DIGITAL LEARNING MEDIA FOR DEAF STUDENTS IN LEARNING ENGLISH

Putra Pratama[1], Destia Dwi Mulyani[2]

[1,2]Tamansiswa University (English Education and Study Program, Palembang)
E-mail: [1]putra_@unitaspalembang.ac.id, [2]destia@unitaspalembang.ac.id

ABSTRACT

Thus, this research aims to analyze the need for developing digital-based English learning media for deaf children. This qualitative research involved students and teachers at SLB-B Karya Ibu Palembang. A needs analysis was carried out to identify the sustainable situation of deaf children for the development of digital learning media for English lessons. Interview and observation techniques using two types of instruments in the form of interview guides, observation, and field notes were used to collect information about the English language learning needs of deaf students. Research findings identified several needs that underlie the development of digital learning materials for English lessons, namely inadequate English teachers, text-based teaching materials, and less than optimal teaching and learning processes because they are still textbook-based, while deaf students are visual learners. Therefore, the development of digital learning media is very necessary. One of the digital learning media that can be developed is E-books. By using e-books containing media such as pictures, animations, and videos, learning becomes more fun and easier for teachers and deaf students in teaching and learning English.

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Keywords: Learning Media, Digital, Deaf Students, Learning English

1. INTRODUCTION

Language is a complicated human phenomena that consists of the written, spoken, and traditional systems of symbols that people use to communicate. Every nation has a language that is understood by its citizens but not by outsiders, called its national tongue. Kessler (2018) asserts that language serves as a social control mechanism that regulates communication to prevent misunderstandings by enabling participants to understand one another. English was selected as an international language because of its primary function as a communication tool, which facilitates communication between people in different nations.

In Indonesia, English is now a required subject for high school students. Even with Permendikbudristek No. 12 of 2024, learning English in primary school is required for 2027–2028. This is consistent with the globalization era in which English serves as a language of communication across nations. The ASEAN nations also recognize English as their official language (Handayani, 2016). Furthermore, English is the primary language used in many worldwide scientific publications, thus learning the language is necessary if we want to advance personally. Because the government recognizes how important it is to acquire English, English classes will be mandatory beginning in elementary school.

There is no exception to the extraordinary school for children with special needs for the deaf, English subjects are also mandatory to learn. English is a subject that must be tested in the national exam for students with special needs who are deaf. Unfortunately, these deaf students have difficulty learning English. Deafness is a general term that indicates hearing difficulties ranging from mild to severe, classified as deaf and hard of hearing (Murni, 2007). Communication is one of the reasons that deaf students have difficulty learning English. In addition, learning media that are still textbooks are certainly not suitable for learning for children with special needs for the deaf.

One solution that can be used is to use digital learning media that suit the needs of deaf students in learning. The common problem with deaf students is that they are not able to understand abstract things. Therefore, classroom teachers need visual learning media so that deaf students can receive the content of learning materials through their senses (Septiawati et al., 2021).

In the era of the 4.0 revolution, educators are expected to be able to take advantage of technological advances in digital learning resources or digital learning media. One of the digital learning media that can be used is e-books. Ebooks are books or papers that are converted into digital form through a scanner in the form of images, text, or videos and displayed through a computer" (Tuah et al., 2019).

One type of educational resource available to deaf kids with special needs is e-books. This is consistent with the findings of Shara Syah Putri et al. (2018) that exceptional deaf students have a visual learning style due to the engaging aspects found in e-books, such as photos and videos. Moreover, according to Dwyer (quoted in Ibrahim et al., 2000), 94% of information is communicated through the eyes and hearing, or what people see and hear. For deaf children, vision is the primary means of information acquisition due to hearing impairment. Based on the problem above, the researcher try to make a simple digital learning media (e-book) for deaf students in learning english in order to know the impact of digital learning media (e-book). The study was conducted at SLB-B Karya Ibu Palembang and focused on tenth grades.

2. LITERATURE REVIEW

English Learning for Deaf Students

Language has a role as one of the factors in the success of education. This can be from the allocation of language learning to students in school, both Indonesian as well as foreign languages, especially English. Through the English knowledge window wide open.

English is a compulsory subject that must be learned by all students in schools, including students with special needs who are deaf. Based on the learning objectives listed in the English textbook of SMALB Deaf class X, at least there are four learning objectives:

1. Improving the quality of students
2. Develop communication competence in oral and written form for achieve a level of functional literacy.
3. Have an awareness of the essence and importance of english for increasing the nation's competitiveness in the global community.
4. Develop students' understanding of the relationship between language and culture.

In general, learning English at the school level is intended to provide the foundation of language in general so that it can be applied in daily life (Alwasilah, 2007). It is hoped that with the provision of English knowledge, students can increase their insight knowledge.

Concept of E-book

With the development of science, there have been a lot of innovations that have been made in education by utilizing technological advances to create even better teaching and learning processes. One of them is using e-books or electronic book. Shadive and Yang (2020) explain that e-books are books that converted into a digital format that can be displayed on a computer screen or handheld device. Laquintano (2010) "a E-book is a printed book that is converted into digital format through a digitization process so that the book can be displayed on a computer". E-books are books in digital form that contain interactive media, can be used anywhere and

have various types of digital information such as text, images, sounds, and videos that are certainly not in the printed book.

According to Yalman (2015), there are several advantages of e-books:

1. We can store hundreds or thousands of books in just one digital storage like flash disks. This is certainly easier and more practical than printed books.
2. Students and teachers can also bring a lot of books at once when studying without having to carry a heavy load like a traditional printed book.
3. By using e-books, we will decipher the use of paper and help preserve the environment.
4. E-books are also more practical because students can read books at any time.

E-books for English Language Learning for Deaf Students

Like other subjects, learning English also has difficulties and its challenges for deaf students. In the teaching and learning process for deaf students teachers should be able to be creative and utilize the media to make it more interesting and easy understood.

According to Davies (2004), if teachers are able to comprehend the demands of pupils who have special needs, learning can go smoothly. Using visual media to support deaf children's learning is one of the most effective strategies. Deaf students struggle to learn languages, particularly foreign languages, due to limitations in denaturing. Numerous visual learning materials, including animation, text, photos, movies, and videos, can be optimized through e-learning (Marzal, 2014). Since vision is the major sense through which deaf pupils process information, visual media can be quite helpful to them.

One of the learning media that can help is e-books. E-books have various forms of information in them, including visualizations needed for deaf students. Students can access e-books through their handheld devices or presented by the teachers directly in class. By using ebooks, students can directly see the media, such as videos in it. Unlike In print, e-books can be inserted with sign language videos to facilitate language learning english deaf students.

3. METHODS

Descriptive qualitative methodology is used in this study to collect detailed data regarding English instruction and learning at SLB-B Karya Ibu Palembang. According to Sugiyono (2021), the qualitative research method is an approach to research that is grounded in postpositivism and is used to investigate the conditions of phenomena (and experiments as their opposite). The researcher serves as the main object in this method, data collection techniques are carried out through triangulation (combination), data analysis is qualitative and inductive, and the meaning of generalization is highly valued in qualitative research findings. The goal of the qualitative descriptive approach is to investigate a phenomena and provide a report that presents the main conclusions (Arikunto, 2013). This study will focus on SLB-B Karya Ibu Palembang grade X deaf students.

Need analysis was done in order to identify the learning needs for deaf students. Interview, tests, and observation were applied for gathered the data. Interview guide, observation, and field notes were used to collect the information towards the English learning needs for deaf students at SLB-B Karya Ibu Palembang. The specification of the interview guide can be seen in table 1.

Table 1.

Topics	Item
Teacher of English language teaching	1,2,3
The curriculum and materials in teaching english	4,5,6
The difficulties teaching english for deaf students	7,8,9
Learning Media in teaching english	10,11,12

Table 1 show that the specification of the question for interview. There are twelve question, first topic is about teacher of english

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at school. The question include the number of teacher of english language teaching, their educatinal background which consist three question. Second topic is about curriculum and materials in english language teaching, for example curriculum applied in english language teaching and the materials being used for deaf students. Third topic about the difficulties in teaching english for deaf students. Last topic is about the used of learning media in teaching english, kinds of media and the effect to the teaching and learning english. The data analysis consisting of data reduction, data display, and conclusion drawing (Miles and Huberman, 1984). Data reduction means unnecessary information from interview was eliminated and focused only on the information related to the learning process, the learning materials, and the learning platforms used in the english teaching and learning process for deaf students. The data is then summarized and described so that conclusions can be drawn regarding the English language learning needs of deaf students. Finally, conclusions are drawn based on the results of interviews and observations.

4. RESULTS AND DISCUSSION

Result

SLB-B Karya Ibu Palembang is a special school for deaf kids, according to the interview's findings. According to Martothillah and Desiningrum (2020), deafness is a partial or total loss of hearing that affects a person's ability to communicate, interact socially, and express emotions—all of which are necessary for a kid to acquire social competence. Although deaf pupils are roughly as intelligent as typical students, language barriers, abstraction, and limited knowledge affect their development. The primary barrier to their development is the language element, which also affects their incapacity to make sound due to difficulty receiving auditory stimuli (Kosasih, 2012). The researcher found some several findings in term of english teachers, curriculum and materials in teaching english, the problem in teaching english for deaf students, and learning media in teaching english. The findings were explained as follows.

Based on the analysis, it is known that none of the teachers in the school have an English education background. All teachers at SLB-B Karya Ibu Palembang are classroom teachers. A classroom teacher is a teacher who teaches all subjects (literacy, mathematics, science, and so forth) including English in the classroom. Thus, teachers may have difficulty teaching certain lessons because they do not have adequate knowledge about their learning strategies for students in the classroom. This is certainly one of the problems that occur in schools.

The need analysis also found that the teachers designed their own curriculum and syllabus based on the characteristics of their students at the class. Six basic competencies were highlighted in the curriculum that enables students to ; 1) Identify the social function, text structure, and linguistic elements of short and simple spoken and written texts that involve the act of giving and asking for information related to identity and family relationships, according to the context of its use, 2) Distinguishing text structures and linguistic elements to carry out the social function of short and simple descriptive texts by stating and asking about descriptions of people, objects, animals according to the context of their use, 3) Distinguishing text structures and linguistic elements to carry out the social function of expressions of giving instructions, inviting, prohibiting, asking for permission, as well as how to respond, according to the context of use, 4) Identify text structures and linguistic elements to carry out the social function of texts about congratulations according to the context of their use, 5) Distinguishing text structures and linguistic elements to carry out the social function of announcement/ notice texts according to the context of their use, 6) Interpreting social functions and linguistic elements in song lyrics.

Additionally, instruction is still textbook-based, and teachers are still having difficulty locating adequate learning resources for deaf students because neither they nor the students' parents have any experience teaching English to deaf people. To facilitate understanding for both teachers and students,

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instructional materials designed for deaf pupils should include sign language. Since the ability of deaf pupils to use sign language correlates with reading and writing skills in normal language, it is crucial to teach sign language to them as early as possible (Andrew et al., 2014).

Based on need analysis, deaf students have difficulties comprehending instruction. Digital learning media will useful for deaf students because it assists in transmitting information to them. Digital learning media can be adapted to the learning principles of deaf students through consist of media like picture, video, and animation in order to improve learning activity. Considering the importance of sign language, this study try to used digital learning media (e-book) to find out the impact for deaf students. By using digital learning media (e-book), sign language can embed and help deaf students and teacher in learning process. The step in developed the digital learning media (e-book) can be seen in figure 1.
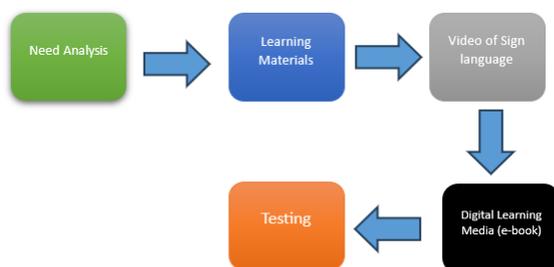
Figure 1

Figure 1 shows five steps in developing digital learning media (e-book) in teaching and learning english for deaf students. The first step is need analysis, the researcher analyzed what students need. Second step is analyzing the materials based on curriculum that applied at SLB-B Karya Ibu Palembang. The researcher decided to take one material about ask for information related to identity and family relationships, taking into account social function, text structure, and linguistic elements that are correct and appropriate to the context. After decided the material, third step is making video of sign languages. The researcher collaborate with the teacher at SLB-B Karya Ibu Palembang to recorded the sign languages based on the materials. Then the

videos embedded to e-book which provided by school. Last step is testing the digital learning media (e-book) to the teachers and deaf students in order to find out the impact.

Discussion

Deaf students can be called "visual learners" because they use their eyes to obtain information because they are hearing impaired. Thus, the use of digital learning media (e-books) and its integration into learning will make it easier because there are videos of sign languages which help them to translate it from english to sign languages. It also help the teacher who do not have an English educational background. They may lack in english, but it is also helped by their mastery of sign languages. Beside of that, teaching and learning process become more enjoyable for deaf students to learn English. Digital learning media (e-books) make the learning process more interesting and prevent them from feeling bored and increase the learning independence of deaf students. The motivation to learn will grow, and their level of concentration towards the subject matter will increase, which will have an impact on the overall quality of education (Jayanegara et al., 2020). Using digital learning media engages the senses, stimulates their attention, and helps them retain information better. It also improves language skills such as comprehension and vocabulary, expression in spoken language, reading capacity, and writing ability (Dashtestani, 2013).

5. CONCLUSION

The researcher concluded by identifying a number of issues and justifications for creating digital learning resources for deaf students to learn English. First off, not a single teacher has any formal training in English. They are all-subject classroom teachers. Thus, teaching English to deaf students is challenging.

Secondly, the instructional materials are still textbooks, which are inappropriate for kids who are deaf. Deaf students are visual learners who rely on their sense of vision to acquire knowledge. Therefore, teaching deaf students English using a textbook approach is

ineffective. To aid students in their learning process, teachers must to provide relevant instructional materials.

Thus, digital learning media is needed for help teacher and deaf students in learning english. There are various digital learning media that can be develop such as e-book, dictionary, or mobile application. The Sign languages can be included in digital learning media that can help the deaf students and teacher in learning process. Beside of that, teaching and learning process become more attractive and enjoyable for teacher and students.

6. ACKNOWLEDGEMENT

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