# B1 Vocabulary Meister: Development of an Interactive Website for Vocabulary Mastery in Preparation for the B1 German Leseverstehen Exam with Teleporthq

Hafniati<sup>1</sup>, Risnovita Sari<sup>2</sup>, Rina Evianty<sup>3</sup>, Linda Aruan<sup>4</sup>

hafni73@yahoo.com <sup>1</sup>, risnovita.sari@yahoo.com <sup>2</sup>, rina.frau@yahoo.com <sup>3</sup>, lindaaruan4@gmail.com <sup>4</sup>

Universitas Negeri Medan<sup>1,2,3,4</sup>

Abstract. The development of sophisticated and rapid communication and information technology greatly affects learning. B1 Vokabel Meister is the development of an interactive website for mastering vocabulary in preparation for the B1 German Leseverstehen exam with TeleportHQ which is packaged as an interesting and innovative learning tool by integrating aspects of B1 level reading skills that will convey learning content so that it can achieve learning objectives and improve learning outcomes for German Language Education Study Program students. This study aims to; (1) develop an Interactive Website for Vocabulary Mastery of German Leseverstehen B1 Exam Preparation with TeleportHQ, (2) describe user responses to the Interactive Website for Vocabulary Mastery of German Leseverstehen B1 Exam Preparation with TeleportHQ. The method used in this research is the development method with the 4D model. The data is taken from the book Fit für B1 which is then developed on the B1 Vokabel Meister website with TeleportHQ.

Keywords: Interactive Website, Vocabulary, TeleportHQ.

#### 1 Introduction

B1 level reading skills involve the ability to read different types of texts such as blogs, emails, articles, newspapers, advertisements and written instructions. Comprehension skills include the ability to capture key information, important details, and points of view and opinions contained in these texts. In other words, individuals with B1 level reading skills can understand the essence of a text, capture key information, and understand the different views and opinions contained in the text. This ability is tested in the 5 sections (5 Teile) of the Lesen B1 exam at the Goethe Institut. A good understanding of the text presented on the Lesen B1 exam can be seen in the examinee's ability to determine whether a statement is true or false (richtig/falsch), determine the correct answer from multiple choice questions

(Mehrfachauswahl), match opinions (Zuordnung), summarize arguments and understand written instructions[1][2].

The results of the Goethe Institut B1 exam in 2022, showed that only 5.26% of the 38 examinees, who were students from the German Language Education Study Program FBS Unimed, successfully passed the module or reading skills (Lesen B1). This result indicates the low reading ability of students at B1 level. Reflecting on these results, a questionnaire was given to students as a case study to determine the obstacles faced by students in reading skills. The results of the questionnaire found several problems faced by students in reading skills, including lack of vocabulary mastery, unfamiliarity with synonyms, unfamiliarity with the format of questions and difficulty understanding the context and questions surrounding the text. Students tended to be skeptical about answering questions from long texts, lacked accuracy, and quickly became discouraged when faced with questions related to the text.

Subsequent interviews were conducted with students to explore their barriers and needs in preparation for the Goethe Institut B1 exam. In line with the difficulties they faced in understanding vocabulary and the lack of understanding of the use of synonyms in texts, the students needed help to strengthen vocabulary and recognize the use of synonyms in text contexts. For example, when in lectures, students are familiar with the verb bekommen which means to receive in the text. However, in the B1 exam, synonyms of the verb are used instead, such as bekommen, kriegen and erhalten. (Cruse, 2002:491). In addition, students felt the need to improve their skills in dealing with long texts.

In line with that, it can be concluded that mastering synonyms and antonyms is very important to improve reading comprehension and expand vocabulary acquisition [3][4] found that English as Foreign Language (EFL) students' ability to recognize vocabulary synonyms and antonyms can generally improve their understanding of texts. Gao [5] and Jones [6] both emphasized the importance of understanding antonyms in English texts, with Gao specifically highlighting the role of antonyms in improving reading comprehension. Several studies identified some effective strategies to improve the mastery of antonyms and synonyms. Liu [7] also highlights the role of synonym acquisition especially for second language learners. Spooner [3] suggests using a comprehensive dictionary to expand vocabulary and understand word relationships. Nguyen (2017) introduced a mind-map-like model that utilizes lexicosyntactic patterns to distinguish between antonyms and synonyms. Jones[6] emphasizes the importance of understanding antonyms in language and discourse contexts, as well as their applications in language technology and lexicography.

Several studies have explored the potential of second language learning through interactive news sites. Chen (2015) developed Word News, a browser extension that allows readers to gain vocabulary comprehension and take tests while reading news. Lee (2014) found that the use of digital news, especially through digital news creation and interaction. However, both studies only emphasized on browser extensions, but did not provide more contextual use on other linguistic discourse texts such as blogs, emails, written instructions and advertisements.

Therefore, this study aims to develop an interactive website that provides support for learning Leseverstehen B1 (B1 level reading skills) in German. The interactive website not only presents the discourse text of the Leseverstehen B1 questions, but also provides special facilities that allow users to obtain more information about the words in the text. A web development platform such as TeleportHQ was chosen to fulfill the research objectives and

criteria. With the features possessed by TeleportHQ, it can easily present the discourse text of the Leseverstehen B1 questions in an interactive and interesting way. The platform's ability to provide specialized facilities will allow users to get more information about the words in the text, according to the criteria that have been set. The selection of TeleportHQ as a development tool is expected to achieve optimal results in the development of an interactive website to support the learning of Leseverstehen B1 in German.

# 2 Methods

This study is a developmental research that adopts the 4D Model as the methodological framework. The 4D model, which involves four main stages of Define, Design, Develop and Disseminate, was used as a guide to design and implement an interactive website.

The definition stage aims to identify learning needs and formulate the basic concept of the website, while the design stage involves designing the user interface (UI) and database structure that will support interactive features.

Next, the development stage will focus on implementing the design into a functional website using the TeleportHQ web development platform. Finally, in the deployment stage, the website will be launched and prepared for use by target users, and performance and learning evaluations will be conducted on an ongoing basis.

By using the 4D Model, this research guarantees a structured and scalable approach in the development of an interactive website to assist B1 Leseverstehen learning in German.

Based on the description above, this research will develop an Interactive Website for Vocabulary Mastery for B1 German Leseverstehen Exam Preparation with TeleportHQ.

#### 3 Result and Discussion

This research uses the 4D development model because it is structured, effective but simple. The 4D development model consists of only 4 stages of development. The four stages of the 4D model development include define, design, develop and disseminate. The development steps of the 4D model can be seen in Figure 3.1 below.

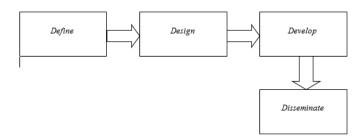


Fig. 1. Steps of the 4D development model

The development stages of the 4D model are define, design, develop and disseminate. The explanation of the 4 stages is as follows.

# a. Definition

Defining is the initial stage in the 4D model. The define stage can be interpreted as the needs analysis stage and Lietaratur. At this stage, field observations are carried out, to find out information about student needs by identifying B1 Leseverstehen learning needs as well as target users and audience characteristics.

Based on this analysis, the website concept design will be known and determine the scope of content and interactive features that will be developed in accordance with learning objectives. So that the expected results can be in accordance with the expected things.

#### b. Design

Design is the stage after the define process, where this stage is a follow-up or core activity from the analysis step. At this stage, the subject matter to be developed is determined. The content of the website will be determined based on the Fit für B1 book, which is used in the German Language Education Study Program FBS Unimed. At this stage, UI and Database Design is carried out such as creating a user interface (UI) design, designing a database structure for synonyms, word definitions, and discourse texts. Designing interaction flow such as determining the flow of user interaction in exploring text and obtaining additional information.

### c. Development

Development is a stage that is passed after design. At this stage, the Interactive Website for Vocabulary Mastery of German B1 Leseverstehen Exam Preparation with TeleportHQ is carried out by creating material according to the subject matter that has been determined based on the Fit für B1 Book.

The Interactive Website for Vocabulary Mastery of German B1 Leseverstehen Exam Preparation with TeleportHQ that has been developed is then validated by experts to determine the feasibility of its use. After being validated by experts, it will be revised (if needed) and then ready to be tested.

# d. Disseminate

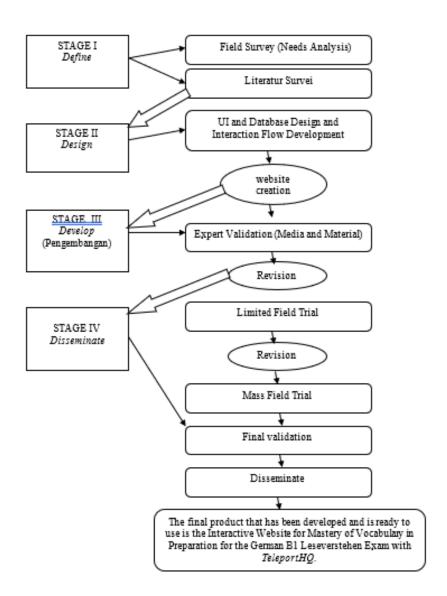
The dissemination stage is the final stage where final packaging, diffusion, and adoption are the most important although most often overlooked. The dissemination stage is carried out to promote the developed product so that it is accepted by users by individuals, groups, or systems.

In the validation testing stage, products that have been revised in the development stage are implemented on real targets or targets. At this stage, measurements of goal achievement are also carried out to determine the effectiveness of the products developed.

In the packaging and diffusion and adoption stages, product packaging is done by printing an application guidebook which is then disseminated so that it can be absorbed (diffusion) or understood by others and can be used (adopted) in their classes.

The Interactive Website for Vocabulary Mastery in Preparation for the German Leseverstehen B1 Exam with TeleportHQ that has been developed, validated, and revised (if any) will be tested on students of Regular Class A 2022 and Regular Class B 2022 in the German Language Education Study Program and to determine its effectiveness. Then the Interactive Website for Mastery of Vocabulary Preparing for the German Leseverstehen B1 Exam with TeleportHQ that has been tested will be revised (if needed) both in terms of appearance and content, so that a product is produced that is suitable for use as a means of learning German.

The steps of developing an Interactive Website for Vocabulary Mastery of German B1 Leseverstehen Exam Preparation with TeleportHQ can be seen as follows



**Fig. 2.** Stages Of Making Interactive Website For Vocabulary Mastery In Preparation For German B1 Leseverstehen Exam With Teleporthq

# 4 Conclusion

Interactive Website for Vocabulary Mastery for B1 German Leseverstehen Exam Preparation with TeleponHQ to achieve learning objectives and improve learning outcomes of German language education study program students, therefore it is necessary to develop B1 Vokabel Meister Interactive Website Development for Vocabulary Mastery for B1 German Leseverstehen Exam Preparation with TeleportHQ in order tto increase student's reading competence in German (Leseverstehen B1)

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