

# Development of Chinese Digital Teaching Material for 10th-Grade Topic Self-Introduction Based on Flipbook

Aiga Ventivani<sup>1,\*</sup>, Lukluk UI<sup>2</sup>, Octi Rjesty M.<sup>3</sup>, Dyna Mellania<sup>4</sup>

<sup>1, 2, 3, 4</sup> Universitas Negeri Malang, Malang, Indonesia

\*Corresponding author. Email: aiga.ventivani.fs@um.ac.id

## ABSTRACT

This development research aims to develop Chinese digital teaching material for 10th-grade topic 个人信息 [gèrén xīnxi] (self-introduction) based on flipbook. The research method in this development is the Research and Development (R & D) method using the DDD-E model. Following the development model used, this development research has four stages of research procedures. The first stage begins with the deciding stage. In the decision stage, the research team determined the materials used up to the types of software and hardware used to develop digital teaching materials for learning the Mandarin Language. The second stage is the design stage. At this stage, the research team began to develop digital teaching material designs. The next stage is the development stage. The research team began producing teaching materials using software that had been determined at the decision stage. The last stage is the evaluation stage. suggestions from media and material experts were used as a basis for evaluating products and to determine the extent to which the product has been developed. The material experts and media experts showed an average percentage of 87,5% and 82,5%, indicating that the product of digital learning materials for 10th-grade topic 个人信息 [gèrén xīnxi] (self-introduction) based on flipbook software is valid or suitable for use in the learning process of Mandarin Language both online and offline.

**Keywords:** Development, Teaching Materials, Mandarin Language, 个人信息 [gèrén xīnxi] (self-introduction).

## 1. INTRODUCTION

21st century education has both challenges and opportunities for educational institutions. Conditions for advancing and developing educational institutions must have the power of innovation and collaborate. Learning Mandarin is currently in great demand by the Indonesian people so that more and more formal or non-formal educational institutions provide Mandarin lessons, especially in formal education. In Malang city, there are many public and private high-level schools teaching Mandarin as a foreign language lesson.

In the initial observation, there were many schools teach Mandarin, but there are no definite teaching materials used at the high school level. It is because upper secondary Chinese teachers find it rare and/or difficult to find Chinese language teaching materials that are in accordance with the current curriculum. Research on the suitability of Chinese teaching

materials with the applicable curriculum has been widely carried out since 2013 [6]; [14]; [8]; [17]; [11]; etc.

Haryanti's [6] research reported that there are very few Chinese textbooks in Indonesian, making it difficult for the knowledge transfer process so that teachers still use Chinese-published Chinese teaching materials. The researcher also hopes that there will be Mandarin language teaching materials that meet the appropriate basic competency standards in order to achieve learning objectives. This is in accordance with the results of Mardasari's research [11] which shows that one of the Mandarin language teaching materials that are widely used in Malang City High Schools is not in accordance with the Chinese syllabus contained in the 2013 Curriculum. Ming Han [20] found that most of the Chinese textbooks used in Southeast Asia are textbooks written by Chinese universities.

There are no teaching materials that become a guide in the learning process, making Mandarin teachers in Malang City feel that learning is not optimal. Every meeting, the Chinese teacher has to make handouts sometimes in the form of sheets. Baroroh's [2] research reported that one of the factors that influence the quality of learning outcomes is the interaction between students and teachers and teaching materials. The Ministry of National Education [4] states that teaching material is prepared with the following objectives: 1) providing teaching materials that are following the demands of the curriculum by considering the needs of students, namely teaching materials that are in accordance with the characteristics and settings or social environment of students, 2) assisting students in obtaining alternative teaching materials in addition to textbooks which are sometimes difficult to obtain, and 3) making it easier for teachers to carry out learning.

Every year the technology used is growing. The era of the industrial revolution 4.0 has challenges as well as opportunities for educational institutions. Educational institutions must have the power of innovation, and be able to collaborate to advance and develop themselves. This should also be used in the world of education. Moreover, starting in 2020, various parts of the world are experiencing the COVID-19 pandemic, including in Indonesia. It is impossible to congregate with large numbers of people. One of the impacts of the COVID-19 pandemic that has affected the education system in Indonesia has to learn from home online. With these considerations, the researcher wants to develop flipbook-based Mandarin teaching materials, so that even though the pandemic period ends, the teaching materials can still be used.

The development of flipbook-based Mandarin teaching materials is intended to be used both online and offline. In addition, another advantage is that teaching materials developed based on flipbooks can add variety to Chinese teaching materials, can contain audio, and can be used on Android, this is in line with Yulinar's research [18] which states that Kvisoft flipbooks are digital books with additional music, images and animations. Development researches using flipbooks [18]; [1]; Mulyaningsih, 2017; [15]; [7], etc. reported that the development of flipbook media is effective in improving student learning outcomes and its use in the learning process is favored by students. These previous studies became one of the considerations for researchers to develop flipbook-based Mandarin teaching materials.

## 2. METHOD

The purpose of this development research is to develop digital Mandarin teaching and learning materials 个人信息 [gèrén xīnxī] for 10th grade. The results of this development research are expected to help Mandarin teachers and students learn Mandarin, especially in medieval education 21. Based on the research objectives described in the previous section, the type of this research is development research (Developmental and Research). In this development research, the research team refers to the DDD-E development model. Researchers feel that the DDD-E development model is in accordance with research on Chinese digital teaching materials development. This is in line with Tegeh [16] who stated that one of the learning design models that can be used to develop learning multimedia is the DDD-E model.

The data on the questionnaire sheet was obtained from the validation stage of media and material experts. The material validation questionnaire sheet consists of learning aspects and material content aspects, while the expert validation questionnaire sheet contains an assessment of cover design, writing size, writing clarity, video quality, sound quality, operation of digital teaching materials, digital teaching material design, and overall arrangement systematics. A closed questionnaire using a Likert scale was used in this development research to measure the data obtained.

## 3. FINDINGS AND DISCUSSION

The product developed in this development research is the flipbook-based Mandarin language teaching material [gèrén xīnxī] for 10th grade. Material and media experts have validated the teaching materials. Based on the validation data from material and media experts, the development team made revisions according to the input and suggestions are given. The data from the material expert validation shows that the flipbook-based Chinese language teaching materials [gèrén xīnxī] for 10th grade obtained a percentage of 87.5%. Validation of the material includes aspects of learning and material aspects. The following is a table of material validation data results.

**Table 3.1.** Material Expert Questionnaire Results

No	准则 (Statement)	评价级别 (score)				x	xi	(%)
		STB	TB	B	SB			
		1	2	3	4			
教育的方面 Learning Aspect								

No	准则 (Statement)	评价级别 (score)				x	xi	(%)
		STB	TB	B	SB			
		1	2	3	4			
1	有例句、图片、动画、音频和视频 让学生容易理解 Giving examples in the form of text, images and videos				√	4	4	100%
2	这媒体可以用学生们自己学习 Provide opportunities for independent study				√	4	4	100%
资料的方面 Material Aspect								
1	理解课程内容 The content of the material is in accordance with the 2013 curriculum				√	4	4	100%
2	演示资料清楚 Clarity of the concept of presenting the material				√	4	4	100%
3	练习让学生记忆资料 evaluation		√			2	4	50%
4	这给教学是有趣的评价级别 The attractiveness of presenting the material				√	4	4	100%
5	利用媒体让课文更加生动 Ease of understanding in delivering material			√		3	4	75%
	keseluruhan							
6	提供的刺激和练习足以达到学习目标 Stimulus and Exercise provided is sufficient to achieve learning objectives			√		3	4	75%
	$\sum x$					28		
	$\sum xi$						32	
	P							87,5%

**Information:**

- 1 = very bad                      x = the score obtained  
 2 = not good                      xi = highest score  
 3 = good                            % = score validation percentage result  
 4 = very good

Material validation included the actual material presented and practice questions used. Material validation is 87.5%. That matter shows that the validation of this Chinese digital teaching material is valid. However, the material validator still provides input so that the material presented is even better, namely, adding to the teaching material. It aims to maximize the strengthening and understanding of students on the provided material.

Prastowo [12] described two of the benefits of teaching materials obtained by students, namely, creating interesting learning, reducing dependence, and getting convenience in learning the material. This can be seen in the second point of the learning aspect, which provides opportunities for independent learning. These points get a value of 4 which means very good. In addition, at the point of the material aspect, the material's content in accordance with the revised 2013 curriculum is clear, interesting, and easy to understand. Therefore, these points get a value of 3 and 4 which means good and very good. This shows that the Chinese digital teaching materials align with the benefits of teaching materials presented [12].

Chinese digital teaching materials also contain text, vocabulary, grammar, Han script, types of exercises, and organizational structure in the form of displays classified for each skill. It is in line with the theory of Antje Benedix [3]. The theory describes six criteria for preparing teaching materials: the organization and structure of teaching materials, texts and content, vocabulary, grammar, Han script, and types of exercises. The material contained in the current teaching materials is in line with the Mandarin language syllabus for the 2013 Curriculum 10th grade, which contains knowledge competence (KI 3) and skill competence (KI 4) are described in KD 3.1-3.4 and KD 4.1-4.4 2016 (2016: 11).

**Table 3.2.** Media Expert Questionnaire Results

No	Statement	Score				x	xi	(%)
		STB	TB	B	SB			
		1	2	3	4			
1	The attractiveness of the cover display of digital teaching materials			√		3	4	75%
2	Interesting composition and color combination			√		3	4	75%
3	Clarity of writing and text in diigital teaching materials				√	4	4	100%
4	The attractiveness and suitability of images in digital teaching materials			√		3	4	75%
5	Video quality used				√	4	4	100%
6	Kualitas audio yang digunakan				√	4	4	100%
7	Ease of operating digital teaching materials			√		3	4	75%
8	The suitability of the design of the teaching materials used with the material			√		3	4	75%
9	The attractiveness of digital teaching materials			√		3	4	75%
10	The systematics of the arrangement of digital teaching materials			√		3	4	75%
	$\sum x$					33		
	$\sum xi$						40	
	P							82,5%

Information:

- 1 = very bad                      x = the score obtained  
 2 = not good                     xi = highest score  
 3 = good                         % = score validation percentage result  
 4 = very good

In addition to the feasibility test by the material validator, the development team also performed a feasibility test on the media. The media validator assessed the appearance of teaching materials, cover, color, font, video quality and sound quality, media operation, design, media attractiveness, and arrangement systematics. The Chinese digital teaching material with the theme [gèrén xīnx pada] on the media aspect is valid but needs to be improved or revised in several parts to make a better product, as indicated by the results of table 1 data obtained by a presentation of 82.5%. The media validator suggested to (1) remove some of the images on the cover so that the color doesn't contrast too much, (2) add the UM logo on the front cover, and (3) reduce the size of digital teaching materials so that they are not too heavy and time-consuming during operation.

This digital teaching material for Chinese theme [gèrén xīnxī] has been designed using the DDD-E model. Through the DDD-E development model, the research team carried out the preparation stage to product evaluation. This is in line with the results of

Mardasari's research [11], which states that there are nine guidelines for developing Chinese high school level textbooks in accordance with the 2013 Curriculum, including determining the needs in learning, studying and analyzing the curriculum, designing the structure of the content of teaching materials, determining the book's title, determining the topic in each chapter, compiling a material framework, collecting reference materials, designing illustrations and layouts of the contents of teaching materials, and evaluating the results of writing.

These Chinese digital teaching materials can be used using laptops, computers, and smartphones, making it easier to carry and use anywhere. This is in accordance with the opinion of Asmi et al. [1] that innovative teaching materials can be created by lecturers by utilizing interesting information technology and can be carried and read anytime and anywhere, which can be accessed by students through their devices. Furthermore, this Chinese digital teaching material is based on a flipbook, so it can display an effect like a book that can open each sheet. It aligns with the

research results of Asmi et al [1] that the advantage of this application is that it can give a flip effect, namely opening or turning page by page of a book so that it is like reading an actual book. In line with the opinion of Asmi et al. [1], Yulinar [18] also suggests that a flipbook maker is software that has a function to open every page into a book.

The final result of this development product is a flipbook-based digital Mandarin language teaching material. Therefore, besides displaying effects such as books that can open each sheet of teaching materials, it is also equipped with images, sounds, and videos. This is in accordance with the research of Asmi et al. [1] that the advantage of this application is that the resulting e-book is not just a book, but can be equipped with images, sound, and video. Furthermore, in line with Asmi et al. [1], Wijayanto (2011:76) also states that flipbook maker software can create by converting pdf files, images/photos into a book or physical album when we open it per page. The same thing was also expressed by Hidayatullah [7] that flipbooks can not only insert text, but can also insert images, graphics, sound, links, and video worksheets.

#### 4. CONCLUSIONS AND SUGGESTIONS

The conclusion that can be drawn based on the previous exposure in this development research is that the Chinese digital teaching materials with the theme [gèrén xīnxī] are valid to be used in the Chinese learning process for high school students in class X. However, some improvements are still needed so that the Chinese digital teaching materials [gèrén xīnxī] theme can be used to its full potential. The researchers propose several suggestions for the development of Chinese digital teaching materials with the theme [gèrén xīnxī] for future developers. First, digital teaching materials for Chinese with the theme [gèrén xīnxī] on the theme [gèrén xīnxī], while there are still five other major themes in the 2013 curriculum for upper secondary level Chinese. Further developers are expected to develop the other five major themes. Second, Chinese digital teaching materials with the theme [gèrén xīnxī]. Lastly, the next developer is expected to develop their videos, not taken from YouTube, so that the videos are more in line with the material.

#### REFERENCES

- [1] Adhitya Rol Asmi, Hudaidah Aulia, "Pengembangan E-Modul Berbasis Flip Book Maker Materi Pendidikan Karakter untuk Pembelajaran Mata Kuliah Pancasila MPK Universitas Sriwijaya," *Jurnal Pendidikan Ilmu Sosial*, vol. 27, no. 1, 2018, Available: (<http://ejournal.upi.edu/index.php/jpis>).
- [2] Mashnuatul Baroroh, "Peningkatan Minat Belajar Siswa Pada Pembelajaran Bahasa Arab Materi Istima Melalui Media Berbasis Ict Kelas Iv Mi Maarif Pademonegoro Sidoarjo," *Skripsi*, (Online), 2013, Available: (<http://digilib.uinsby.ac.id/10907/>).
- [3] Antje Benedix, "Kriterienkatalog zur Lehrwerkanalyse," (Online), 2017, Available: ([www.fachverband-chinesisch.de/sites/](http://www.fachverband-chinesisch.de/sites/)).
- [4] Depdiknas, "Panduan Pengembangan Materi Pembelajaran dan Standar Sarana dan Prasarana Sekolah Menengah Kejuruan Madrasah Aliyah SMA/ MA/ SMK/ MAK," Jakarta: Depdiknas, 2008.
- [5] Departemen Pendidikan Nasional, "Panduan Pengembangan Bahan Ajar," Jakarta: Departemen Pendidikan Nasional, 2008.
- [6] Sri Haryanti, "Analisis Kesesuaian Penggunaan Bahan Ajar Bahasa Mandarin Sekolah Menengah Umum dengan Ketetapan Badan Standar Nasional Pendidikan," *Jurnal Humaniora*, vol. 4, no. 1, (Online), 2013, Available: (<https://journal.binus.ac.id/>).
- [7] Muhammad Syarif Hidayatullah, "Pengembangan Media Pembelajaran Berbasis Flipbook Maker Pada Mata Pelajaran Elektronika Dasar Di SMKN 1 Sampang," *Skripsi*, Surabaya: Fakultas Teknik Universitas Negeri Surabaya, 2016.
- [8] Amalia Putri Iriani, "Analisis Buku Ajar "高级汉语"(Gaoji Hanyu) Dengan Kurikulum 2013 dan Teori Antje Benedix," *Skripsi*, Malang: Universitas Negeri Malang, 2016.
- [9] Kementerian Pendidikan dan Kebudayaan. "Peraturan Menteri Pendidikan dan Kebudayaan Nomor 21 Tahun 2016 tentang Standar Isi Pendidikan Dasar dan Menengah," Jakarta: Kementerian Pendidikan dan Kebudayaan, 2016.
- [10] Kemendikbud, "Kurikulum 2013," Jakarta: Kemendikbud, 2012.
- [11] Octi Rjcky Mardasari, "Relevansi Buku Ajar "高级汉语"(Gaoji Hanyu) Dengan Kurikulum 2013," Malang: Universitas Negeri Malang, 2019.
- [12] A. Prastowo, "Panduan Kreatif Membuat Bahan Ajar Inovatif," Jogjakarta: Diva Press, 2012.
- [13] Rusman dkk, "Pembelajaran Berbasis Teknologi Informasi dan Komunikasi," Jakarta: Rajawali pers, 2015.

- [14] Sofy Rizky Safitri, "Pengembangan bahan ajar bahasa Mandarin untuk siswa kelas X SMA," Skripsi, Malang: Universitas Negeri Malang, 2016.
- [15] Meini Sondang Sumbawati dan Dimas Hardiansyah, "Pengembangan Media Flash Flipbook Dalam Pembelajaran Perakitan Komputer Untuk Meningkatkan Hasil Belajar Siswa Kelas X Tkj Smk Negeri 7 Surabaya," *Jurnal IT-Edu* vol. 01, no. 02, (Online), 2016 Available: (<https://core.ac.uk/>).
- [16] Made Tegeh Dkk, "Model penelitian pengembangan," Yogyakarta: Graha Ilmu, 2014.
- [17] Windi Tiarasari. "Analisis Buku Ajar Bahasa Mandarin Sma Kristen Yski Semarang 2015/2016 Sesuai Dengan Ketetapan Kelayakan Penyajian BSNP," Skripsi, Universitas Negeri Semarang. (Online), 2017, Available: (<http://lib.unnes.ac.id/31863/1/2404412011.pdf>).
- [18] Yulinar, "Pengembangan Media Pembelajaran Flipbook Kvisoft," 2019.
- [19] Berbasis Android Kelas Xi SMAN 4 Jeneponto," Skripsi, (Online), Available: (<http://repositori.uin-alauddin.ac.id>), diakses pada 28 Februari 2021.
- [20] Ming Han, 东南亚汉语教材使用现状调查研究, *Journal of National Academy of Education Administration*, 2012.