

## The Development of Digital Flipbook as German Language Learning for Senior High School Class XI

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### ABSTRACT

*The purpose of this research and development study is to develop a learning media in the form of a Flipbook which will be applied to learning German in Class XI High School. This research adapts the development model of Cennamo and Kalk (2019), which consists of 5 coherent and continuous steps. These steps include (1) Define, (2) Design, (3) Demonstrate, (4) Develop, and (5) Deliver. The score given by the media validator was 80%, the material validator was 77.5%, practitioners were 85%, and trial respondents were 87.2%. Based on predetermined validity criteria, the results show that Flipbook is included in the valid category. This research produces a Flipbook digital book that can be accessed using an internet connection with various gadget devices. Therefore, it can be concluded that the product developed is feasible to be applied in learning German.*

### KEYWORDS

*digital book; flipbook; German; language learning.*

### INTRODUCTION

In the millennial era, the use of digital media has occurred massively in all circles, including students. In line with these conditions, actors in the education sector need to review and redesign teaching methods so that their application is in accordance with the needs of today's students (Agaton & Cueto, 2021). The existence of digital media in the learning process can be one of the supporting factors for successful learning (Kholid, 2017). As technology develops, there are lots of digital media that can be utilized in learning such as Socrative, Mentimeter, and Flipbooks. Flipbooks can be compiled from a variety of software, such as Kvisoft Flipbook Maker, Flip PDF Professional, or Heyzine Flipbook Maker. Flipbook is a digital-based media that is in great demand by the public because it has features that provide a different learning experience (Wahyuningtyas & Rosyidah, 2022). Digital books can be stored on personal computers (PC), laptops, smartphones, or electronic devices specially designed for storing and reading digital books. Flipbooks can be inserted with moving animations, audio and video which make this media more interesting (Mantasiah et al, 2019). To achieve the learning objectives properly, it is necessary to have continuous integration between teaching materials and learning. There are many variations of teaching materials that can be utilized in learning. Based on the results of a short interview with a German teacher at SMAN 5 Malang City, the teaching material used was the *Deutsch Echt Einfach* book. This book is only owned by the teacher, while students get a loan from the school library and are not allowed to take it home. This condition causes difficulties for students to study independently or study outside of school. The *Deutsch Echt Einfach* book is a conventional book that requires separate additional applications to access audio and video. In this book there are also no interactive quizzes or other assignment media for students who are directly integrated with the book. Thus, the use of technology in the learning process has

not been utilized optimally. Departing from this idea, Flipbook research and development was carried out. With the existence of Flipbooks, the provision of material and exercises in a variety of formats is expected to support German learning for students. Therefore, researchers conducted research and development to produce a product in the form of a digital Flipbook for high school German learning.

The digital book format is growing because it has many advantages over the conventional book format. The advantages of digital books include being easy to travel with and do not require a lot of storage space (Suyasa & Divayana, 2018). Digital books are a form of appropriate technology implementation because they can contribute positively to the learning process (Sari, 2017). Initially digital books were only in PDF (Portable Document Format) format which could be accessed with the Acrobat Reader program or similar applications. Over time, digital book formats have become more diverse, such as HTML, TXT, and EXE formats (Saefullah, 2016). The ease of reading books becomes even more real after the presence of digital books (Wirasasmita & Uska, 2017). Thus, learning can also be done flexibly. In the 21st century, digital books are popular with a wide audience because they are easily accessible and in line with increasing mobility. Independent learning can also be facilitated by digital books (Vince & Muhtadi, 2019). It can be said, the presence of digital books can provide space for educators to share information more easily and in a more interesting and interactive way.

## **RESEARCH METHODS**

This development adapts the Cennamo and Kalk (2019) development model which consists of 5 coherent and continuous steps. These steps are: (1) Define, (2) Design, (3) Demonstrate, (4) Develop, and (5) Deliver. At the Define stage, the developer conducts short interviews with German teachers at high schools, to obtain information about materials related to classroom learning. From the results of the interview, it was found that the material being pursued was Wohnung. Then in the Design stage, the developer starts to design a design using the Canva application. The design that has been designed is then processed using the Heyzine Flipbook Maker to be converted into a Flipbook. Then in the third stage, namely Demonstrate, the product in the form of a Flipbook that had been compiled was started to be tested on German language learning at class XI high school level. Prior to testing, the product is first validated by material experts, media experts, and practitioners. The flipbook was revised according to the suggestions and comments given by the validators.

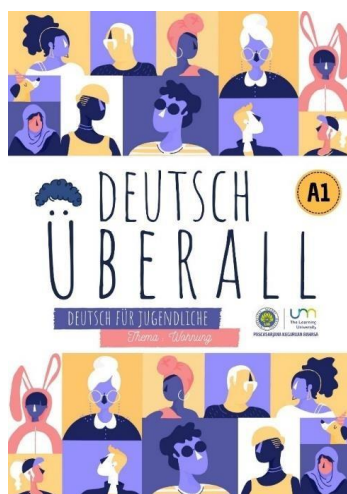
After going through the revision process, Flipbook was then tried out at SMA Negeri 5 Malang involving 30 class XI students. In the fourth stage, namely Develop, further development is carried out based on the results of trials that have been carried out. Then in the final stage, namely Deliver, is the stage of product delivery to users, namely class XI high school students. This means that at this stage Flipbook has gone through the refinement process and is ready to use. In this research and development, the data collection technique used is a questionnaire. The data analysis used in this study is differentiated according to the type of data obtained. Qualitative data in the form of criticisms and suggestions were analysed descriptively. Quantitative data in the form of questionnaire results are analysed quantitatively which will be presented in percentages.

## **RESULTS AND DISCUSSION**

The product produced in this research and development is a digital Flipbook with the title *Deutsch Überall*. Flipbook can be accessed using an internet connection and using various devices such as cellphones, laptops, and computers. The flipbook consists of 16 pages with

13 practice questions. The language level presented in this Flipbook is A1 with material for SMA class XI with the theme *Wohnung* (place to live). The discussion shown in this theme includes: (1) parts of the room in a residence, (2) types or types of housing in Germany, (3) objects in the residence and its location, (4) short advertisement relating to the rent of a place to live, (5) Monologue texts and dialogues related to the description of the place to live, and (6) Comics with dialogue presentations to give opinions about the place to live. Furthermore, the grammar presented in this Flipbook is the *Possessiv artikel im Nominativ* as well as the singular and plural forms of objects found in dwellings. At the end of the page there is an identity of the author and reference sources.

On the cover, the Flipbook title is written, namely *Deutsch Überall*, accompanied by information in the form of *Niveaue* (language level) A1. At the bottom of the title is written additional information, namely *Deutsch für Jugendliche* (German for teenagers), as well as the theme presented, namely *Wohnung* (where to live).




**Figure 1.** Cover

On the next page, there is *Übungen 1* (practice 1) in the form of showing the room with the correct name. An example has already been given, namely *das Wohnzimmer* (living room).



**Figure 2.** Page 1

On page two, there is *Übungen 2* (practice 2) in the form of matching the pictures with the short sentences presented. The images shown are 5 types of housing in Germany.



**TYPISCH DEUTSCHE WOHNUNGEN**

Sehen Sie die Bilder an.

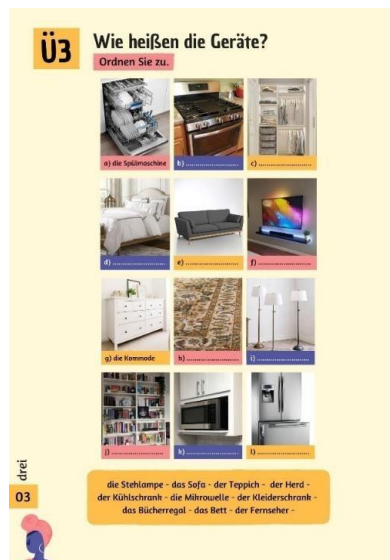
**Ü2. Wer wohnt wo?**  
Ordnen Sie das passende Bild zu.

- William Stigrot (45) und Katja von Hecke (39) kommen aus München. Ihre Wohnung ist im 23. Stock. Die Wohnung ist hell und groß. Sie kostet 750 Euro. Das findet William teuer.
- Noora (30) und ihr Mann Felix Schneider (34) wohnen in Weimar. Sie haben ein Haus mit Garten. Ihr Garten ist schön und groß.
- Maximilian Berger und seine Frau Emma, beide 53, wohnen auf dem Land. Ihre Wohnung hat besondere Architektur. Man baut eine Konstruktion aus vertikaler und horizontaler Holz.
- Sara Heinrich (22) wohnt im Studentenwohnheim. Ihr Zimmer ist immer sauber. Das Zimmer ist 15m<sup>2</sup> groß.
- Erika Schubert (49) und ihre Tochter Margareth wohnen in der Stadt. Ihr Haus ist ziemlich alt.

02

**Figure 3.** Page 2

On page three, there is *Übungen 3* (question 3) which is related to *Übungen 4* (question 4). Students are asked to write down the objects in the house based on the choices available. A distractor is also given in the form of two additional answer choices. Then in *Übungen 4*, it is continued by categorizing the objects that have been found into the right room. An example is *das Bett* (bed) which fits in *das Schlafzimmer* (bedroom)



**Ü3. Wie heißen die Geräte?**  
Ordnen Sie zu.

a) die Spülmaschine    b)    c)  
d)    e)    f)

a) die Kommode    b)    c)  
d)    e)    f)

03

die Stehlampe - das Sofa - der Teppich - der Herd -  
der Kühlschrank - die Mikrowelle - der Kleiderschrank -  
das Bücherregal - das Bett - der Fernseher

**Figure 4.** Page 3



**Ü4. Wo stehen die Möbel?**  
Es gibt mehrere Möglichkeiten.  
Füllen Sie die folgende Tabelle aus.

das Wohnzimmer	das Schlafzimmer	die Küche
der Fernseher	.....	.....
.....	.....	.....
.....	.....	.....

**Ü5. Was sind die wichtigen Informationen?**  
Lesen Sie die Anzeige.

Mozartstraße, direkt im Zentrum.  
4-Zimmer-Wohnung im 5.Stock,  
ca. 90m<sup>2</sup>, Wohnzimmer und Küche  
mit Balkon, Miete 850€ inklusive.  
Eduard 098-343434

a) Wie viele Zimmer? .....

b) Wie groß? .....

c) Preis? .....

d) Wo? .....

Kontakt? .....

**INTERMEZZO**

4ZKB - das ist der Code einer typisch deutschen Mietaufnahme. Übersetzt: über Zimmer, Küche, Bad. Ein zweites B am Ende bedeutet ein Stück Luxus. Darin hat die Wohnung auch einen Balkon. Der übliche Grundriss ist ein Flur mit Garderobe.


**Übung macht den Meister!**

04

**Figure 5.** Page 4

On the next page, there is *Übungen 6* (practice question 6) which presents objects in the house in singular and plural. Students complete the table listed. Don't forget to give examples.

**SINGULAR UND PLURAL**  
Lesen Sie den Monolog.



Das ist die Kommode!

Die Wohnzimmer hat 2 Kommoden!

Tanja, aus Leipzig

**Ü6** Füllen Sie die folgende Tabelle aus.

Singular	Plural
die Spülmaschine	die Spülmaschinen
die Kommode	die Kommoden
die Stehlampe	.....
die Mikrowelle	.....
der Kleiderschrank	die Kleiderschränke
der Kühlschrank	.....
der Fernseher	.....
der Teppich	.....
der Herd	.....
das Sofa	die Sofas
das Bett	.....
das Bücherregal	.....

fünf 05

**Figure 6.** Page 5

On page 6, there is an interactive quiz connected to the Learningapps.org page in the form of matching pictures with the right room names. Students can access this quiz via a link or by scanning a barcode.

**MINI QUIZ**

Scannen Sie den folgenden Barcode



<https://learningapps.org/26559295>

Machen Sie die Aufgabe!

**Viel Erfolg!**

sechs 06

**Figure 7.** Page 6

On page 7, practice questions that are solved by watching a video about self-dwelling. This video is owned by *Deutsch Lernen mit DW* with the title *Nicos Weg Folge 26: Meine Wohnung* uploaded on the Youtube page. An overlapping sentence is presented, then students complete the part based on the information contained in the video.



**WOHNGEMEINSCHAFT SUCHE**

Sehen Sie das Video an.

Was sagen die Personen auf dem Video?

**ü7** Wie sieht die neue Wohngemeinschaft aus?  
Sehen Sie das Video noch einmal und füllen Sie die Lücken aus.

Marvin sucht eine neue \_\_\_\_\_. Die Fenster sind \_\_\_\_\_ und das Zimmer ist hell. Es gibt fünf \_\_\_\_\_, eine Küche und ein Bad. Das Zimmer ist \_\_\_\_\_ Quadratmeter. Die Wohnung ist sehr ruhig. Die \_\_\_\_\_ ist sehr gemütlich. Die Miete kostet mit Nebenkosten 400 Euro im Monat.

groß Küche WG (Wohngemeinschaft) elf Zimmer

sieben

07




**Figure 8.** Page 7

On page 8, a text with the title *Reginas Wohnung* (Regina's residence) is presented along with an illustration. The student's task is to connect the right words into a coherent sentence according to the information contained in the text.

**REGINAS WOHNUNG**

Lesen Sie den Text.



Halo! Ich bin Regina. Das ist meine Wohnung. Meine Familie und ich wohnen seit 3 Jahren im Mehrfamilienhaus. Sie liegt am Stadtrand. Die Wohnung ist ca. 120m<sup>2</sup>(Quadrat-meter) groß. Wir haben drei Schlafzimmer, ein Wohnzimmer, eine Küche, eine Bad und einen Balkon. Unsere Wohnung liegt im 4. Stock. Die Nachbarn sind nicht zu laut und die Gegend ist gemütlich. Wir haben auch einen kleinen Park.

**ü8** Wie ist Reginas Wohnung?  
Bilden Sie die Sätze


Die Wohnung von Regina \_\_\_\_\_ ist \_\_\_\_\_ hat \_\_\_\_\_ liegt \_\_\_\_\_

im vierten Stock  
drei Schlafzimmer  
eine Küche  
am Stadtrand  
sechs Zimmer  
groß  
einen Balkon  
ein Wohnzimmer

Die Wohnung von Regina hat drei Schlafzimmer.

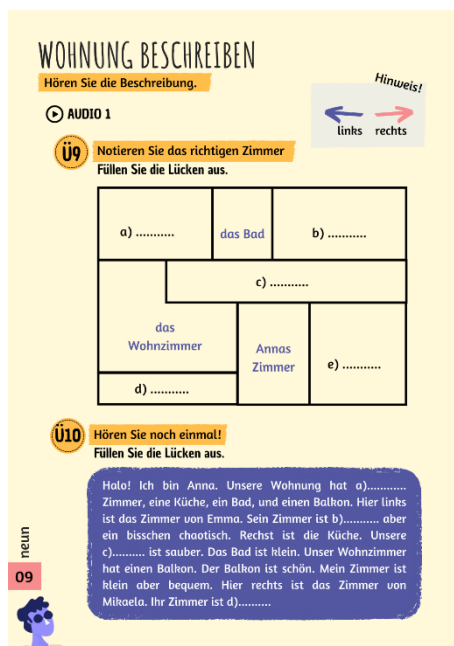
acht

08



**Figure 9.** Page 8

On page 9, 2 exercises are presented to hone listening skills. There is an audio about the room in the house, the student's task is to complete the part of the room according to the audio that is being heard. Furthermore, in the next exercise students complete the gap text based on the audio that has been heard.



**WOHNUNG BESCHREIBEN**

Hören Sie die Beschreibung.

AUDIO 1

**Ü9** Notieren Sie das richtigen Zimmer. Füllen Sie die Lücken aus.

a) .....	das Bad	b) .....
c) .....		
das Wohnzimmer	Annas Zimmer	e) .....
d) .....		

**Ü10** Hören Sie noch einmal! Füllen Sie die Lücken aus.

Halo! Ich bin Anna. Unsere Wohnung hat a)..... Zimmer, eine Küche, ein Bad, und einen Balkon. Hier links ist das Zimmer von Emma. Sein Zimmer ist b)..... aber ein bisschen chaotisch. Rechts ist die Küche. Unsere c)..... ist sauber. Das Bad ist klein. Unser Wohnzimmer hat einen Balkon. Der Balkon ist schön. Mein Zimmer ist klein aber bequem. Hier rechts ist das Zimmer von Mikaela. Ihr Zimmer ist d).....

neun  
09

**Figure 10.** Page 9

The page continues until exercise thirteen. With a total of 16 pages, at the end of the flipbook there is a list of references and the identity of the author. The product is designed using Canva.com which is then transformed into a Flipbook using Heyzine Flipbook Maker. Canva.com and Heyzine Flipbook Maker are free websites. The dominant colors seen on this Flipbook are pink (#F78C8E), blue (#5357A1), and yellow (#FFBD4A). There is an interactive quiz from the Lerningapps.com page which can be accessed via a link or by scanning a barcode. The interactive quiz presented is in the form of matching pictures with the right names. Furthermore, there is also an assignment to upload short articles on the Padlet page. One video featured in this Flipbook is not his own creation, but a video belonging to Deutsch Lernen mit DW entitled Nicos Weg Folge 26: Meine Wohnung which was uploaded on the YouTube page. The audio contained in the Flipbook is the result of a transcript using Trankriptor.com.

The resulting product has gone through the validation stage by validators, namely media validators, materials, and practitioners. This product has also gone through a trial phase by trial respondents. The research data were obtained from validation and trial questionnaire sheet instruments.

The results of media validation for the Flipbook can be stated that the media validator gives four points for three statement items, namely (1) Product visualization is attractive, (2) Design and colors are composed harmoniously, and (3) Products are easy to operate. In the other question items, the media validator gave three points for six statement items, including: (1) Writing can be read clearly, (2) Writing sizes, illustrations, and supporting components are arranged in a balanced manner, (3) Product presentation makes material easy understood, (4) audio quality is good, (5) video quality is good, and (6) supporting components (images, audio, video) are relevant to learning. The media validator gives two points for one statement, namely (1) Products can support interactive learning. If calculated as a percentage, three statement items receive a percentage of 100%, six statement items receive a percentage of 75%, and one statement item obtains a percentage of 50%.

The validation of the Flipbook entitled *Deutsch Überall* was carried out in October 2022 by the media validator, namely M. Kharis, S.Pd., M.Hum. The assessment aspects which are

the main points of the criteria in media validation include visualization, design, and layout. Based on the results of the analysis of the media validator questionnaire, it can be concluded that the developed Flipbook is declared valid, with a final percentage of 80%. Comments and suggestions provided by the media validator are used by the developer as material for improvement.

The results of media validation for the Flipbook can be stated that the material validator gives four points for two statement items, namely (1) The types of practice questions vary, and (2) The material covers all aspects of language skills. In the other question items, the material validator gives three points for seven statement items, namely: (1) The material is in accordance with the level set for class XI SMA, (2) The choice of words is in accordance with students' abilities, (3) The material presented shows variations in the level of cognitive, namely knowledge and understanding, (4) The material presented is relevant to everyday life, (5) The material is presented in a coherent manner, (6) The language used is communicative, and (7) The concept of the material is presented appropriately from a scientific point of view. The material validator gives two points for one statement item, namely (1) Grammatical is arranged correctly. If calculated as a percentage, then two statement items get a percentage of 100%, seven statement items get a percentage of 75%, and one statement item gets a percentage of 50%. Based on the analysis of the material validator data that has been presented, it can be concluded that the Flipbook is included in the very valid category with a final percentage of 77.5%. As for the comments and suggestions given by the material validator in the form of writing and grammatical improvements presented.

The results of practitioner validation can be stated that the media validator gives four points for seven point statements, namely (1) The writing is clear and easy to read, (2) The product is packaged interactively, (3) The illustrations displayed are relevant to the material, (4) Interesting product visualization, (5) Harmonious design and color composition, (6) The illustration arrangement is balanced with the writing, and (7) The cover design is attractive. In other question items, the practitioner validator gives three points for seven statement items, including: (1) The material is in accordance with the level set for class XI SMA, (2) Practice questions according to student abilities, (3) Vocabulary is applied correctly, (4) The grammar is arranged correctly, (5) The product is easy to operate, (6) The product integrates all language skills, and (7) The product can support students in learning German. The practitioner validator gives two points for one item statement, namely (1) The types of practice questions vary. If calculated as a percentage, three statement items receive a percentage of 100%, six statement items receive a percentage of 75%, and one statement item obtains a percentage of 50%.

Based on the results of the analysis of the practitioner's validator questionnaire, it can be concluded that the developed Flipbook is stated to be very valid, with a final percentage of 85%.

The trial was conducted with thirty students as respondents a class XI of SMA Negeri 5 Malang. There are eight questions in the Google Form electronic questionnaire distributed to respondents. The statement items contained in the questionnaire aim to determine the response to the Flipbook that has been prepared.

If the data is calculated as a whole, then the final percentage value obtained is 87.2%. Thus, it can be concluded that based on trials, the Flipbook product developed in this study is included in the very valid category.

## **CONCLUSION**

The final product results have gone through a process of repeated revisions, to achieve maximum results. The advantage of the Flipbook with the title *Deutsch Überall* that has been developed is that it can be accessed flexibly anywhere and anytime. By using a device and an internet connection, this product is accessible and can be used for learning purposes. Furthermore, this product has covered all language skills, so it can be used as a reference for various learning activities. With just one product, students can hone their listening, speaking, reading, and writing skills. Products can also increase students' enthusiasm in learning German, because they are packaged in an attractive and interactive way with lots of photo and illustration components. Thus, the product looks varied without reducing the informative elements in it, so that the content displayed can be more easily understood. In addition, there are also interactive quizzes that can be used as a means of practicing questions.

The revision process has been carried out on an ongoing basis to achieve the best results. However, it is undeniable that this product is also not free from several limitations, which can only be accessed using an internet connection. Furthermore, students cannot fill in the questions directly on the Flipbook. Thus, what students need to do when working on questions is to write down their answers on sheets of paper or books conventionally. The material contained in Flipbook is also still limited to one theme, which means that further development is needed to make this Flipbook a complete product that can be utilized in learning.

The final product can be used as an alternative medium for learning German in class. With this product, students can learn independently. In addition to independent study, with this digital book students can also study under the guidance of a teacher. This product is also expected to be a source of reference for teachers when carrying out the learning process. Furthermore, teachers can also develop their own Flipbooks to create a new learning atmosphere. The product has gone through the revision stage based on the assessments, criticisms and suggestions from the validators and trial respondents. However, this product can be developed even better with further development suggestions, namely by adding other appropriate learning themes. It can be said that the product that has been developed is a prototype of teaching materials. Thus, Flipbook can be used by teachers and students in learning because it has covered all the material in one semester or even one year.

Furthermore, future developers can design Flipbooks so that they can be accessed without an internet connection, so that technical problems that may occur can be minimized. Developers can also add features to the product in the form of synchronization with other applications so that the product can be used more interactively. This suggestion can be implemented by choosing another Flipbook software alternative. There are various software that can be used to make flipbooks, such as Flip PDF Professional and Kvisoft Flipbook Maker. Thus, the limitations contained in this product can be improved to produce even more innovative products.

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