Learning Design on Social Studies Through Digital Book in Senior High School

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Abstract—Pedagogic competence is a skill that teachers must have in mastering learning methods in delivering subject matter. This study aims to improve the pedagogical competence of social studies teachers through android-based digital books. We encourage teachers and students to use digital books as easy-to-use learning materials. The digital book provides audio, images, and videos to increase students interest in social studies learning. The feasibility test results show that the digital book social studies are declared fit for use following the technology acceptance model. The evaluation results showed an increase in student social studies learning outcomes for the good category from 12.5% pretest to 47.5% at posttest. The assessment of media experts and learning materials shows that digital books are very suitable for the social studies learning process in senior high school.

1 Introduction

Learning describes a dynamic process because learning behaviour is manifested in that process and not silent or passive[1]. Therefore, the dynamic process in lessons needs to be integrated with technology as a learning media. The development of technology provides teachers opportunities to develop their pedagogical competencies in increasing student understanding[2], [3]. The ever-evolving education system requires teaching staff to have more adequate abilities and skills. Therefore, the learning media used must also continue to innovate. According to Kucirkova and Flewitt [4], one of the learning media used in the learning process is digital books. That is because digital books can increase the ability and confidence of students to enjoy and access independently. Research of Kirby and Anwar [5] explained the benefits of e-books for readers: audio, video, and simulation features that will facilitate a deeper understanding of the subject matter.

On the other hand, a digital book in the learning process is carried out to build cultural knowledge and awareness for students diversity in social studies [6]. Education is adapted to the times that exist, and social studies teachers have an important role in education[7]. The teacher is a profession that cannot be replaced by technology, but

teachers must be able to deal with changes in technology[8]. Teachers must be able to change themselves and become agents of this change because education is the turmoil of national change, and teachers must be ready to endure the challenges that must be faced, one of which is the challenges of the 21st century in terms of learning [9]. Digital learning is one of the challenges that must be anticipated and faced in education. Teachers need to have a far more progressive vision than their students to mastery technology[10].

According to Ehret, Hollett, dan Jocius [11], digital books can improve students reading literacy culture. Therefore, referring to the subject-based learning management system, the teacher should match the scientific background and the subject being fostered. So, they can explore technology-based learning media[12]. In organizing learning, teachers use technology to provide learning materials and administer using information technology[13]. In addition, teachers must also familiarize children with interacting with using technology. That is an effort to improve the quality of education in social studies. Improving the quality of learning can be achieved if the learning process has achieved the desired goals. One of the goals is to increase students understanding of learning material[14]. Besides that, student learning outcomes are also a benchmark in learning outcomes.

In the social studies learning process, there is a continuous interaction between learning components and learning resources. The learning resource provides students with information in various media forms regarding learning materials in images, videos, and software formats[15]. According to Barzano, et al.[16] social studies are one of the responsive course that can be done through digital tools. Moreover, social studies can enhance learning in all scientific and academic contexts [17], [18]. Based on Jackson and Nesterova [19], research shows that one alternative social studies learning can be done through digital media. Therefore, social studies teacher needs to design and create an education with tehcnology[20]. The development of touchscreen-based tablet computers increasingly adds to the interactive moving images presented in digital books. It was made interactively presenting text decorated with static images and decorated with various displays of moving images that can be manipulated[21]. Based on Haghanikar and Hooper research[22], it was explained that teacher education preservice could develop digital books in the United States. On the other hand, digital books are precious for the learning process in universities[23]. Kadry and Ghazal [26] show that the teacher is annoyed with students using smartphones. Therefore, to encourage students in the social studies learning process and improve teacher pedagogical competence in managing student learning, researchers developed a digital book-based learning design.

2 Literature Review

2.1 Benefits of digital books

The digital book is a form presentation of book learning media in the virtual form[24]. According to Park, Chang, and Park [25], adopting digital technology through digital books encourages student motivation. Therefore, teachers use digital

books to make the learning atmosphere interesting and conducive [26]. Hull and Chaparro [27] explained that a digital book allows users to read the flipbook, an interactive three-dimensional book with pages that 'flip' or turn on the screen. Students can also complete assignments faster using the format of the collection schedule than the website format[28]. Based on Kucirkova, Littleton, and Cremin [6], some of the advantages that make digital books more attractive to teachers than conventional textbooks are because they are easy to obtain. Teachers and students only need to download on the online learning website schools [29]. Also, the content conforms to the curriculum, does not recognize expiration, and the language is easy to understand.

The characteristics of the social studies subject are different from other monolithic disciplines[30]. Therefore, to embrace multicultural ideas more actively, it is necessary to develop learning media through digital books [31],[32]. Referring to Kong et al.[33] preservice teachers needed learning development as a systematic way to identify and evaluate a set of learning materials and strategies to achieve specific goals. With attractive learning media, students are expected to be able to accept learning easily and efficiently. Using digital books will make it easier for preservice teachers to deliver material and students who receive learning[34] because it looks very attractive and is completely packed. On the other side, Strouse, Newlan, and Mourlam [35] explained that print media is more educational than digital books for student learning. However, students often choose to read digital books instead of printed books. Besides that, Duche and Bourgeois [36] show the advantages of digital books, making it easier for students to interact with books and increase their understanding of culture.

2.2 Model technology acceptance on digital books in social studies

Social studies are the relationship between humans and society with all their social life aspects [37]. Social studies education emphasizes the growth of civic values, state ideological morals and religion, the content and method of thinking of social scientists, and reflection inquiry[30]. Therefore, the social studies learning process requires media to introduce children to their environment, society, human relationships, and human-environment relations[31]. Digital media is an alternative in influencing the learning process and outcomes[38]. Digital books are a form of the metamorphosis of conventional books. Like living species, the media evolve towards a higher survival in an ever-changing environment[10]. So, we use the technology acceptance model theory to analyze the attitudes of using information technology in senior high school students in the social studies learning process. The Technology Acceptance Model (T.A.M.) has become a basic model in understanding individual decisions to use technology[39]. According to Folkinshteyn and Lennon [40], T.A.M. asserts that perceived usefulness (P.U.) and perceived ease of use (P.E.O.U.) are the two main things that ultimately lead to the actual use of information technology.

3 Methodology

To develop digital book products, we use a mixed-method[41]. This research uses the A.D.D.I.E. (Analysis, Design, Development, Implementation, Evaluation) model to develop a social learning design through a digital book[42]. New learning methods need to be carried out at the analysis stage to determine its feasibility. In the design stage, researchers design learning activities starting from learning objectives, designing learning scenarios, learning tools, learning materials and learning outcome evaluation tools. The tool used to support product development at the design stage is the Articulate Storyline software[43]. The materials used for the digital book content are supported using Adobe Photoshop, CorelDRAW, Video Maker, images from www.freepik.com, and back sound. In the development stage, the conceptual framework is realized into a product that is ready to be implemented, namely the Digital Book for high school students. The material used in the digital book is a religion-based multicultural education model. At the development stage, the product is validated by material experts and media experts. After being developed, researchers implemented a digital book product for high school students and teachers. The method that has been developed is implemented in real situations, namely in grade 2 of senior high school in the subject of social studies. During implementation, the design model that has been developed is applied to the actual conditions. The material is delivered according to the new models being developed. After the application of the method, an initial evaluation is carried out to provide feedback on the application of the next model.

This study was conducted in collaboration with two high schools in Jakarta, Indonesia. The population in this study was 1525 students. This study used a purposive sampling technique so that the selected sample was adjusted to the following criteria: (1) high school students of class 2 majoring in social studies; (2) have a smartphone; and (3) has a laptop/tab. Of the 1,525 students, only 200 students meet these criteria. This research was conducted from June 2019 to September 2020.

3.1 Data collection

In collecting data and instruments, researchers use several ways to analyze the effectiveness of learning design in social studies through a digital book, as follows:

1. Interviews were conducted to identify which learning media are often used and which will be developed. The analysis process is carried out by answering the following questions: (1) whether the new model can solve the learning problems faced, (2) whether the new model has the support of facilities to be applied; (3) whether the lecturer or teacher can apply the new learning model. Interviews were conducted with ten students who were selected from 200 samples. Interviews were conducted as research supporting data.
2. The data collection technique was used by distributing a questionnaire to assess the digital-book quality by media and material expert judgment. The questionnaire assessment uses a 4-1 Likert scale [44] to assess its quality, good, enough, and less. Table 1 shows the digital instrument grid for.

Table 1. Indicator of Media and Material Expert Judgment

No	Aspect	Indicator
1	Media	Technical Quality
		Usability
		Textual and Visual Media Elements
		Interactivity
2	Pedagogy	Learning
		Standard content
		User Interests

At the implementation stage, the researcher used a distributing a questionnaire to assess the digital-book quality by students using the Technology Acceptance Model (T.A.M.) instrument as follows[40]:

Table 2. Instrumen of T.A.M. for Student

No	Aspect	Indicator
1	Perceived usefulness	• Improves learning performance • Increases productivity in learning • Enhances effectiveness • The system is useful
2	Perceived ease of use	• Clear and understandable • It does not require much mental effort • Easy to use • Easy to get the system
3	Attitude toward using	• An interest in using a digital book
4	Behavioural intention	• A person desire to perform a certain behaviour.
5	Actual technology usage	• Individual perception of his or her ability to use technology in task fulfilment

3.2 Data analysis

The following formula obtains the total score in tables 1 and 2:

$$The\ Average\ Score\ = \frac{Total\ Score}{number\ of\ items}$$

Table 3. Score Indicator

No	Score	Categories
1	4,21 – 5,00	Highly Feasible
2	3,41 – 4,20	Feasible
3	2,61 – 3,40	Moderately Feasible
4	1,81 – 2,60	Less Feasible
5	0 – 1,80	Unfeasible

In the evaluation process, researchers used posttest and pretest on 200 students to see the effectiveness of using digital books in social studies. The learning outcome test

is the accumulation of assignment scores carried out when using worksheets, and the final test aims to measure students achievement after studying the material of the religion-based multicultural education model. The results of the calculation of the mean obtained will show the conclusions of student learning outcomes which are categorized as follows:

Table 4. Categories of Student Learning Outcomes

Score	Categories
80 – 100	Excellent
66 – 79	Good
56 – 65	Fair
40 – 55	Poor
0 – 39	Very Poor

4 Results and Discussion

4.1 Learning design of digital books

Providing information to students about the relationships between a lesson material that will be provided with past teaching materials or describing its future use for students. On the other hand, students' interest in learning, especially in social studies, can be fostered by utilizing information and communication technology in guided learning. Based on the results of interviews conducted with ten students in senior high school students, it shows that:

1. A new learning model using technology can overcome learning. Although sometimes, I find it difficult to use it (RP-1, 2019). In my opinion, the learning models currently used are not very effective. Because students are only directed to read books and then work on problems on student worksheets. (RP-2, 2020). I think the use of new learning models can make it easier for students to understand the material well. (RP-3, 2020).
2. The new learning model introduced by the researcher made me interested in trying it. Most importantly, the media is easy for us to use via smartphones (RP-4, 2020). With the new learning model, good internet support is needed; otherwise, the learning media will not function properly. (RP-5, 2020).

The interview data results (1) and (2) show that students are open to new learning models. They also feel that the learning model using smartphone-based technology can make it easier to understand the material. Based on the interview results, the researcher identified the students' needs in learning social studies. Then, the researcher designed a digital book through Articulate Storyline software.
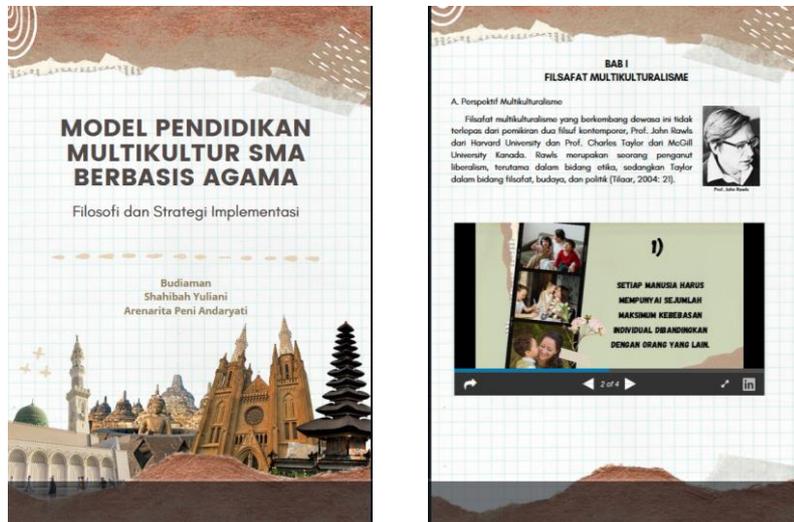
Fig. 1. Digital Book Cover

Fig. 2. Digital Book Video

Based on **Fig. 1** digital book designed by researchers using images and audio to attract students' interest in learning. In **Fig. 2**, students not only focus on writing but also on impressions on social studies material, but the digital book also provides video as a learning medium. The social studies digital book also provides information related to multicultural material and its implementation in several schools. Students are directed

to analyze videos that have been provided in the digital book. The digital book can also be accessed via a smartphone. So that students can use it anywhere and anytime.

4.2 Feasibility test on digital books

The validation test was carried out by expert judgment with the following results:

Table 5. The Validation of Media Expert Judgment

Aspect	Indicator	Score	Categories
Media	Technical Quality	4,20	Feasible
	Usability	4,21	Highly Feasible
	Textual and Visual Media Elements	3,50	Feasible
	Interactivity	4,00	Feasible
	The Average	3,97	Feasible

Table 6. The Validation of Material Expert Judgment

Aspect	Indicator	Score	Categories
Pedagogy	Learning	4,20	Feasible
	Standard content	4,00	Feasible
	User Interests	4,21	Highly Feasible
	The Average	4,14	Feasible

Based on **tables 5** and **6**, the results of the validation from the media and material experts show that digital social book studies are declared "feasible" to be used as learning media. So that pedagogically the digital book can be a tool for educational interaction between educators and students in the learning process. In the digital book, we provide information about the material in written, image, audio and video. The teacher directs students to read their respective e-mails and download the digital book[4]. Then came the digital book model of religion-based high school multicultural education. This digital book aims to improve the ability of teachers to manage student learning. We also conducted a feasibility test using the Technology Acceptance Model (T.A.M.) as follows:

Table 7. Feasibility of Digital Book

Indicator	Score	Categories
Perceived usefulness	4,00	Feasible
Perceived ease of use	4,30	Highly Feasible
Attitude toward using	4,21	Feasible
Behavioural intention	4,00	Feasible
Actual technology usage	4,00	Feasible
The Average	4,10	Feasible

Table 7 shows that digital book social studies are declared "feasible". In T.A.M., it can be said that perceived benefits reflect beliefs or expectations about the results of the product being implemented. In other words, digital books are an important factor

that influences the perception of the benefits of technology[26]. Although several previous studies have carried out learning through e-books, this research shows the awareness of using digital books in social studies[5]. In addition, to be able to teach well, the teacher must master the theory and practice of logic well, such as understanding the character of students, being able to explain the subject matter well, being able to provide an evaluation of what has been taught, also developing the potential possessed by students. Explaining material not only through lectures but also using media can provide positive attitudes to students.

4.3 Evaluation of digital books

After implementing the implementation, the researcher conducted a pretest and posttest and evaluated the digital books use.

Table 8. Field Test Results

Score Interval	Categories	Pretest		Post-Test	
		Frequency	*Percentage*	*Frequency*	*Percentage*
80-100	Excellent	0	-	38	19%
66-79	Good	25	12.5%	95	47.5%
56-65	Fair	55	27.5%	30	15%
40-55	Poor	85	42.5%	30	15%
0-39	Very Poor	35	17.5%	7	3.5%
Total		200	100%	200	100%

The percentage of pretest and posttest results in table 8 shows a very significant difference. The data are shown in the percentage of inversely proportional results. The highest percentage is in the poor category (40-55), but it shows the highest percentage ratio in the good category (56-65) of 47.5% at the posttest. In the poor category, accompanied by a percentage in the very good category (80-100), an increase in the posttest was 19%. The study indicates that new media do not emerge spontaneously and independently; they emerge gradually from the older media metamorphosis[23]. Before the advent of digital books, the reference source used was textbooks which later developed into electronic books (e-books). However, this study provides a picture inversely related to Spence [45] that not all students like access to e-books. They also use print media to find scientific resources. In reality, students are more interested in using digital media, especially digital books, in the learning process[46]. Besides that, this digital book also provides experiences that can support students to read and evaluate material. The material conveyed is not only through writing but also video, pictures and audio. So that with behavioural intention, students feel positive about the learning reference sources used[36]. With digital books in the learning process, it can make it easier for teachers to convey material. For students, the digital book can make it easier to understand learning material and supports national education goals. However, digital books presence plays an important and strategic role in several science fields, including social studies[23].

Digital books can also help increase student motivation and participation in classroom learning activities. Although social studies emphasize aspects of life systems in society, the learning process tends to be more theoretical. Therefore, teachers can apply various approaches, strategies, methods, and learning techniques that educate creatively[47]. It is undeniable that digital books are an alternative for teachers and students in arranging learning materials correctly according to the chosen approach. Perceived ease of use is one of the main variables in determining intention to use digital books and is supported by many empirical studies. The context of the perceived ease of use of the digital-book can be seen through the results of due diligence on students[48], [49]. The study shows that digital books, as a new learning medium for social studies, are easy to use through smartphones, computers and laptops. The advantage of using digital books is that they can be accessed online and offline. Therefore, these digital books are useful for students to do independent learning.

5   Conclusion

The development of technology brings many changes to a learning process from conventional to modern. The use of innovative learning media can improve teacher pedagogical competence, especially in social studies learning. Therefore, researchers developed a digital book as a transformation from an e-book that can make it easier for teachers and students to carry out social studies learning activities. This research is expected to bridge teachers as teaching staff who experience innovative learning obstacles but are constrained by facilities. Besides that, the research shows digital books' success in increasing student motivation in social studies. Finally, our results are consistent with previous research on digital books as a learning medium that can improve student learning outcomes. So that as educators, we must learn to see and be creative with new approaches that students in the digital era can apply.

6   References

[1] S. Li, H. Du, W. Xing, J. Zheng, G. Chen, and C. Xie, "Examining temporal dynamics of self-regulated learning behaviors in S.T.E.M. learning: A network approach," *Comput. Educ.*, vol. 158, no. July, p. 103987, 2020. https://doi.org/10.1016/j.compedu.2020.103987

[2] O. Adepoju and N. Nwulu, "Engineering students innovation competence: A comparative analysis of Nigeria and South Africa," *Int. J. Eng. Pedagog.*, vol. 10, no. 6, pp. 147–155, 2021. https://doi.org/10.3991/ijep.v10i6.14695

[3] S. Riahi and A. Riahi, "The pedagogy of higher education: How to evaluate the quality of training in Morocco to improve it," *Int. J. Eng. Pedagog.*, vol. 8, no. 1, pp. 92–108, 2018. https://doi.org/10.3991/ijep.v8i1.7984

[4] N. Kucirkova and R. Flewitt, "Understanding parents' conflicting beliefs about children's digital book reading," *J. Early Child. Lit.*, no. 4036, 2020. https://doi.org/10.1177/1468798420930361

[5] K. Kirby and M. N. Anwar, "An application of activity theory to the 'problem of e-books,'" *Heliyon*, vol. 6, no. 9, p. e04982, 2020. https://doi.org/10.1016/j.heliyon.2020.e04982

[6] N. Kucirkova, K. Littleton, and T. Cremin, "Young children's reading for pleasure with digital books: six key facets of engagement," *Cambridge J. Educ.*, vol. 47, no. 1, pp. 67–84, 2017. https://doi.org/10.1080/0305764x.2015.1118441

[7] E. J. Byker and V. Vainer, "Social studies education in Argentina: Hacia Una Ciudadania global?," *J. Soc. Stud. Res.*, vol. 44, no. 4, pp. 355–365, 2020. https://doi.org/10.1016/j.jssr.2020.06.002

[8] D. E. Mulcahy, "The Role of the School Principal in Educational Reform," *Int. J. Educ. Reform*, vol. 28, no. 2, pp. 151–161, 2019.

[9] S. Timcke, "Communication studies at the crossroads: What do we stand for?," *Int. Commun. Gaz.*, vol. 78, no. 7, pp. 726–730, 2016. https://doi.org/10.1177/1748048516655714

[10] S. Papadakis, J. Vaiopoulou, M. Kalogiannakis, and D. Stamovlasis, "Developing and exploring an evaluation tool for educational apps (E.T.E.A.) targeting kindergarten children," *Sustain.*, vol. 12, no. 10, pp. 1–10, 2020. https://doi.org/10.3390/su12104201

[11] C. Ehret, T. Hollett, and R. Jocius, "The matter of new media making: An intra-action analysis of adolescents making a digital book trailer," *J. Lit. Res.*, vol. 48, no. 3, pp. 346–377, 2016. https://doi.org/10.1177/1086296x16665323

[12] S. Kim, "How a company's gamification strategy influences corporate learning: A study based on gamified M.S.L.P. (Mobile social learning platform)," *Telemat. Informatics*, vol. 57, no. September, 2021. https://doi.org/10.1016/j.tele.2020.101505

[13] M. M. Diacopoulos and H. Crompton, "A systematic review of mobile learning in social studies," *Comput. Educ.*, vol. 154, no. November 2019, p. 103911, 2020. https://doi.org/10.1016/j.compedu.2020.103911

[14] C. J. Conner, "Role retreatism of social studies teacher-coaches: An unequal balancing act," *J. Soc. Stud. Res.*, vol. 44, no. 1, pp. 185–194, 2020. https://doi.org/10.1016/j.jssr.2019.01.005

[15] A. Zakharov and O. Bondarenko, "Social status and social learning," *J. Behav. Exp. Econ.* , vol. 90, p. 101647, 2021.

[16] G. Barzanò, P. Cortiana, I. Jamison, M. Lissoni, and L. Raffio, "New means and new meanings for multicultural education in a global–Italian context," *Multicult. Educ. Rev.*, vol. 9, no. 3, pp. 145–158, 2017. https://doi.org/10.1080/2005615x.2017.1346554

[17] J. Walton, "The limits of 'multiculturalism without diversity': multi-ethnic students and the negotiation of 'difference' in South Korean schools*," *Ethn. Racial Stud.*, vol. 43, no. 5, pp. 835–853, 2020. https://doi.org/10.1080/01419870.2019.1643034

[18] M. Japar and D. Nur Fadhillah, "Do We Need to Learn About Human Rights Values?: Jurisprudential Inquiry Model of Teaching in Senior High School," 2018. https://doi.org/10.2991/icli-17.2018.19

[19] L. Jackson and Y. Nesterova, "Multicultural Hong Kong: alternative new media representations of ethnic minorities," *Multicult. Educ. Rev.*, vol. 9, no. 2, pp. 93–104, 2017. https://doi.org/10.1080/2005615x.2017.1313021

[20] S. Papadakis, M. Kalogiannakis, and N. Zaranis, "Designing and creating an educational app rubric for preschool teachers," *Educ. Inf. Technol.*, vol. 22, no. 6, pp. 3147–3165, 2017. https://doi.org/10.1007/s10639-017-9579-0

[21] K. A. Falloon, "Developing Mindful Collection Decision Making: A Case Study on Analyzing Acquisition E-book Projects Using Financial Concepts," *Tech. Serv. Q.*, vol. 37, no. 2, pp. 101–119, 2020. https://doi.org/10.1080/07317131.2020.1728122

[22] T. M. Haghanikar and L. M. Hooper, "Teaching About Homelessness Through Multicultural Picture Books and Virtual Reality in Preservice Teacher Education," *J. Educ. Technol. Syst.*, p. 4723952095869, 2020. https://doi.org/10.1177/0047239520958696

[23] D. Haugh, "How do you like your books: Print or digital? An analysis on print and e-book usage at the Graduate School of Education," *J. Electron. Resour. Librariansh.*, vol. 28, no. 4, pp. 254–268, 2016. https://doi.org/10.1080/1941126x.2016.1243868

[24] Antonio Cordón-García, J., Linder, D., R. Gómez-Díaz, and J. Alonso-Arévalo, "E-Book publishing in SpainThe paradoxes of a dual model," *Electron. Libr.*, vol. 32, no. 4, 2014. https://doi.org/10.1108/el-12-2012-0155

[25] B. Park, H. Chang, and S. (Steven) Park, "Adoption of digital devices for children education: Korean case," *Telemat. Informatics*, vol. 38, no. November, pp. 247–256, 2019. https://doi.org/10.1016/j.tele.2018.11.002

[26] N. Lovenburg, "Journey within Afghanistan: Inside creative's digital book tracking system," *Child. Educ.*, vol. 94, no. 5, pp. 52–57, 2018. https://doi.org/10.1080/00094056.2018.1516473

[27] S. S. Hull and B. S. Chaparro, "Usability Evaluation of Digital Flipviewer® Online Flipbooks," in *Proceedings of the Human Factors and Ergonomics Society Annual Meeting,* 2006, pp. 1839–1843. https://doi.org/10.1177/154193120605001726

[28] K. Stover, L. Yearta, and C. Harris, "Experiential Learning for Preservice Teachers: Digital Book Clubs With Third Graders," *J. Digit. Learn. Teach. Educ.*, vol. 32, no. 1, pp. 5–12, 2016. https://doi.org/10.1080/21532974.2015.1055013

[29] H. P. Hsu, Z. Wenting, and J. E. Hughes, "Developing Elementary Students Digital Literacy Through Augmented Reality Creation: Insights From a Longitudinal Analysis of Questionnaires, Interviews, and Projects," *J. Educ. Comput. Res.*, vol. 57, no. 6, pp. 1400–1435, 2019. https://doi.org/10.1177/0735633118794515

[30] J. Saye, "Authentic pedagogy: Its presence in social studies classrooms and relationship to student performance on state-mandated tests," *Theory Res. Soc. Educ.*, vol. 41, no. 1, pp. 89–132, 2013. https://doi.org/10.1080/00933104.2013.756785

[31] K. A. Brugar and A. M. Whitlock, "Social Studies Skills or Something Else? An Analysis of How the 'Essential Social Studies Skills and Strategies' Reflects Social Studies Instruction," *Clear. House A J. Educ. Strateg. Issues Ideas*, vol. 91, no. 3, pp. 1–7, 2018. https://doi.org/10.1080/00098655.2017.1418129

[32] J. Kang, "Discursive struggles for multicultural curriculum in South Korea," *J. Soc. Stud. Res.*, no. xxxx, pp. 1–10, 2020.

[33] T. M. Kong, A. C. de Villiers, M. B. Ntloana, S. Pollard, and C. Vogel, "Implementing capacity development for disaster risk reduction as a social learning system," *Int. J. Disaster Risk Reduct.*, vol. 50, p. 101740, 2020. https://doi.org/10.1016/j.ijdrr.2020.101740

[34] C. Makwanya and O. Oni, "E-Books preference compared to print books based on student perceptions: A case of university of fort hare students," *Int. J. Interact. Mob. Technol.*, vol. 13, no. 12, pp. 236–245, 2019. https://doi.org/10.3991/ijim.v13i12.10840

[35] G. A. Strouse, L. A. Newland, and D. J. Mourlam, "Educational and Fun? Parent Versus Preschooler Perceptions and Co-Use of Digital and Print Media," *A.E.R.A. Open*, vol. 5, no. 3, p. 233285841986108, 2019. https://doi.org/10.1177/2332858419861085

[36] V. Duché and B. Bourgeois, "From book to e-book: A digital revolution in French cultural studies?," *French Cult. Stud.*, vol. 25, pp. 418–426, 2014. https://doi.org/10.1177/0957155814540402

[37] R. C. Jones and J. W. Saye, "Preservice preparation and other potential influences on in-service beliefs and practices: A tale of two secondary social studies teachers," *J. Soc. Stud. Res.*, vol. 42, no. 1, pp. 81–94, 2018. https://doi.org/10.1016/j.jssr.2017.03.004

[38] S. Papadakis, M. Kalogiannakis, and N. Zaranis, "Comparing Tablets and P.C.s in teaching Mathematics: An attempt to improve Mathematics Competence in Early Childhood Education," *Presch. Prim. Educ.*, vol. 4, no. 2, p. 241, 2016. https://doi.org/10.12681/ppej.8779

[39] U. Lah, J. R. Lewis, and B. Šumak, "Perceived Usability and the Modified Technology Acceptance Model," *Int. J. Hum. Comput. Interact.*, vol. 36, no. 13, pp. 1216–1230, 2020. https://doi.org/10.1080/10447318.2020.1727262

[40] D. Folkinshteyn and M. Lennon, "Braving Bitcoin: A technology acceptance model (T.A.M.) analysis," *J. Inf. Technol. Case Appl. Res.*, vol. 18, no. 4, pp. 220–249, 2016. https://doi.org/10.1080/15228053.2016.1275242

[41] J. M. Morse and J. Cheek, "Introducing qualitatively-driven mixed-method designs," *Qual. Health Res.*, vol. 25, no. 6, pp. 731–733, 2015. https://doi.org/10.1177/1049732315583299

[42] T. Trust and E. Pektas, "Using the A.D.D.I.E. Model and Universal Design for Learning Principles to Develop an Open Online Course for Teacher Professional Development," *J. Digit. Learn. Teach. Educ.*, vol. 34, no. 4, pp. 219–233, 2018. https://doi.org/10.1080/21532 974.2018.1494521

[43] C. Courtois, P. Verdegem, and L. De Marez, "The triple articulation of media technologies in audiovisual media consumption," *Telev. New Media*, vol. 14, no. 5, pp. 421–439, 2013. https://doi.org/10.1177/1527476412439106

[44] W. Wu, F. Jia, and C. Enders, "A Comparison of Imputation Strategies for Ordinal Missing Data on Likert Scale Variables," *Multivariate Behav. Res.*, vol. 50, no. 5, pp. 484–503, 2015. https://doi.org/10.1080/00273171.2015.1022644

[45] P. Spence, "The academic book and its digital dilemmas," *Convergence*, vol. 24, no. 5, pp. 458–476, 2018.

[46] C. Williams-Pierce, "On Reading and Digital Media: Rejoinder to 'Digital Technology and Student Cognitive Development: The Neuroscience of the University Classroom,'" *J. Manag. Educ.*, vol. 40, no. 4, pp. 398–404, 2016. https://doi.org/10.1177/1052562916633 867

[47] B. Reina, "Digital print in the material world: Paratext in service of narrative," *Word Image*, vol. 35, no. 1, pp. 76–88, 2019. https://doi.org/10.1080/02666286.2018.1539552

[48] C. McGeehan, S. Chambers, and J. Nowakowski, "Just Because It's Digital, Doesn't Mean It's Good: Evaluating Digital Picture Books," *J. Digit. Learn. Teach. Educ.*, vol. 34, no. 2, pp. 58–70, 2018. https://doi.org/10.1080/21532974.2017.1399488

[49] Papadakis. St, "Robots and Robotics Kits for Early Childhood and First School Age," *Int. J. Interact. Mob. Technol.*, vol. 14, no.18, pp. 34-56, 2020. https://doi.org/10.3991/ijim.v14 i18.16631

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