to learn and they get better learning outcome (Laurentius Saptono, Budi Eko Soetjipto, Wahjoedi, 2020). The learning process is essentially a communication process, the process of delivering messages from the source of the message to the recipient (Komara, 2018). The process of sending the message can be done at the same time and at different times. The learning process is an activity that involves individuals in an effort to acquire knowledge, by utilizing various sources for learning (Putri & Dj, 2013).

The use of printed learning resources, such as books, is currently deemed less effective in addressing the various challenges brought about by the rapidly evolving era of technology and digitalization. One of the main challenges is the limitation in presenting interactive content. Printed books cannot provide the dynamic learning experiences that digital resources often offer, with their incorporation of visual, audio, and interactive elements, making the learning process more engaging and aiding students' better understanding of concepts. Research by Zahara, (2017) reveals that in the current global world, students require instant access to diverse sources of information from anywhere and at any time. Digital-based learning materials enable students to

learn easily through electronic devices such as computers, tablets, or smartphones, while printed books rely on their physical form, restricted by specific times and locations (Komara, 2018).

Research Idrus (2021) that the use of printed books is also difficult to apply to the learning styles of today's younger generation, because today's younger generation is growing up with sophisticated technology, and they are more familiar with using digital devices to obtain information. Thus, students may respond more positively to learning that utilizes advanced technology and engaging digital resources. Given the developments in technology and student learning styles, many educational institutions and educators have sought solutions by combining digital resources with traditional learning methods. This approach is expected to increase the effectiveness of learning and provide a more varied learning experience for students.

One of the learning resources that can be applied to college students is the use of Ebook in their class, because Ebook make it easier for lecturers and students to deliver and understand learning material and can support the learning process (Raihan, 2018, Yusmar et al., 2018). Ebook can be used anywhere and anytime, it can be improve the result of student learning and student reading literacy skills, because students can read study material anytime and Ebook can be accessed using their android (Harjono, 2020, Nugroho, 2016).

The benefits of using Ebook are easy to use, interactive, equipped with videos, animations, images and text (Zahara, 2017, Idrus, 2021). The Ebook can optimize the achievement of learning goals although the limited learning time, and the use of Ebook saves learning costs (Muswita, 2018, Zahara, 2017). Today, the learning process at universities has shifted to using online learning systems (Nugroho, 2016, Adam & Suprpto, 2019). The development of technology rapidly, learning activities are not always carried out in the classroom, it can also be done outdoors by utilizing Ebook teaching materials (Wilyanti & Suryani, 2021). Ebook is one of the teaching materials in electronic form designed by using several applications that can assist in conveying and understanding learning material (Hadaya, 2018, Hardiyanto, 2020). Ebook have become popular teaching materials for several years due to the pandemic covid 19. It has caused several educational institutions to develop and use Ebook in the delivery of subject material.

Ebook have become a sophisticated technological innovation that is expected to develop to replace the use of printed books. Ebook are an interesting tool for most students in reading books (Jannah, 2017, Budiarti, 2017). Many benefits will be obtained from using Ebook in the learning process, one of the benefit of multimedia tools (such as audio, video, animation) that can attract students' attention (Haning Hasbiyati, 2017, Vassiliou & Rowley, 2008). Different with students who learn using printed books, the students who study using Ebook can increase their motivation to learn, improve their learning outcomes and develop their academic achievement.

According to Arifah Khairrani, (2019) who researched Ebook technology and its benefits in the world of education. The use of Ebook can increase interaction between educators and students in distance learning, and students are more interested in using e-books in learning. Ebook play an important role in the learning process because they have advantages and many benefits. Physically, the Ebook is small sizes digital data and they can be stored in data storage such as flash drives (Muswita, 2018). Ebook is not obsolete like printed books. The digital formats with an unchanged format.

Ebook is very practical because it is in the form of soft files that have been designed using technology. Ebook is interactive learning media in delivering information because they can display pictures, videos, animations, and musical instruments as well as other multimedia illustrations (Muswita, 2018, Hadaya, 2018). Then, the students do not have to be obliged to buy books and students do not carry heavy loads as usual with heavy load of books and many. By using Ebook, it makes easier the students directly. The students are easy to read subject matter anytime and anywhere, and can improve reading literacy, especially students in college, in supporting their academic achievement.

Reading literacy is the ability to understand information that is read and analyze critically, in order to obtain accurate and factual information. Reading literacy has a positive relationship to reading comprehension, it appears that the higher a person's reading literacy, the higher that person's reading comprehension (Umut Zan, 2020). And the lower one's reading literacy, the lower one's reading comprehension. culturing literacy must be done as early as possible because

introducing a literacy culture requires a long process and is carried out in several stages (Basri, 2012, Yanuarti & Sari, 2019). Each stage must be evaluated for its level of success. Literacy culture, especially reading interest, plays an important role in life because knowledge is actually generated through reading and writing activities. today, in the era of society 5.0, literacy is the key to improve the quality of Human Resources (HR). Only with a high literacy culture, a nation can exist in global competition, especially in the fields of science and technology (Techakosit & Nilsook, 2018).

The high or low reading interest of students is closely related to their ability to process information analytically, critically, and reflectively, which is currently known as HOTS (Higher Order Thinking Skill) (Yaşar, 2020, Umar Mansyur, 2020). Low reading interest results in low critical thinking skills. Efforts to grow a literacy culture cannot be separated from the world of education, because the development of students' insight and knowledge is obtained through reading and writing activities (Amsal et al., 2019, Yanuarti & Sari, 2019). By reading, students can get information easily and quickly. Therefore, reading culture should be used as an academic activity in schools and universities.

Reading literacy culture is an important skill that must be possessed by students, reading literacy can grow a culture of reading, writing, listening, speaking, analyzing information, and thinking critically (Anwar, 2020, Agustina, 2020). These skills are very much needed for students at era Society 5.0, because the learning process for college depends on passion, desire, and reading skills of students. The best reading literacy is very necessary for students to support and develop their academic competencies, reading literacy will improve students' critical thinking skills in analyzing problems in the learning process, especially in learning material (Rais et al., 2019, Petrus, 2020). In addition to understanding the subject matter presented, reading literacy skills are needed by students in choosing sources of information to communicate. Because almost student activities cannot be separated from information and communication ranging from social media, YouTube, newspapers and watching television, they require reading activities (Esti Swatika Sari, 2017).

At college, reading literacy is the main activity in academic progress (Hanum et al., 2020). High reading literacy for students will be able to develop the information they receive, To become information literate, a person must be able to recognize when information is needed and have the ability to find, evaluate, and use the information needed effectively. (Hastini et al., 2020, Jonner, 2008). The integration of ebook with reading literacy will be able to improve student learning outcomes and develop student skills, critical thinking skills, and the ability to utilize student communication technology. All activities in the learning process, especially for college students, require teaching materials that can be used at any time and reading literacy skills.

Regarding the use of ebook as learning materials in reading literacy activities for students in the Management Psychology course of the Educational Administration Study Program, Faculty of Education, Universitas Negeri Padang, the current dominant use of printed learning materials has not been effective in improving students' learning outcomes. This is evident from the average mid-semester exam score of 75.00 for students in 2021. Additionally, students' interest in reading and literacy remains low, and during the pandemic, many students have struggled to master the subject matter of the Management Psychology course.

Given the existing issues, there is a need for ebook learning materials to enhance students' learning outcomes in the Management Psychology course. The research problem formulation in this study is whether literacy-based ebook can improve students' learning outcomes in the Management Psychology course at the Educational Administration Study Program, Faculty of Education, Universitas Negeri Padang.

METHOD

The population of this study were undergraduate students of the Education Administration Program in Faculty of Education of Padang State University. Two classes were chosen randomly; one were chosen as the experimental group while the other was chosen as the control group. The participant inclusion criteria were students taking management psychology course and consented

to participate in this study. Samples were taken using random sampling technique as it gives equal chances for all members of the population to be chosen as the sample. The total number of reachable population are 76 students studying management psychology.

The research used an experimental method with a 2x2 factorial design. The two groups were divided into 2 classes, namely the control class and the experimental class (Sugiyono, 2014). The control class uses printed teaching materials, while the experimental class uses ebook. Both of teaching materials are applied to the management psychology course. The hypothesis to be tested is Ebook teaching materials with high and low student reading literacy variables, and the effect of the interaction between the two variables on the dependent variable, namely learning outcomes and student reading literacy skills, then the 2x2 type factorial experimental design was used in this study. The factorial design (2x2) used in the study can be seen in table 1.

Table 1. The Factorial Design (2x2)

Student Reading Literacy Skills	A1 (Ebook Teaching Materials)	A2 (Printed Teaching Materials)
B1 (low)	A1B1	A2B1
B2 (high)	A1B2	A2B2

Source: (Riduwan, 2011); (Suharsimi, 2014)

The data were collected by using tests, questionnaires, observation and documentation. The instrument was an evaluation question of 40 items in an objective form given to students of Educational Administration Study Program, Faculty of Education, Universitas Negeri Padang. The data analyses used in this study were: 1) prerequisite test in the form of normality test, 2) homogeneity test, 3) hypothesis test (Sugiyono, 2014).

FINDING AND DISCUSSION

Finding

The description of the research data on the reading literacy variable as a whole reveals the following information:

Table 2. Description of Student Reading Literacy Data

Statistic Description	Experimental		Control	
	Literacy	Outcome	Literacy	Outcomes
Total	4014.00	3113.33	3939.00	2726.67
Higher Score	148.00	96.67	126.00	93.33
Lower score	83.00	70.00	87.00	56.67
Mean	105.63	81.93	103.66	71.75
Median	101.50	80.00	104.00	70.00
Modus	100.00	76.67	99.00	66.67
Sd	15.07	8.26	10.65	9.10
Varian	227.00	68.25	113.37	82.72

Normality Test

Testing the normality was conducted using the Liliefors test technique. Results obtained that the L_{count} value in the experimental class and the control class is smaller than the L_{table} value. It was proven in table 3.

Table 3. The Summary of Normality Test Learning Outcomes (Liliefors)

Learning Outcomes	N	α	L_{Count}	L_{Table}	Normality
A1	38	0.05	-0.01	0.14	Normal
A2	38		0.05	0.14	Normal

Note: N = Respondent; α = Significant Level

Based on the table, the experimental class showed $L_{Count} < L_{Table}$ where $-0.01 < 0.14$, its mean that the data from respondents was normally. In the control class, the table showed that $L_{Count} < L_{Table}$ is $0.05 < 0.14$, in other word the data was normally.

The results indicate that both groups of respondents, both in the experimental and control classes, tend to exhibit normal behavior or responses that follow the predetermined distribution pattern. This is crucial in supporting further conclusions or interpretations of the experiment's outcomes. As such, the data from this experiment can be considered valid as both groups of respondents demonstrating normal behavioral characteristics, aligning with the assumptions required for experimental analysis. This interpretation provides a strong basis for drawing conclusions regarding the findings and objectives of the conducted experiment.

Homogeneity Test

The homogeneity test of the data used the Bartlett test with significance level of $= 0.05$, and certain. The criteria were $\chi^2_{Count} < \chi^2_{Table}$, the variance of the treatment group was homogeneous. The results of the homogeneity of variance test for the experimental class and the control class were presented in table 4.

Table 4. Experimental and Control Class Homogeneity Test Results

Sample	dk	1/dk	Si ²	Log Si ²	(dk) Log Si ²
Experimental Class	37	0.03	68.25	1.83	67.86
Control Class	37	0.03	82.72	1.92	70.95
Total	74	0.05			138.81
Total of Si ²	75.48				
Total of Log S ²	1.87				
B	138.96				
χ^2_{Count}	0.34				
χ^2_{Table}	3.84				

The results of the homogeneity test for the management psychology learning outcomes in the experimental class and control class, is χ^2_{count} of 0.34 and χ^2_{table} of 3.84. It concluded that $\chi^2_{Count} < \chi^2_{Table}$. It can be said that the data has homogeneity of variance.

Thus, it can be concluded that the data for the psychology management learning outcomes in the experimental and control classes satisfy the assumption of homogeneity of variances, indicating that the variance of data in both groups is proportional or uniform. This allows for the conduction of statistical analyses that require the assumption of homogeneity of variances without any bias resulting from differences in variances among the groups.

The results of the calculation of the homogeneity of variance test for the experimental class and control class with the high literacy were presented in table 5.

Table 5. The Results of Experimental and High Literacy Control Class Homogeneity Test

Sample	dk	1/dk	Si ²	Log Si ²	(dk) Log Si ²
Experimental Class	18	0.05	56.66	1.75	31.56
Control Class	18	0.05	71.99	1.85	33.43
Total	36	0.11			64.99
Total of Si ²	64.33				
Total of Log S ²	1.81				
B	65.10				
χ^2_{Count}	0.26				
χ^2_{Table}	3.84				

The table 5 above presents the results of comparing the learning outcomes in the experimental class and control class for management psychology, specifically focusing on students with high reading literacy. The calculated value of χ^2 (chi-square) for the comparison is 0.26, while the tabulated value of χ^2 at a certain significance level (usually 0.05) is 3.84.

Based on the comparison, it can be concluded that the χ^2 value obtained (0.26) is smaller than the tabulated χ^2 value (3.84). Therefore, the data is considered to have homogeneity of variance. This means that the variance of learning outcomes in both the experimental and control classes, among students with high reading literacy, is relatively similar or uniform.

The finding of homogeneity of variance is essential in statistical analyses, especially when conducting certain tests or comparisons that assume equal variances between groups. In this case, since the data satisfies the assumption of homogeneity of variance, it allows for the use of statistical tests that rely on this assumption, leading to more accurate and reliable conclusions in the study.

The results of the calculation of the homogeneity of variance test for the experimental class and control class with low literacy were presented in table 6.

Table 6. The Results of Experimental and Low Literacy Control Class Homogeneity Test

Sample	dk	1/dk	Si ²	Log Si ²	(dk) Log Si ²
Experimental Class	18	0.05	77.13	1.88	33.97
Control Class	18	0.05	79.27	1.89	34.18
Total	36	0.11			68.15
Total of Si ²	78.20				
Total of Log S ²	1.89				
B	68.15				
χ^2_{Count}	0.01				
χ^2_{Table}	3.84				

The table 6 above presents the results of comparing the learning outcomes in the experimental class and control class for management psychology, specifically focusing on students with low reading literacy. The calculated value of χ^2 (chi-square) for the comparison is 0.01, while the tabulated value of χ^2 at a certain significance level (usually 0.05) is 3.84.

Based on the comparison, it can be concluded that the calculated χ^2 value (0.01) is significantly smaller than the tabulated χ^2 value (3.84). Therefore, the data is considered to have homogeneity of variance. This indicates that the variance of learning outcomes in both the experimental and control classes, among students with low reading literacy, is relatively similar or uniform.

The finding of homogeneity of variance is of significant importance in statistical analysis. In this case, since the data satisfies the assumption of homogeneity of variance, statistical tests relying on this assumption can be used. This helps in producing more valid and reliable conclusions in the research.

Hypothesis Test

The hypothesis was tested by Analysis of Varians (Anova), and the results of the analysis can be seen in table 7.

Table 7. The Results of the fourth Hypothesis Testing Analysis

Varians source	JK	dk	RJK	F _{count}	F _{table}
Row (A)	1967.25	1	1967.25	27.60	3.98
Column (B)	426.316	1	426.32	5.98	3.98
Interaction (AB)	28.655	1	28.65	0.40	3.98
Cells (w)	5130.99	72	71.26		
Total	7553.22	75			

By observing the interaction table above, it can be seen that $F_{\text{count}} 0.40 < F_{\text{table}} 3.98$. meaning that there is an interaction between reading literacy and teaching materials on student learning outcomes in the Management Psychology course, Educational Administration Study Program, Faculty of Education, Padang State University. It was presented by the following profit plot below:

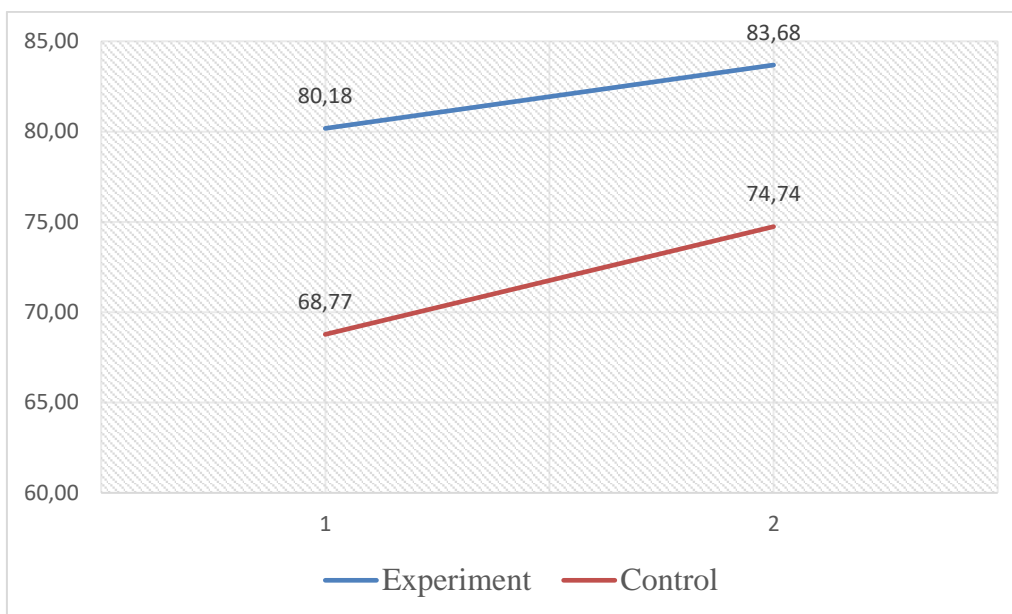


Figure 1. Profit Plot for Experiment and Control Class

The plot showed that students who have high reading literacy in the experimental class were higher than the student in the control class. Students who have low literacy in the experimental class were higher than the control class.

Discussion

This study aims to evaluate the effectiveness of using reading literacy-based e-books as learning materials in order to improve management psychology course learning outcome for students enrolled in Education Administration program. The results show that utilizing reading literacy-based e-books positively affects students' learning outcome.

Furthermore, this study shows that the effectiveness of using reading literacy-based e-books does not only rely on technological usage factor, but it is also related to students' reading literacy level. Students with high literacy level and utilized e-books achieved better learning outcomes than those who have high literacy level but use printed learning materials. Similarly, students with low literacy level and used e-book learning materials achieved better learning outcomes than those with low literacy level and used printed learning materials. This shows that using reading literacy-based e-books is highly beneficial for students regardless of their literacy level.

The use of reading literacy-based e-books in learning Management Psychology offers several practical implications. Firstly, e-books can improve learning accessibility and flexibility which allows students to study independently and flexibly on their own electronic devices. Moreover, e-books also offer interactive and engaging learning experience through the use of multimedia, pictures, and graphics that help students understand Management Psychology concepts. Educators can utilize these features to encourage students' involvement and active participation in class.

However, this study also has several limitations. Firstly, the sample of this study is limited to one university, thus generalization needs to be done with caution. Additionally, this study only used one type of reading literacy-based e-book, thus other variations in type and content require further analysis. Furthermore, other factors such as learning styles or motivations may also affect the use of e-book in learning, and they need to be considered in future studies.

There are a number of theories that support the results of this study, they are 1) Theory of Cognitive and Emotional Effects. This theory states that e-book formats and features can affect readers' cognitive and emotional processes. For instance, interactive features in e-books such as animations or audio can boost readers' involvement and understanding. This theory also states

that various visual and sensory processes in e-books can affect readers' perception and content understanding (Adam & Suprpto, 2019; Muswita et al., 2018; Raihan et al., 2018). 2) Sociocultural Theory: the sociocultural theory developed by Lev Vygotsky emphasizes the role of social interaction in learning process and cognitive development. In the context of e-book-based reading literacy, this theory highlights the importance of social interactions in supporting reading comprehension. Through online discussion forums, communities of readers are able to exchange ideas, challenge their understanding, and expand their knowledge (Dinata, 2021; Guldin, 2022; Wuyckens et al., 2022). 3) Reliability of Digital Resources Theory: this theory is concerned with evaluating the quality and reliability of digital resources, such as e-books. In the context of e-book-based reading literacy, this theory guides readers to critically evaluate the reliability, authenticity, and credibility of digital resources. This involves understanding the authors, publishers, and editorial process of the e-books to ensure the integrity and reliability of the information obtained (McNelly & Harvey, 2021; Mendoza, 2010). 4) Theory of Motivation and Reward: this theory highlights the role of motivation and rewards in increasing interest and pleasure in reading e-books. Factors such as choosing interesting reading materials, suitable challenges, and intrinsic and extrinsic rewards may motivate students to continue reading and increase their literacy levels (Iryanto, 2021; Scheibe & Rogow, 2012, Hanifah, 2021). In the context of e-book, this theory shows that using interactive features, games, or rewards in electronic reading applications can enhance readers' motivation and involvement.

Research by Haning Hasbiyati, (2017). based on the results of the study, it was found that the implementation of the epub extension could increase interest in learning very well by 88.61% and could improve student learning outcomes with high criteria in the form of a gain score of 0.703 in science learning at junior high school. Research by Putri Rachmadyanti, (2020) studied about an Ebook for the Social Sciences Basic Concepts course which is compiled based on the RPS and becomes material that can be used in the UNESA e-learning system. Ebook Mobile learning-based can help students visualize conceptual knowledge by using animations and videos presented in the Ebook (Wilyanti & Suryani, 2021)

Overall, this study provides important contribution to understand the effectiveness of using reading literacy-based e-books to improve learning outcome in Management Psychology course. The results show that using reading literacy-based e-books can effectively increase students' understanding and knowledge, especially for those with various literacy levels. The practical implication of this study is that utilizing learning materials in the form of reading literacy-based e-books can be an effective alternative way to improving learning in Management Psychology. This study is expected to become the basis for the development of innovative and technology-oriented learning strategies that can improve the quality of learning in the Management Psychology field.

CONCLUSION

This study aims to improve the students' learning outcomes enrolled in Management Psychology course at Education Administration Program of the Faculty of Education. Using quasi-experimental method, this study compared the use of reading literacy-based e-books learning materials and those that are printed conventionally. The results show that utilizing reading literacy-based e-books can effectively improve students' learning outcomes.

The results also show that the experimental group that used e-books were able to achieve the highest scores with an average of 96.6, while those in the control group achieved an average score of 93.3. There is a significant difference between the two groups with the experimental group producing better results. The average learning outcomes for students in the experimental and control group was 81.93 and 71.75. respectively.

The t-test results for the two groups show that the differences are significant, as it resulted in a t count value of 5.11 which is higher than the t table value of 1.66. This emphasizes that students who used e-books achieve better learning outcome than those who used printed materials. Additionally, it also shows that using reading literacy-based e-books provides more benefits for

students with high level of reading literacy; however, it also provides a positive impact to students with low level of reading literacy.

The practical implication of this study is that utilizing reading literacy-based e-books can be an effective alternative material in learning Management Psychology. Educators can utilize e-books to create interactive learning experiences, combine various medias, and increase students' involvement. It is also necessary to pay attention to students' reading literacy levels in order to optimize the use of e-books.

Although this study has provided several important contributions in understanding the effectiveness of using reading literacy-based e-books, it still has several limitations. Firstly, this study was only conducted on Education Administration students from one university, thus generalization needs to be done with caution. Additionally, this study only used one type of reading literacy-based e-book, thus other variations in type and content require further analysis.

Future studies are recommended to include bigger samples and consider other factors such as learning styles and motivations, as well as explore more variations in e-book types and contents. Future studies may also focus on optimal teaching strategies that can maximize the benefits of utilizing e-books in learning Management Psychology. Overall, this study provides important contributions in understanding the effectiveness of using reading literacy-based e-books to improve learning outcome for Management Psychology course. The results can become the basis in developing innovative and technology-oriented learning strategies that can improve learning in Management Psychology field.

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REFERENCES

- Adam, A. S., & Suprpto, N. (2019). One-stop physics e-book package development for senior high school learning media. *International Journal of Emerging Technologies in Learning (IJET)*, 14(19), 150. <https://doi.org/10.3991/ijet.v14i19.10761>.
- Agustina, R., Ardiana, M., & Pertiwi, D. A. (2020). Student literacy level in accounting fields and types of accountant profession. *Jurnal Economic Resources*, 4(1), 167–176. <https://doi.org/10.33096/jer.v4i1>.
- Amsal, M. F., Amilia, W., & Supendra, D. (2019). Analysing teachers' digital literacy skills in the learning situation. *International Conference on Education Technology (ICoET 2019)*, 372(ICoET), 1–3.
- Anwar, K., Shintasiwi, F. A., & Mulianingsih, F. (2020). Teacher optimization in utilizing media literacy for social science learning in semarang. *International Journal of Emerging Technologies in Learning*, 15(7), 141–148. <https://doi.org/10.3991/IJET.V15I07.13227>.
- Arifah Khairrani. (2019). *E-Book sebagai media pembelajaran di masa depan*. 5–6. <https://core.ac.uk/reader/199666880>.
- Basri, S. (2012). Prestasi akademik ditinjau dari kemampuan literasi media. *Jurnal Dakwah*, XIII(1), 15–38. <http://ejournal.uin-suka.ac.id/dakwah/jurnaldakwah/article/view/317>.
- Budiarti, A., Handhika, J., & Kartikawati, S. (2017). Pengaruh model discovery learning dengan pendekatan scientific berbasis e-book pada materi rangkaian induktor terhadap hasil belajar siswa. *JUPITER (Jurnal Pendidikan Teknik Elektro)*, 2(September), 21–28.
- Dinata, K. B. (2021). Analisis kemampuan literasi digital mahasiswa. *Edukasi: Jurnal Pendidikan*, 19(1), 105. <https://doi.org/10.31571/edukasi.v19i1.2499>.
- Esti Swatika Sari, S. P. (2017). Budaya literasi di kalangan mahasiswa Fakultas Bahasa Seni Universitas Negeri Yogyakarta. *Fakultas Bahasa Dan Seni Universitas Negeri Yogyakarta*, 16(1), 105–113.
- Guldin, R. (2022). Book review: Elementary schoolers, meet media literacy: How teachers can bring economics, media, and marketing to life. *Journal of Media Literacy Education*, 14(1), 183–185. <https://doi.org/10.23860/jmle-2022-14-1-13>.

- Hadaya, A., Asrowi, A., & Sunardi, S. (2018). Perception of Junior High School students about the use of e-books as learning sources. *Journal of Educational Science and Technology (EST)*, 4(1), 55–61. <https://doi.org/10.26858/est.v4i1.5219>.
- Hanifah, M. (2021). *Pengembangan Electronic Book Berbasis Stem*. Universitas Islam Negeri Syarif Hidayatullah Jakarta.
- Haning Hasbiyati, L. K. (2017). Penerapan media e-book berekstensi epub untuk meningkatkan minat dan hasil belajar siswa SMP. *Jurnal Pena Sains*, 4(1), 0–5.
- Hanum, F., Harahap, N. J., Hsb, E. R., Nirmala, M., Hasibuan, S., Labuhanbatu, U., Tinggi, P., & Globalisasi, E. (2020). Pembelajaran mata kuliah Bahasa Indonesia berwawasan literasi di perguruan tinggi dalam menghadapi era globalisasi. *Jurnal Education and Development*, 8(3), 33–36.
- Hardiyanto, A. (2020). Developing e-book for pre-intermediate grammar in EFL classroom. *Journal of English Education and Applied Linguistics*, 9(2), 129–142.
- Harjono, A., Gunawan, G., Adawiyah, R., & Herayanti, L. (2020). An interactive e-book for physics to improve students' conceptual mastery. *International Journal of Emerging Technologies in Learning*, 15(5), 40–49. <https://doi.org/10.3991/IJET.V15I05.10967>.
- Hastini, L. Y., Fahmi, R., & Lukito, H. (2020). Apakah pembelajaran menggunakan teknologi dapat meningkatkan literasi manusia pada generasi Z di Indonesia? *Jurnal Manajemen Informatika (JAMIKA)*, 10(1), 12–28. <https://doi.org/10.34010/jamika.v10i1.2678>.
- Idrus, R. (2021). *Pengaruh Penggunaan E-Book Terhadap Hasil Belajar Siswa Pada Mata Pelajaran IPA Di Kelas VII SMP N 1 Sungguminasa Kabupaten Gowa*. Universitas Muhammadiyah Makassar.
- Iryanto, N. D. (2021). Hubungan media internet, membaca, dan menulis dalam literasi digital mahasiswa. *Jurnal Basicedu*, 5(5), 3829–3840.
- Imam Suyitno, Kusubakti Andayani, Peni Dyah Anggari, T. K. (2021). Foreign learners' perception, satisfaction, and learning outcome in learning Indonesian language. *Cakrawala Pendidikan Jurnal Ilmiah Pendidikan*, 40(1), 133–146. <https://doi.org/10.21831/cp.v40i1.32311>.
- Jannah, N., Fadiawati, N., & Tania, L. (2017). Pengembangan e-book interaktif berbasis fenomena kehidupan sehari-hari tentang pemisahan campuran. *Jurnal Pendidikan Dan Pembelajaran Kimia*, 6(1), 186–198.
- Jonner, H. (2008). Urgensi literasi informasi dalam kurikulum berbasis kompetensi di perguruan tinggi Jonner Hasugian program studi Ilmu Perpustakaan. *Pustaka: Jurnal Studi Perpustakaan Dan Informasi*, 4(2), 34–44.
- Komara, E. (2018). Penguatan pendidikan karakter dan pembelajaran abad 21. *SIPATAHOENAN: South-East Asian Journal for Youth, Sports & Health Education*, 4(1), 17–26. www.journals.mindamas.com/index.php/sipatahoenan
- Laurentius Saptono, Budi Eko Soetjipto, Wahjoedi, H. W. (2020). Role-playing model: Is it effective to improve students' accounting learning motivation and learning achievements? *Cakrawala Pendidikan Jurnal Ilmiah Pendidikan*, 39(1), 133–143. <https://doi.org/10.21831/cp.v39i1.24781>.
- Machmud, A., & Alfaridzi, I. (2022). High school learning outcomes: The effect of self-regulation, resilience, and family environment. *Cakrawala Pendidikan Jurnal Ilmiah Pendidikan*, 41(3), 764–778.
- McNelly, T. A., & Harvey, J. (2021). Media literacy instruction in today's classrooms: A study of teachers' knowledge, confidence, and integration. *Journal of Media Literacy Education*, 13(1), 108–130. <https://doi.org/10.23860/JMLE-2021-13-1-10>.
- Mendoza, K. (2010). Critically read and create media (2009) Professional resource: *Journal of Media Literacy Education*, 2, 150–152.
- Muswita, Utomo, A. B., Yelianti, U., & Wicaksana, E. J. (2018). Pengembangan e-book berbasis mobile learning pada mata kuliah Struktur Tumbuhan. *Pendidikan Biologi*, 11, 93–104.
- Nugroho, L. E. (2016). E-book as a platform for exploratory learning interactions. *International Journal of Emerging Technologies in Learning*, 11(1), 62–65. <https://doi.org/10.3991/ijet.v11i1.5011>.
- Petrus, I., Indrawati, S., Ernalida, E., & Eryansyah. (2020). Pre-service EFL teachers' digital literacy and factors affecting digital literacy development. *IRJE Indonesian Research Journal in Education*, 4(2), 402–412. <https://online-journal.unja.ac.id/irje/article/view/10892>.

- Putri, E., & Dj, R. (2013). Efektifitas penerapan e-book sebagai sumber belajar mandiri dalam pembelajaran Biologi. *Prosiding Semirata FMIPA Universitas Lampung*, 243–250.
- Putri Rachmadyanti, G. G. (2020). Pengembangan ebook untuk mata kuliah Konsep Dasar IPS Lanjut bagi mahasiswa PGSD UNESA. *DWIJA CENDEKIA Jurnal Riset Pedagogik*, 4(1), 83–93.
- 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.
- Rais, M., Fadillah, R., & Rivai, A. A. (2019). The effectiveness of blended learning in improving media literacy on different self-regulated learning. *Journal of Educational Science and Technology (EST)*, 5(3), 277–285. <https://doi.org/10.26858/est.v5i3.10873>
- Riduwan. (2011). *Belajar Mudah Penelitian Untuk Guru, Karyawan dan Peneliti Pemula* (2nd ed.). Alfabeta.
- Scheibe, C., & Rogow, F. (2012). The teacher's guide to media literacy. *Journal of Media Literacy Education*, 6(2), 96–98.
- Sugiyono. (2014). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.
- Suharsimi, A. (2014). *Prosedur Penelitian: Suatu Pendekatan Praktek: a* (2nd ed.). Rineka Cipta.
- Techakosit, S., & Nilsook, P. (2018). The development of STEM literacy using the learning process of scientific imagineering through AR. *International Journal of Emerging Technologies in Learning*, 13(1), 230–238. <https://doi.org/10.3991/ijet.v13i01.7664>.
- Umar Mansyur. (2020). Minat baca mahasiswa: Potret pengembangan budaya literasi di Universitas Muslim Indonesia. *Jurnal Literasi*, 4.
- Umuz Zan, B., Çolaklar, H., Altay, A., & Taşkın, N. (2020). A study on digital literacy skills of faculty of letters students: Use of university library. *International Journal of Emerging Technologies in Learning*, 16(1), 152–171. <https://doi.org/10.3991/IJET.V16I01.16567>.
- Vassiliou, M., & Rowley, J. (2008). Progressing the definition of “e-book.” *Library Hi Tech*, 26(3), 355–368. <https://doi.org/10.1108/07378830810903292>.
- Wilyanti, L. S., & Suryani, I. (2021). Pengembangan e-book mata kuliah drama sebagai media pembelajaran mandiri di masa pandemi. *Jurnal Ilmiah Universitas Batanghari Jambi*, 21(1), 156–162. <https://doi.org/10.33087/jiubj.v21i1.1136>.
- Wuyckens, G., Landry, N., & Fastrez, P. (2022). Untangling media literacy, information literacy, and digital literacy: A systematic meta-review of core concepts in media education. *Journal of Media Literacy Education*, 14(1), 168–182. <https://doi.org/10.23860/JMLE-2022-14-1-12>.
- Yanuarti, E., & Sari, D. P. (2019). Peran dosen dalam memanfaatkan media sosial sebagai sarana literasi pembelajaran mahasiswa. *Journal of Education and Instruction (JOEAI)*, 2(2), 127–138. <https://doi.org/10.31539/joeai.v2i2.892>.
- Yaşar, M. D. (2020). Chemistry teachers' assessment literacy. *Journal of Baltic Science Education*, 19(1), 76–90. <https://doi.org/10.33225/jbse/20.19.76>.
- Yusmar, F., Subchan, W., & Prihatin, J. (2018). The effectivity of interactive e-book based on science process skills using Android application for excretion system material on students science process skills. *International Journal of Advanced Engineering Research and Science*, 5(7), 5–8. <https://doi.org/10.22161/ijaers.5.7.2>.
- Zahara, N., Djufri, D., & Sarong, M. A. (2017). Optimalisasi pembelajaran dengan e-book dan media pembelajaran berbasis multimedia untuk meningkatkan hasil belajar siswa kelas X SMA pada materi Dunia Tumbuhan. *BIOTIK: Jurnal Ilmiah Biologi Teknologi Dan Kependidikan*, 2(2), 105. <https://doi.org/10.22373/biotik.v2i2.243>.