

# **Needs Analysis on Digital Smart Books** for Indonesian Language Education General **Courses in the Era of Independent Learning**

Ayu Setiyo Putri (), Heru Prasetyo, Munaris, and Bambang Riadi

Department of Language and Arts Education, Lampung University, Bandar Lampung, Lampung, Indonesia

{ayu.setiyo, munaris.1970, bambang.riadi}@fkip.unila.ac.id, heruprasetyo59@gmail.com

**Abstract.** The results of this study indicate that the development of digital smart books for general Indonesian language education courses is essential to increase student motivation to learn at the University of Lampung. The needs analysis illustrated the results that digital smart books for general Indonesian education subjects were able to increase student motivation. The study in this study used survey techniques and literature studies as the basis for further development research. The research instrument used was a needs analysis questionnaire with 12 questions given to 50 student respondents at the Faculty of Teacher Training and Education, Faculty of Mathematics and Natural Sciences, and Faculty of Agriculture. In this study, data analysis used descriptive statistics. Based on the results of the study, the percentage of answers for each indicator generated by the respondents from each statement obtained an average figure of 74.58% of students agreeing to develop digital smart books for Indonesian Language Education courses at the University of Lampung. This means that it can be concluded that current students need the development of digital smart books for general Indonesian education subjects to increase student learning motivation.

**Keywords:** digital smart books · teaching media · learning motivation

## Introduction

Language is national identity. This sentence is not merely an idiom in the Republic of Indonesia. This refers to Law Number 24 of 2009 concerning the Flag, Language, and State Emblem, as well as the National Anthem, especially in Article 25 which states that Indonesian is a national identity, national pride, and a means of unifying various ethnic groups, as well as a means of communication between regions, and regional intercultural [1].

Furthermore, the law is an embodiment of the sentence that Indonesian is the language of the state as enshrined in the 1945 Constitution of the Republic of Indonesia Chapter XV Article 36. This means that Indonesian is the master of one's own country which must be prioritized. So it is natural that Article 35 (3) of Law Number 12 of 2012 concerning the Higher Education Curriculum inserts one thing that the Indonesian language is a subject that must be present in the higher education curriculum system along with the subjects of Religion, Pancasila, and Citizenship [2].

Not stopping there, the Ministry of Education, Culture, Research, and Technology even released the Decree of the Director General of Higher Education Number 84/E/KPT/2020 concerning Guidelines for Implementing Compulsory Courses in the Higher Education Curriculum (MKWK). The issuance of this decision further confirms that Indonesian language education and learning have an important role in our world of education, especially in character building [3].

However, the University of Lampung, as an institution, does not yet have renewable materials for these compulsory subjects, especially for Indonesian Language Education courses. The curriculum may be replaced with an independent curriculum that gives students the freedom to study and learn things according to their interests and talents [4]. However, with regard to the core courses, the existing learning media were recorded as old alerts in 2016 and did not fully support the independent curriculum learning process.

Not only that, if we look at the results of learning outcomes for general courses in Indonesian Language Education Even Semester Academic Year 2021/2022 at the Applied Biology Study Program, FMIPA University of Lampung, out of a total of 55 students only 8 people got an A or only 14% of the total. The same pattern also appears in the Mathematics Department of Mathematics and Natural Sciences class, which has 33 students. In this class, there were only 8 people, or 24% of the total students who scored A. Meanwhile, in the FKIP Guidance and Counseling Study Program, out of a total of 47 students, only 2 or 4% of the total students completed learning. The students' learning achievement is not maximal, it cannot be separated from the lack of interactive media when used in learning.

In the end, the presence of renewable teaching media is an urgent need that universities must find a solution to. Because the efforts of the Ministry of Education, Culture, Research, and Technology in changing the curriculum are deemed insufficient without improving the quality of teachers and also updating materials that are in accordance with the needs and characteristics of students [5]. Moreover, after the Covid-19 storm, the paradigm of Indonesian education began to shift, now conventional face-to-face learning in the classroom is starting to be coupled with online learning in the form of hybrid learning or blended learning, as stated by Oktavia and Jeffrey in the journal they wrote [6, 7].

The presence of the digital Smart book may be a solution that is expected to be able to improve student literacy skills. Because the media that is displayed in the teaching and learning process has been planned and designed according to the needs of students. So that in the end, adequate literacy skills will boost the ability to think, read, and write [8]. The use of digital smartbooks will not only be limited to one learning system management. But it can also be accessed with various media such as mobile phones, tablets, or laptops though. So that the purpose of the presence of this digital smart book can be achieved, namely the realization of independent learning because teaching materials can be accessed by multiplatform devices and arranged systematically with

easy-to-understand language [9]. Then the content of teaching materials facilitates contemporary learning that combines a combination of text, images, video, and audio in one digital learning resource [10].

Based on this, the needs analysis was carried out. Richards [11] said needs analysis is a procedure to collect information about the needs of learners. Needs analysis is considered an important component of systematic curriculum development and also to see what happens and what is needed after the teaching and learning process in the classroom. Therefore, this study aims to map the needs analysis of the development of teaching media for general courses in Indonesian Language Education at the University of Lampung. A preliminary study for researchers to determine the appropriate steps for the continuation of the process of creating and developing teaching media. A needs analysis is carried out to obtain data in the form of problems and then a product that is believed to be suitable and can overcome the problems that are present in the study appears [12].

A similar analysis has actually been done before by Widyartono [13] who stated that the appropriate teaching materials needed and needed by students depended on the student's needs, student character, and the learning objectives themselves. In addition, the selected learning materials should include language skills, grammar, pronunciation, and cultural content [14]. Based on these conditions, this study aims to a) analyze the condition of the syllabus and teaching materials used or prepared for learning Indonesian Language Education MKU and b) analyze the need for Indonesian Language Education MKU teaching materials in the form of digital smart books.

# 2 Methodology

This research on the analysis of the need for digital smart books for general Indonesian education subjects was carried out at the University of Lampung during March – June 2022. The population taken was even semester students who took general courses in Indonesian Language Education in five study programs and three faculties at the University of Lampung in the academic year. 2021/2022. The sample is 50 students from 5 courses: Faculty of Teacher Training, Faculty of Mathematical Sciences, and Faculty of Agriculture. For example, Orientation and Counseling Course, Physics Pedagogy at Faculty of Education and Education, Applied Biology Course at Faculty of Mathematics and Natural Sciences, Agribusiness and Plants. Protection study program at the Faculty of Agriculture, University of Lampung.

The study in this study used a survey which is a non-experimental quantitative research. Survey designs can be used to provide quantitative descriptions of trends, attitudes, and opinions of a population [15]. When referring to Borg and Gall [16] the concept in their proposed research and development model is stage one; data collection and research; and Dick and Carey's [17] stage three model, survey and descriptive method.

The techniques of data collection processed in studies describing needs analysis consist of three parts: early learning observations, student, needs questionnaires, and literary studies, including mixed learning media, and online learning. The research tools used in this needs analysis are observation sheets, student needs questionnaires, and literature

Percentage	Category
0% - 25%	Strongly Disagree
26% - 50%	Disagree
51% - 75%	Agree
76% - 100%	Strongly Agree

**Table 1.** Interpretation of student response scores [19]

Table 2. Student Responses to Media in Indonesian Language Education MKU Class

Statement	Percentage	Category
I need teaching materials other than those already owned and provided by the lecturer	90%	Strongly Agree
The teaching materials used today are not interesting and do not support independent learning (MBKM)	67%	Agree
I feel that the currently available teaching materials have not met my sense of knowledge of the entire Indonesian Language Education MKU material	48%	Disagree

on the development of digital smartbook learning media for general education subjects in Indonesia. The data analysis technique used is descriptive statistical analysis. A needs analysis is performed using the data received in percentage format. Percentages obtained are based on the results of a modified Likert scale calculation. A Likert scale converts the variable being measured into a variable measure. Additionally, these indicators serve as a guide when formulating a question or statement. Points are reversed for negative sentences [18] (Table 1).

To calculate the percentage in the student questionnaire using the formula:

Percentage (%) = 
$$\frac{\sum gain}{\sum maximum score} \times 100 \%$$

#### 3 Result and Discussion

Referring to the results of filling out a questionnaire conducted by students on the analysis of the need for digital smart book development, student responses to the latest general teaching media for Indonesian language education at the University of Lampung used in the classroom used three statements, which resulted in student responses belonging to the category of strongly agree at 90. %, agree 67% and disagree 48% of the 50 student respondents recorded in Table 2.

Based on the explanation of Table 2, it can be concluded that students need alternative media that fulfills their sense of knowledge of the material. This is confirmed by the data

**Table 3.** Student Responses to the use of digital teaching media in the Indonesian Language Education MKU Class

Statement	Percentage	Category
I am interested in studying the Indonesian Language Education MKU material sourced from learning videos on the internet	75%	Agree
Indonesian Language Education MKU materials need to be presented in the form of interactive videos, online quizzes and packaged up to date to make them more interesting than those presented in textbooks.	82%	Strongly Agree
I like teaching media that are packaged digitally and accessed via a device with an internet connection	74%	Agree

**Table 4.** Student Responses to Conventional Learning and Online Learning at MKU Indonesian Language Education

Statement	Percentage	Category
I need a learning model other than the conventional learning model (face to face, lecture)	81%	Strongly Agree
I want online learning that is supported by the right teaching media	69%	Agree
I hope for the development of digital or online-based teaching media that can be accessed anytime anywhere.	79%	Strongly Agree
Digital teaching media can increase learning motivation for general Indonesian language education courses	73%	Agree
Digital teaching media allows me to learn on my own and can repeat learning anytime and anywhere	77%	Strongly Agree

in the table below which states that student responses to learning using video are shown through 3 statements, all of which fall into the category of agree and strongly agree as shown in Table 3.

From the statement in Table 3, it can be concluded that the presence of digital teaching materials is very attractive to students. This is evidenced by the percentage agreeing 75% for learning videos on the internet, 82% strongly agreeing if the Indonesian Language Education MKU materials are made digital, and finally, 74% agreeing that digital teaching materials can be accessed via gadgets. This further confirms that this research is urgent and important to carry out so that Indonesian Language Education MKU learning has a new color.

The data in Table 4 confirms that students need other learning models that can rely on digital learning resources in their learning process. This is complemented by the results of other respondents who stated that digital teaching media is believed to be the right teaching media because it can be used anytime, anywhere.

Statement	Percentage	Category
I need a digital smart book MKU Indonesian Language	82%	Strongly Agree
Education that has content in the form of text, videos, and also		
evaluations in one hand.		

**Table 5.** Student Responses to the Development of Indonesian Language Education MKU Digital Smart Books

While the results of student responses to the development of digital teaching media in the form of digital smart books for general courses in Indonesian Language Education at the University of Lampung are recorded in Table 5 with the category of strongly agree.

The last response table above confirms that 82% of respondents agree that currently available teaching materials have not been able to improve learning outcomes, students expect the development of new learning media in the form of digital smart books that can be accessed anywhere and anytime. If in total, then the percentage of answers for each indicator generated by the respondents from each statement obtained an average figure of 74.58% of students agreeing to develop digital smart books for Indonesian Language Education courses at the University of Lampung.

Meanwhile, from interviews with five teachers of general courses in Indonesian Language Education, it was found that learning this course requires improvements in several things, such as (1) access to digital teaching media that makes it easier for lecturers and students, (2) teaching media can be accessed on their respective devices. And can be accessed anytime and anywhere, (3) the novelty of course material in accordance with the independent learning curriculum, (4) teaching media can support a number of main learning models in the Merdeka Learn Campus curriculum.

In addition to the analysis of questionnaire data distributed to students, the research results are also based on a literature review of previous studies. Such as research conducted by Suyitno to develop Indonesian Language Teaching Materials for Foreign Language Speakers (BIPA) based on learning needs analysis results. In addition to using analysis of questionnaire data distributed to students, the study results also draw on a literature review of previous studies. Suyitno's research on the development of Indonesian teaching materials for foreign language speakers (BIPA) based on the results of learning needs analysis, etc.. This study concludes that it is necessary to develop a teaching media that is centered on the goals and needs of students [20]. In line with Suyitno, Dereh [21] also conducted a similar research in terms of carrying out a needs analysis for the development of reading comprehension teaching materials for Thai students at calm level. In this study, similar results were also written by Dereh who stated that teaching materials were needed according to the user's character so that learning could run optimally.

Based on previous research, it can be concluded that the development of a Digital Smart Book for Indonesian Language Education General Courses at the University of Lampung is very necessary. This refers to the respondent's data with the perception score and student response to digital smart books that are very necessary. Overall, both from survey data through questionnaires and literature studies, it is stated that it is necessary

to develop a Digital Smart Book for Indonesian Language Education General Courses at the University of Lampung in order to increase student motivation in lectures.

# 4 Conclusion

Finally, it can be concluded that the development of a Digital Smart Book for Indonesian Language Education General Courses at the University of Lampung to increase student motivation is very necessary. It is hoped that the next research will be able to use more data samples taken from students at the University of Lampung from various faculties, so that the percentages that appear are more accurate.

**Acknowledgment.** The author would like to thank all students who have agreed to be respondents in this study. Thanks are also given to the Institute for Research and Community Service which has funded this research at the expense of the University of Lampung DIPA for the 2022 fiscal year.

## References

- 1. J. Y. Prameswari, "Peran Undang-Undang Nomor 24 Tahun 2009 Terhadap Pendidikan Bahasa Indonesia," vol. 4, no. 1, pp. 103–108, 2017.
- S. Mayang, "Penguatan Mata Kuliah Wajib Kurikulum Pendidikan Tinggi," sevima.com, 2022. https://sevima.com/penguatan-mata-kuliah-wajib-pada-kurikulum-pendidikan-tinggi-mkwk
- 3. Marsono, "Manajemen Pembelajaran Bahasa Indonesia di Perguruan Tinggi Untuk Penguatan Karakter dan Kreatifitas Mahasiswa," Eduprof Islam. Educ. J., vol. Volume 4 N, 2022.
- Kemendikbud, Buku Panduan Merdeka Belajar Kampus Merdeka. Jakarta: Kemendikbud, 2020.
- N. A. Hamhij, Hariyanto, and Zakiyah, "Need Analysis of English Material in the Second Third Grade Elementary Program," Proc. Univ. Lampung Int. Conf. Soc. Sci. (ULICoSS 2021), vol. 628, no. ULICoSS 2021, pp. 710–717, 2022, https://doi.org/10.2991/assehr.k.220 102.098.
- Y. Oktavia and M. Zaim, "Blended Learning Integrated Creative Problem Solving in Bahasa Indonesia Learning at University," Proceeding Int. ..., vol. 1, no. 1, pp. 331–339, 2021, [Online]. Available: https://proceeding-icolp.fbs.unp.ac.id/index.php/icolp/article/view/58
- L. Jeffrey, J. Milne, G. Suddaby, and A. Higgins, "Blended Learning: How Teachers Balance the Blend of Online and Classroom Components," J. Inf. Technol. Educ. Res., vol. 13, no. January, pp. 121–140, 2014, https://doi.org/10.28945/1968.
- R. Umyati, R. Yuliana, and O. Rosidin, "DEVELOPING TRILINGUAL SMART BOOK MEDIA AS A LITERACY FACILITY FOR THIRD GRADE STUDENTS OF ELEMEN-TARY SCHOOL," Prim. J. Pendidik. Guru Sekol. Dasar, vol. 10, no. 5, p. 1091, Oct. 2021, https://doi.org/10.33578/jpfkip.v10i5.8294.
- M. Nadira Sari and L. Slamet, "Perancangan Modul Mata Pelajaran Simulasi dan Komunikasi Digital Berbasis Mind Mapping".
- 10. M. D. Abdulrahaman et al., "Multimedia tools in the teaching and learning processes: A systematic review," Heliyon, vol. 6, no. 11. Elsevier Ltd, Nov. 01, 2020. https://doi.org/10.1016/j.heliyon.2020.e05312.

- J. Richard, Curriculum development in language teaching. Cambridge: Cambridge University Press., 2017.
- F. Handayani and W. Lestari, "Journal of Educational Research and Evaluation Need Analysis in The Development of HOTS-Oriented Study Project Assessment Instrument in Android-Based Science Learning," Jere, vol. 8, no. 1, pp. 57–64, 2019, [Online]. Available: http://journal.unnes.ac.id/sju/index.php/jere
- 13. D. Widyartono, "Pengembangan Bahan Ajar Matakuliah Bahasa Indonesia berbasis Web Interaktif," DISERTASI dan TESIS Progr. Pascasarj. UM, no. May 2012, 2010.
- D. Usmansyah, Y. Rasyid, and S. Ridwan, "Needs analysis on Indonesian language learning materials about agriculture for foreign speakers," J. Educ. Learn., vol. 13, no. 1, pp. 155–162, 2019, https://doi.org/10.11591/edulearn.v13i1.7408.
- J. D. Creswell, W. J., & Creswell, Research Design: Qualitative, Quantitative adn Mixed Methods Approaches. Singapore: SAGE Publication, Inc. 2018.
- 16. W. R. and M. D. G. Borg, Educational research: an introduction. New York: Longman, 1996.
- 17. J. O. Dick, W., Carey, L., & Carey, The systematic design of instruction. Ohio: Pearson, 2009.
- E. Risdianto and A. B. Kusuma, "Pembuatan Multimedia Interaktif Teknik Operasional Spss 22," vol. V, pp. SNF2016-RND-95-SNF2016-RND-102, 2016, https://doi.org/10.21009/030 5010220.
- 19. Sugiyono, Metode penelitian pendidikan : (pendekatan kuantitatif, kualitatif dan R & D), Cetakan 6. Bandung: Alfabeta, 2008.
- 20. I. Suyitno, "Pengembangan Bahan Ajar Bahasa Indonesia untuk Penutur Asing (BIPA) berdasarkan Hasil Analisis Kebutuhan Belajar," Wacana, J. Humanit. Indones., vol. 9, no. 1, p. 62, 2007, https://doi.org/10.17510/wjhi.v9i1.223.
- N. Dereh, I. Suyitno, and T. Harsiati, "Analisis Kebutuhan untuk Pengembangan Bahan Ajar Membaca Pemahaman bagi Mahasiswa Thailand Tingkat Menengah," J. Pendidik. Teor. Penelit. ..., no. c, pp. 1238–1245, 2021, [Online]. Available: http://journal.um.ac.id/index.php/jptpp/article/view/14955%0A, http://journal.um.ac.id/index.php/jptpp/article/download/14955/649.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

