

**DIGITAL TECHNOLOGY-BASED VOCABULARY LEARNING
FOR EFL STUDENTS WITH DIFFERENT LEARNING
STYLES**

THESIS

Submitted in Partial Fulfillment of the Requirement for
Bachelor Degree of English Education Department



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SEMARANG
2024**

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FOR EFL STUDENTS WITH DIFFERENT LEARNING STYLES
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Wassalamu'alaikum Wr. Wb.

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RATIFICATION



**KEMENTERIAN AGAMA REPUBLIK INDONESIA
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RATIFICATION

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MOTTO

لَئِنْ شَكَرْتُمْ لَأَزِيدَنَّكُمْ

“Indeed, if you give thanks, we will surely increase (favors) to you”
(QS. Ibrahim: 7)

"With every hardship comes ease, find strength in patience and trust in Allah's help."

“Allah will not burden a person but according to his ability”
(QS. Al- Baqarah: 286)

ABSTRACT

Title : **Digital Technology-Based Vocabulary Learning for EFL Students with Different Learning Styles**
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For EFL students, vocabulary is a fundamental component of learning English. Good vocabulary mastery is essential for improving language skills, such as reading, writing, listening, and speaking. In the digital era, technology offers innovative approaches that can be adapted to various student learning styles. However, previous studies tend to focus on the use of technology in general without linking it to students' different learning styles. This study aims to describe the types of digital technology used by students as well as identify the use of digital technology against its suitability for different students' learning styles. This research used a qualitative method and a descriptive research design. The researcher used observation, questionnaires, and interviews as data collection techniques. The participants were 25 eighth-grade students of the 2024/2025 academic year at SMPN 44 Semarang, selected based on purposive sampling. The finding of this study is that there are many types of digital technology used by students in vocabulary learning, such as Smartphones, YouTube, Word wall, PowerPoint, Google Assistant, Canva, interactive quizzes, Word Office, e-books, and online dictionaries which play an important role in improving vocabulary mastery. Based on the analysis, 9 students have visual learning styles, 6 have auditorial learning styles, 6 have read-write learning styles, and 4 have kinesthetic learning styles. Each learning style shows different technology preferences: visual students are more suitable with technologies such as videos on YouTube, social media, PowerPoints, and digital images; auditorial students with songs on Spotify and podcasts from YouTube and interactive discussions; read-write students with interactive quizzes, digital text, Google Assistant, AI applications, and online dictionaries; and kinesthetic students are more suitable for using practice games from word wall, and interactive presentations.

Keywords: *Digital Technology, Educational Technology, EFL Students, Learning Styles, Vocabulary Learning.*

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Semarang, 10th December 2024

The writer,

A handwritten signature in black ink, appearing to be 'Sri Wahyuningsih', with a long horizontal line extending to the right.

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CHAPTER I

INTRODUCTION

This chapter consists of the background of the study, research question, research objectives, research significance, and scope and limitations research of the study.

A. Research Background

The integration of technology into English language teaching fundamentally changes the traditional approach toward new possibilities for more practical and self-directed learning. Technology has improved education in many ways, including teaching and learning. In terms of the teaching and learning process, there is an intertwined relationship between the growth of technology and English. The spread of information and communication technology in all aspects of 21st-century life is quite clear and well-accepted, with how teachers can successfully integrate technology into literacy teaching, especially in English vocabulary teaching. Improving students' vocabulary is an urgent need if we are to develop the advanced levels of literacy required for success in school and beyond.

The importance of vocabulary learning has been widely acknowledged and well-documented in the field of second language acquisition. Learning vocabulary is an essential part of mastering a second language (L2), contributing to enhancing L2 listening,

speaking, reading, and writing skills (Hao et al., 2021). Although some teachers may think that vocabulary learning is easy, learning new vocabulary items has always been challenging for learners. The educational implications for EFL students with limited vocabulary are profound. Students who do not have sufficient vocabulary or word-learning strategies continue to struggle throughout their educational careers, which leads to a cycle of frustration and continued failure (Khany & Khosravian, 2014). Vocabulary is a crucial part of language learning because vocabulary is one of the essential components of language learning. Therefore, it is easier for students with a large vocabulary to learn a language than for students with a small vocabulary to learn a language. This means that students with a large vocabulary can learn foreign languages easily.

Therefore, there is a need for learning methods and means to create a learning atmosphere that helps students interact with the vocabulary or concepts studied in depth (language) and interact. To help EFL students learn vocabulary, the use of digital technology in education is necessary. Supported by the use of digital technology, learning English vocabulary will be more effective and interesting. Many digital technology media can be used, such as PowerPoint, pictures, videos on YouTube, audio on Spotify, quizzes, Google Classroom, Google Drive, Google Assistant, intelligent assistant, games in a word wall or Duolingo, social media such as Instagram, tiktok and others. With the variety of technological tools for

vocabulary learning, it is expected to facilitate and support EFL students' learning. However, the use of digital technology must be adapted to students' varied learning styles. The use of digital technology is not just arbitrary for student learning it must also pay attention to students' varied learning styles. Educational experts interpret learning styles differently. According to Reid, (1995) defines learning style as "an individual's natural ways, habits, and preferred ways of absorbing, processing, and retaining new information and skills. Another expert, Fleming, (2001) states that learning styles are individual characteristics and preferred ways of gathering, organizing, and thinking about information. Fleming, (2001) also divides learning styles into 4, namely Visual (V), Aural (A), Read/Write (R), and Kinesthetic (K), which is then known as the VARK Model learning style.

From some of the experts' definitions above, learning styles can be explained about individuals and the process of acquiring new knowledge and skills. Individual style has four elements, namely ways, characteristics or peculiarities, habits, and preferences. Furthermore, learning is explained to include three steps or stages, namely collecting (receiving, absorbing), processing (processing), and retaining (organizing) new information and skills. Learning style is essential in the teaching-learning process as it is a part of students' characteristic, and each student brings their style to the classroom. For this reason, a teacher has to be able to identify

students' learning style in order to provide an appropriate teaching methodology for each student (Annury, 2019)

Learners who have a visual learning style play a very important role in the sense of sight, it will be easier to remember what is seen, prefer to see pictures, writing with interesting shapes and colors, not easily distracted by noise while learning, prefer to do demonstrations than speeches, and include fast and diligent readers. Meanwhile, the auditorial learning style focuses more on learning through the sense of hearing. Students who have an auditorial learning style digest what the teacher says more quickly through the speed and high and low pitch of the voice, are easily distracted by noise while learning, like to talk, discuss, and can explain things in detail, enjoy listening to stories, can repeat and imitate tones, rhythms, and colors of sound, and enjoy reading aloud. The kinesthetic learning style, which involves movement, touching, and doing, is distinct from the two previously mentioned learning types. Kinesthetic learners prefer to learn through manipulation and practice, like active learning activities like games, when reading or memorizing by walking or making movements, like to use real objects as learning aids, and typically use their fingers as instructions when reading. They will find it very difficult to sit still for a long period.

Vocabulary learning is needed to support communication using English. Digital technology-based learning is expected to

support and facilitate vocabulary learning to be more active and interesting. However, in every lesson, it is necessary to recognize and adjust students' learning styles to the use of digital technology. Thus, each student is better able to be given digital media technology that suits the learning style of EFL students. Research on vocabulary learning through the integration of digital technology to students' varied learning styles still needs to be conducted and expanded because not many studies focus on it. Learning style adjustment to interest in digital technology is very necessary to be researched because the researcher argues that the combination of digital technology-based vocabulary learning with respect to student learning styles will be able to find out early which student learning styles are more suitable for digital technology as a medium in vocabulary learning in class.

Research by Hermagustiana and Rusmawaty (2018) shows that the use of technology supports EFL teachers in various ways, such as the use of digital dictionaries, internet access, and PowerPoint presentations in learning. Meanwhile, research by Luthfiyyah et al. (2021) noted a significant increase in the use of technology for English language teaching at the secondary school level, particularly in vocabulary learning. In addition, teachers need to pay attention to different learning styles among students, as an understanding of these learning styles can help students know the learning styles and the appropriate use of digital technology (Shah

et al., 2013). Based on these findings, the researcher incorporated digital technology into vocabulary learning by considering students' different learning styles.

This study aims to fill the gap, hoping that this combination will help students learn to use digital technology in vocabulary learning in a way that suits their learning styles at SMPN 44 Semarang. Therefore, the researcher chose this topic by conducting research with the title **“Digital Technology-Based Vocabulary Learning for EFL Students with Different Learning Styles.”**

B. Research Question

Referring to the research background that the researcher explained, therefore the researcher formulated two research questions, those are:

1. What digital technologies are used in vocabulary learning for EFL students?
2. How can digital technology be adapted to students' different learning styles in vocabulary learning?

C. Research Objectives

The research objectives of this study will be the following:

1. To describe the digital technology used in vocabulary learning for EFL students.
2. To identify the adjustment of digital technology to different learning styles of EFL students in vocabulary learning.

D. Research Significance

This study has the same benefits for several reasons:

1. For EFL students

The researcher hopes that this study can be used as a reference for students in determining digital media technology in vocabulary learning after knowing the learning style they already have.

2. For University

With this study, researchers hope to contribute information about the use of digital technology that is appropriate for EFL students in vocabulary learning for universities, especially in the English department, Faculty of Tarbiyah and Teacher Training.

3. For Researchers

The researcher earned a great deal of experience by doing this study. The researcher expects that all students who wish to conduct research on related subjects will find this study valuable. Furthermore, it is anticipated that the findings of this study will serve as a guide for future investigations into related subjects.

E. Scope and Limitations Research

In this study, the author limits the topic of this research to the use of digital technology in vocabulary learning for students with different learning styles in grade VIII students at SMP Negeri 44 Semarang in the academic year 2024/2025.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter describes the previous research, and literature review of the study.

A. Previous Research

The literature review used as a reference by the researcher is sourced from several research journals, this is used as a difference between recent research and previous research. There were several main journals that inspired the research to identify this topic.

1. Digital Technology-Based Vocabulary Learning

The first one was a journal from (Luthfiyyah et al., 2021). This journal analyzed the use of technology for English language teaching at the secondary level based on empirical studies. The researcher of this journal used a method is less scrutiny than a critical systematic review study. It reviews and concludes the progress of relevant literature in certain areas over time by identifying the patterns of studies for synthesizing the state of knowledge. According to the findings, research on technology use at the secondary level of ELT has been steadily increasing over time. However, more qualitative or mixed-method studies must be conducted in the future, and it is urgent to look into how well technology improves speaking, listening, and reading abilities. In conclusion, in order to produce more relevant future

studies, it is necessary to highlight the right integration of technology, pedagogy, and language content. Some potential topics for future research are discussed further in this study.

The other journal about digital technology-based vocabulary learning was a journal by (Hermagustiana & Rusmawaty, 2018). This journal investigate the support technology offers to EFL teachers in their teaching practice and figures out some challenges they face when using technology for teaching vocabulary. In the journal, the researcher used semi-structured interviews and classroom observations. This case study revealed that technology supports EFL teachers in several ways, such as the use of digital dictionaries, the internet, and PowerPoint presentations as teaching media. In addition, some of the challenges that arise when teachers try to use technology in the classroom are also examined.

The other journal about digital technology-based vocabulary learning was journal by (Hao et al., 2021). This journal uses Meta-analysis research. This meta-analysis reviews research between 2012 and 2018 that focuses on technology-assisted second language (L2) vocabulary learning for learners of English as a foreign language (EFL). Researchers obtained a total of 45 studies of 2,374 preschool to college-aged EFL students contributing effect sizes to this meta-analysis. Compared to traditional instructional methods, the overall effect of

technology-assisted L2 vocabulary learning was sizable ($g = .845$), suggesting that technology-assisted L2 vocabulary learning is more beneficial compared to non-technology-assisted instruction. The results of this journal, based on mobile devices and learning on the go, suggest that L2 vocabulary learning may be most efficient when students use mobile phones and are not constrained by classroom settings.

The research has a relationship with the latest research on the use of digital technology-based learning media in learning English vocabulary. Therefore, researchers use this journal as one of the sources for their latest research.

2. EFL Students with Different Learning Styles

According to the second research question, the researcher also used a journal (Yotta, 2023). This research focuses on teachers' classroom practices in accommodating different learning styles and suggests important steps and modalities to meet the educational needs of all students in the English classroom. This study uses the VARK learning style model which includes four main categories: visual, auditory, kinesthetic, and reading/writing. The method used in this study was a questionnaire to obtain adequate information about teachers' classroom practices in accommodating different learning styles. The findings of the study show that more than average EFL teachers in Chamo secondary schools in Arba

Minch, Ethiopia do not accommodate different learning styles in the classroom. In addition, learning aids and classroom exercises are not appropriate for learning style differences. EFL teachers also do not accommodate and address learning style differences.

The other journal is about (Annury, 2019). This research focuses on understanding the perceptual learning styles of EFL students. The method used in this research is a descriptive quantitative approach with data collection methods through a perceptual learning style questionnaire, documentation, and observation. The results show that the kinesthetic learning style is more dominant compared to visual and auditory in EFL students at UIN Walisongo Semarang. This finding provides insight that students with kinesthetic learning styles learn more easily through hands-on experiences such as experiments or other practical activities.

The other sources about VARK learning style made by (Weganofa et al., 2022). This study was aimed at investigating the kinds of learning styles used by college students in learning English vocabulary. The researchers categorized the kinds of learning styles based on Fleming's theory into Visual (V), Aural (A), Read/Write (R), and Kinaesthetic (K). Further, they used questionnaires and interviews to collect the data from forty participants.

The other journal about (Dehghani & Branch, 2021). In this journal focus on what learning styles are preferred by Iranian undergraduate EFL students and their performance on the vocabulary test. The researchers took 44 samples of university students and distributed visual, auditory, reading writing, and kinesthetic learning style questionnaires and vocabulary tests. The results of this journal study showed that students with visual learning styles performed well in vocabulary learning.

B. Literature Review

1. Digital Technology

Digital technology education is a key factor in helping all people including education actors in facing the fourth revolution. From this opinion, digital technology education is important for all people facing the challenges of changing times that are increasingly developing, including information and communication technology. According to Mayer (2009) Cognitive Theory of Multimedia Learning, digital technology can be defined as an educational tool designed to facilitate effective learning by utilizing multimedia elements in ways that align with human cognitive processes. By following Mayer's principles, digital technologies can increase engagement, retention, and comprehension, ultimately changing the educational landscape. This theoretical foundation continues to

guide the development and evaluation of digital tools in modern education.

A study shows that the existence of cultural integration in a person will increase the willingness of individuals and groups to create new ideas in their environment and be applied to grow their cognitive knowledge, academic success, careers, and social care (Sharif, 2019)

In education, technology integration is the use of technology to deepen learning and achieve pedagogical goals. Teachers can incorporate computers, smartphones, virtual reality tools, and other innovative devices to help students learn. The digital era affects the needs of society, including the need for education. In the digital era, people began to leave the boundaries of space in the scope of education.

Based on Mayer (2009) principles, several types of digital technology are particularly effective in supporting English language learning:

1) Learning videos.

Learning videos are media used to convey information visually through recordings or animations. Videos with narration and animation help reinforce learning, according to the principles of modality and continuity. Learning videos can be concept explanations, demonstrations, experiments, or presentations of learning materials.

2) Language Learning application.

Learning apps are software designed specifically for educational purposes. Some examples of popular apps include Wordwall, Duolingo, Quizlet, Grammarly, Hello Talk, and Digital Translate utilizing interactive elements, immediate feedback, and segmentation of material to actively engage learners. Learning simulations and games.

3) Webinars and video conferencing.

Webinars and video conferencing are effective solutions for delivering online or distance learning. Through these platforms, students can attend classes directly with teachers without having to be in the same physical location. Webinars and video conferencing allow real-time interaction between teachers and students, including the ability to ask questions, participate in discussions, and interact with classmates. This allows students to stay engaged in the learning process despite being in different places.

4) Augmented reality (AR) and virtual reality (VR).

Interactive simulations that support hands-on experiential learning provide a more interactive and engaging learning experience.

5) Digital Flash Cards

Platforms like Quizlet utilize distance-based repetition to reinforce memory.

6) Interactive Whiteboards

Tools like Smartboard effectively combine text, images, and video to support signaling principles.

Based on the expert opinions mentioned above, it can be concluded that the function of various digital-based learning media is to help teachers and students get information and conduct learning activities more effectively and interactively through the use of digital technology and various types of applications.

2. Vocabulary Learning

Hornby (1987) defines vocabulary as the number of words that make up a language with definitions or translations. Vocabulary is: a) All the words that a person knows or uses. b) All the words in a particular language. c) The words that people use when they are talking about particular subject. d) A list of words with their meaning, especially in a book for learning a foreign language. It can be concluded that vocabulary is all the words known and used by a person in a language along with their meanings.

Learning vocabulary is an essential part of mastering a second language (L2), contributing to enhancing L2 listening, speaking, reading, and writing skills. Although some teachers may think that vocabulary learning is easy, learning new vocabulary items has always been challenging for learners. The

educational implications for EFL students with limited vocabulary are profound. Students who do not have sufficient vocabulary or word-learning strategies continue to struggle throughout their educational careers, which leads to a cycle of frustration and continued failure (Khany & Khosravian, 2014).

Furthermore, there are some types of vocabulary in English. Fries (1974:4) divides vocabulary into four types:

- 1) Content words represent the names of objects or things, that is: concrete nouns (museum, post office), action done by or with these things, that is: verbs (teach, treat), and the qualities of these things, that is: adjectives (good, smart).
- 2) Function words are those words that are used as means of expressing the relation of grammatical structure such as conjunctions (and, but), articles (a, an, the), etc.
- 3) Substitute words, those that represent no individual things or specific actions, but function as substitutes for whole form classes of words, that are indefinite (anybody, anyone).
- 4) Distributed words, are those that are distributed in use according to grammatical matter as the presence or absence of a negative, such as some, any, either, etc.

According to Montgomery (2007), vocabulary can be categorized into four main types, namely:

- 1) Auditory Vocabulary. It refers to words that a person comprehends by hearing. The fetus can recognize certain

words while in the womb, and learning new words is an ongoing process throughout life.

- 2) Speaking Vocabulary. These are words that someone actually says. The quantity of words in this area is smaller than the listening vocabulary, with most people using only 5,000 to 10,000 words for all talks and directions.
- 3) Reading Vocabulary. This type of vocabulary includes words that are understood when reading text. It is possible for a person to understand words through reading vocabulary even though they do not use them in conversational vocabulary.
- 4) Writing Vocabulary. The words that a person employs to express oneself in writing are referred to as writing vocabulary. Writing language is heavily impacted by terms that can be spelled.

Vocabulary is basic to communication. If people do not recognize the meaning of the key words used by those who address them, they will not be able to participate in the conversation. If they want to express ideas or ask for information, they must be able to produce words to convey their meaning. Thus vocabulary learning is very crucial in developing competence in a second or foreign language. Teaching vocabulary is clearly more than just presenting a new word. In teaching vocabulary, the teachers are hoped to have some technique in order to make students familiar with the vocabulary

so that they understand new word easily. The techniques functions not only to help the students grasp the meaning of new words quite easily, but also to vary the teaching activity in order to avoid the boredom on the part of students.

According to .Barclay & Schmitt, (2019) technology not only supports individualized learning, but also encourages engagement through gamification elements and multimedia content, making vocabulary acquisition more effective and fun. The integration of context in vocabulary teaching is another key element. Presenting words in authentic contexts improves students' ability to understand and use vocabulary appropriately. This approach is in line with situational learning theory, where meaning is built through real applications and experiences. Thus, vocabulary teaching should involve a variety of contexts to encourage practical language use. (Barclay & Schmitt, 2019)

3. EFL Students with Different Learning Styles

Educational experts interpret learning styles differently. According to Reid, (1995) defines learning style as an individual's natural ways, habits, and preferred ways of absorbing, processing, and retaining new information and skills. Another expert Fleming, (2001) states that learning styles are individual characteristics and preferred ways of gathering, organizing, and thinking about information. Fleming (2001) also divides learning styles into 4, namely Visual (V), Aural (A),

Read/Write (R), and Kinesthetic (K), which is then known as the VARK Model learning style.

The VARK learning styles are used to describe four characteristics of students' learning, those learning styles are visual learners, auditory learners, read-write learners, and kinaesthetic learners (Fleming, 2001). To identify this theory, the researcher used questionnaires for students to help the researcher identify and understand the student's learning preferences. Here are the explanations of VARK learning styles:

a. Visual Learners (V)

Visual learners more prefer to learning the knowledge in charts, graphs the symbolic, hierarchies, and other device that use to represent something that presented in words (Fleming, 2001).

Fleming mentions the characteristics of visual learners as more interest in design and visual features, preferring to make a diagram, charts, or graphs to explain things, prefer to draw while describing something, desire to use maps, charts, graphs, symbols, diagrams, brochures, underlining flow charts, and different colors in learning. And very powerful in doing visual imagination in remembering random sequences and words. This strategy includes the illustration of information in charts, graphs, symbolic, and many things that can represent words. Visual learners think

that layout, whitespace, headings, pattern, design, and color are more important in establish the meaning.

b. Aural or Auditory Learners (A)

Auditory learners prefer to learn from spoken or heard (Fleming, 2001). The auditory learners discover information through listening and interpreting information. Fleming described that the auditory learner, learn best from discussion, oral feedback, email, phone chat, discussion board, oral presentation, classes, tutorials, and talking with others (Fleming, 2001). There are some aural learner characteristics, such as like to think about how each word sounds instead of finding the word in the dictionary, like to ask friends for suggestions, listening to the explanations, or asking questions, preferring to listen the audio channels, radio programs, or interviews, enjoying to talk or group discussion, like to use a tape recorder to they can listen to the voice again and again, and attend as many lectures and teaching sessions as much as they can.

The auditory learners prefer the spoken and heard as the best way to accept the information. Learners with this modality use discussion, oral feedback, asking questions, email, chat, texting, discussion board, oral presentation, and talking with others as the best way to learn.

c. Read-Write Learners (R)

According to Fleming, he defined that read-write learners are important on the precision of language. Students with this preference will learn best from words either read or write something (Fleming, 2001). The read-write learners have several characteristics of learning, those are like to taking notes, enjoy to make essays, reports, or read books and websites, like to rewrite the ideas and principles into other words, have a strong reverence for words, and keen to use quotes, lists, texts, books, and manuals.

The preferences of read-write learners are information displayed in words. The students prefer to use books and hand-outs or anything displayed with text. They have a strong reverence for words.

d. Kinaesthetic Learners (K)

Kinaesthetic learners prefer to learning by doing or they tend to do physical movement. Basically, learners with a kinaesthetic style tend to use the whole body in their learning activities. The key of kinaesthetic learners is connected to reality, through experience, example, practice, and simulation (Fleming, 2001). Here are the several characteristics of kinaesthetic learners, those are, prefer to learning by doing, use many senses like sight, touch, taste and smell, and like to use real life example to explain things. Include picture,

movies, and videos. The kinaesthetic learners use the experience, example, practice and simulation as their best learning. They like to learn with move or leaning by doing.

According to the theoretical explanation from Fleming, learning styles divided into four items, those are VARK. Visual for students who love learning with design and visual features. Auditory for students who love learning with video. Read-write for students who love learning with read. And kinaesthetic for students who love learning by doing.

CHAPTER III

RESEARCH METHOD

This chapter describes the research approach used in research design, research setting, the source of data, the technique of collecting data, the focus of the research, the research instruments, the technique of analyzing data, and the technique of validity data.

A. Research Design

In this study, the researcher used the qualitative method specifically the descriptive qualitative method. The goal of qualitative descriptive is a comprehensive summarization, in everyday terms, of specific events experienced by individuals or groups of individuals. The other goal of descriptive qualitative is to describe a phenomenon and its characteristics. This approach is more concerned with what, how, or why something happens (Nassaji, 2015).

The researcher used this type of method because this method is very appropriate to explain the types of digital technology in vocabulary learning and digital technology that suits the learning styles of EFL students in vocabulary learning at SMPN 44 Semarang.

B. Research Settings

1. Place

This research was conducted at SMPN 44 Semarang, Jl. Raya Wonoplumbon, Wonoplumbon, Kec. Mijen, Kota Semarang, Jawa Tengah 50214. this research will involve junior high school. That is, focusing on 8th-grade students who take English classes.

2. Time

This research was conducted for one month, from October 1st to October 30th, 2024. Researchers used 3 weeks to make observations and 1 week to distribute questionnaires and conduct interviews.

C. Source of Data

The selection of data sources is an important aspect of research because when researchers have concrete and reliable data sources, it can make readers more confident to research and create actual and reliable results. The main source of data in this study is all information received directly from the participants. The participants in this study were 25 students from class VIII B, selected from a total of 4 classes in SMPN 44 Semarang.

The sampling method used was purposive sampling, as this study specifically aims to find out the use of digital technology in vocabulary learning for students with different learning styles. With a smaller sample size, the researcher can explore students'

experiences and views in more detail and depth and manage data collection and analysis more effectively. In addition, this sample selection made it possible to perform several steps on the research instrument, including field observations in the classroom and asking some questions through questionnaires and more intensive interviews, thus increasing the validity and reliability of the research findings.

D. Focus on the Research

The focus of this research centers on digital technologies used in vocabulary learning for EFL students and identifying the adaptation of digital technologies to different learning styles of EFL students in vocabulary learning at SMPN 44 Semarang.

E. Methods of Collecting Data

The researcher chose several data collection techniques according to the selected data research method. In this case, the researcher collected the data based on the following methods:

1. Classroom Observation

Observation is defined as the process of gathering open-ended, firsthand information by observing people and places at a research site (Creswell, 2012). In this study, the researcher conducted classroom observations with a predetermined school. The research participant in this observation activity is one class that follows the English language subject at SMPN 44 Semarang.

In addition, the researcher also observed the learning activities in the eighth-grade English class directly. Thus, from this observation, the researcher obtained concrete and relevant data.

2. Students' Questionnaires

Nasution explains that the questionnaire is a list of questions that are distributed to be filled in and returned/answered under the supervision of the researcher (Nasution, 1996). The criteria for students taken as data sources are students who attend English classes at SMPN 44 Semarang for at least one semester, so the data will be more accurate because students have experienced classroom learning using “the use of digital technology as media in vocabulary learning” for at least one semester of study. The researcher chose one class, so the researcher distributed questionnaires to 25 eighth-grade students of SMPN 44 Semarang.

The researcher used the questionnaire to get information about students' learning styles and also to find which students' learning styles are appropriate for using digital technology as a media in learning English vocabulary.

3. Student's Interview

The interview is one way of collecting data which is done by obtaining information through several questions asked to the informants (Moleong, 1989). The researcher chose

interviews to get more information about students' preferences in using digital technology in vocabulary learning towards the suitability of learning styles that students already have.

The researcher used semi-structured interviews with 4 students selected by purposive sampling. The researcher prepared several question instruments that were asked of the informants. The researcher chose one student in each learning style, so the researcher interviewed one student with a visual learning style, one student with an audio learning style, one student with a read-and-write learning style, and one student with a kinesthetic learning style.

F. Research Instruments

Research instruments are needed to collect data. The data collection instruments used by researchers in this study aim to make data collection systematic and easy. In this study, the research instruments used observation, questionnaire, and interview. The explanation of the instruments in data collection is as follows:

1. Observation guidelines.

In this study, the researcher became a participant as well as an observer. There were several aspects that were observed, namely the kinds of digital technology used in vocabulary learning, besides that there were also several supporting items such as the kinds of digital technology media used, materials, stages, and student feedback. Each aspect was developed into an observation guideline.

a. Participants' observation

Participants' observation is a method of data collection used to collect research data through observation which the research involved in the daily life of the research object.

b. Unstructured observation

Unstructured observations are the observations act without using observation guidelines. The researcher will develop the observation based on the developments that occur in the field.

c. Group observation

Group observation is an observation made by a group of research teams on the issues that are raised as the object of the research.

In this study, the researcher used participant observation. The researcher observed the daily vocabulary learning activities at SMPN 44 Semarang. The researcher conducted observations for three weeks starting from October 1, 2024 - October 18, 2024, to obtain data in the field. The indicators observed by researchers in the object field are:

Table 3. 1 Observation guideline

No.	Times	Indicators
		Kinds of Digital Technology Media Used by Students in Vocabulary Learning
1.	Day one (Meeting 1)	<ul style="list-style-type: none">• Digital media technology used during classroom learning• Material presented by the teacher• Student feedback on the material presented
2.	Day two (Meeting 2)	<ul style="list-style-type: none">• Digital media technology used during classroom learning• Material presented by the teacher• Student feedback on the material presented
3.	Day three (Meeting 3)	<ul style="list-style-type: none">• Digital media technology used during classroom learning• Material presented by the teacher• Student feedback on the material presented
4.	Day four (Meeting 4)	<ul style="list-style-type: none">• Digital media technology used during classroom learning• Material presented by the teacher• Student feedback on the material presented

5.	Day five (Meeting 5)	<ul style="list-style-type: none"> • Digital media technology used during classroom learning • Material presented by the teacher • Student feedback on the material presented
6.	Day six (Meeting 6)	<ul style="list-style-type: none"> • Digital media technology used during classroom learning • Material presented by the teacher • Student feedback on the material presented

From the table above, the researcher made a report of daily observations in a week. The report of the observation will serve in narration in each day.

2. Questionnaires guideline

According to Nasution, questionnaires is a list of questions that distribute to fill by the respondece that was choose by the researcher (Nasution, 1996).

Subsequently, the researcher provided two questionnaires to answer the second research problem in this study “How can digital technology be adapted to students' different learning styles in vocabulary learning?”. In the first questionnaire, the researcher asked about the students' learning styles according to the theory described in chapter two as well as

students' interest in one of digital technologies used in vocabulary learning.

Table 3. 2 Questionnaire guideline

No.	Kinds of Learning Styles	Theory	Indicators
1.	Visual	<ul style="list-style-type: none"> • VARK, Fleming (2001) 	<ul style="list-style-type: none"> • Students are more interested in design and visual features
2.			<ul style="list-style-type: none"> • Students are more interested in watching videos or movies as a source of information
3.			<ul style="list-style-type: none"> • Students are more interested in creating diagrams, charts, tables and graphs to explain information
4.			<ul style="list-style-type: none"> • Students are more interested in using visual aids to explain information.
5.	Audio	<ul style="list-style-type: none"> • VARK, Fleming (2001) 	<ul style="list-style-type: none"> • Students are more interested in listening to sounds, music from smartphones or radios to help retain memories

6.			<ul style="list-style-type: none"> • Students are more active in speaking during discussions
7.			<ul style="list-style-type: none"> • Students are more interested in reading aloud to reinforce memories.
8.			<ul style="list-style-type: none"> • Students understand better when listening to the material through the teacher's explanation
9.	Read - Write	<ul style="list-style-type: none"> • VARK, Fleming (2001) 	<ul style="list-style-type: none"> • Students are more interested in writing than anything else.
10			<ul style="list-style-type: none"> • Students are more interested in creating a scientific paper such as an essay, article, paper, or report through writing either in a book or online book website.
11.			<ul style="list-style-type: none"> • Students have a preference for texts as a source of information.
12.			<ul style="list-style-type: none"> • Students are more interested in rewriting and

			summarizing information to strengthen understanding and recall.
13.	Kinesthetic	<ul style="list-style-type: none"> • VARK, Fleming (2001) 	<ul style="list-style-type: none"> • Students are more interested in learning through direct experience and hands-on activities.
14.			<ul style="list-style-type: none"> • Students are more interested in learning using multiple senses e.g., sight, touch, taste, smell
15.			<ul style="list-style-type: none"> • Students are more interested in learning by observing others and imitating their actions.
16.			<ul style="list-style-type: none"> • Students are more interested in doing physical activities and hands-on practice as the main way of understanding information

From those tables of guidelines, the researcher applied it into the object research and practice it to the informant. And the result of the information served in the description, because the method of this research was descriptive research.

3. Interview guideline

For the interview guideline, according to Dina Wahyuni, there three types of interview, those were:

a. Unstructured interview

Unstructured interviews is having several characteristics such as non-standardize, informal, and focused interview start with the general questions of the research. This kind of interview usually follows by a keyword, agenda or list of the topic that asked in the interview.

b. Semi-structured interview

Semi structure interview starts with the issues of the problem that will be asked in the interview and will be the interview guidelines. The sequence of question is not same for each participant. But the interview guidelines may collect the same type of the data from the participants.

c. Structured interviews

Some limitation of this type of interview make the data obtain not rich. The interview guidelines contain a number of pre-planned questions. Each participant asked with the same question in the same order.

In this study, researchers conducted interviews with students with visual, audio, read and write and kinesthetic learning styles. The researcher used semi-structured interviews with the following indicators.

Table 3. 3 Interview guideline

No.	Variable	Aspect	Indicator
1.	Students' Learning Styles that are Compatible with Digital Technology Used in Vocabulary Learning Activities	Participation in Technology-Based Learning	Students' participation in using digital technology in vocabulary learning in the classroom
2.		Technology(Mayer, 2009)Preferences Based on Student Learning Styles	The type of technology preferred by students according to learning style.
3.		Experience the ease of understanding vocabulary learning based on the kinds of digital technology used	Students' ease of understanding vocabulary by using digital technology.
4.		Students' ease of understanding vocabulary by using digital technology.	The feedback students get on the use of digital technology and the suitability of digital technology used with students' learning styles.

From those tables of guidelines, the researcher applied it into the object research and practice it to the informant. And the result of the information served in the description, because the method of this research was descriptive research.

G. Method of Analysing Data

In the research, the researcher used the method of analyzing data from Miles, Huberman, John (Miles et al., 2014) that was divided the method of analyzing data into three parts, those are:

1. Data Condensation

Data condensation involves summarizing, selecting key points, focusing on the important things, and looking for trends and themes. As a result, the condensed data will give a clearer picture and make it simpler for researchers to gather and find additional data if necessary. In reducing data, each researcher is guided by the goals to be achieved. In this study, the researcher reduced data from informants by using direct observation, Google Forms to get complete questionnaire answers, and interviews conducted face-to-face. Relevant data will be selected from the data set. For the process of presenting relevant data, it is arranged in accordance with the formulation of problems and research objectives. Then the data is summarized and takes the focus of important information from informants.

2. Data Display

The next step is to display the data. In qualitative research, data presentation can be done in the form of brief descriptions, charts, relationships between categories, flow charts, and so on. In this research, there were several data displayed in tables. The researcher used to display data in a table because it is easier to analyze and understand.

3. Drawing and verifying conclusions

The last step in qualitative data analysis is drawing conclusions and verification. After conducting research, the researcher analyzed the data, the last part to conclude the data. The researcher summarized the types of digital technology used in vocabulary learning activities and categorized digital technology media according to students' learning styles in vocabulary learning activities.

H. Validity of Data

Validity is one of the strengths of qualitative research and is based on determining whether the findings are accurate from the standpoints of the researcher, the participants, or the readers of an account. Terms abound in the qualitative literature that addresses validity, such as trustworthiness, authenticity, and credibility (Creswell and Miller, 2000)

This research used triangulation, kind of triangulation used was a triangulation of method. Triangulation of the method is done

by collecting data with other methods (Creswell and Creswell, 2017).

As is well known, researchers employ questionnaires, interviews, and observation in qualitative research. Researchers employ these techniques to get accurate data and a comprehensive view of the data. To verify the truth, researchers compare the findings from observations and interviews. It is intended that by using different perspectives, the outcomes will be as close to the reality as possible. By comparing data that was gathered from the same source using several techniques, the triangulation approach is used to assess the reliability of data.

CHAPTER IV

FINDINGS AND DISCUSSION

In this chapter, the researcher presents the research results. This chapter discusses the research findings and discussion, including the results of observations, questionnaires, and interviews with students about the use of digital technology in vocabulary learning for students with different learning styles.

A. Findings

RQ1: What digital technologies are used in vocabulary learning for EFL students?

1. Kinds of Digital Technology used by Students as Vocabulary Learning Media

After conducting observations for three weeks starting from October 1st, 2024 - October 18th, 2024, the researcher presents the data in tabular form and also explains it in narrative form. This data informs about vocabulary learning activities in the classroom at SMPN 44 Semarang. The data presented in Table 4.1, the table informs about the types of digital technology as media in learning English vocabulary with several supporting items such as the material taught, the media used, and student responses.

Table 4. 1 Daily Report of Digital Technology Media Used by Students in Vocabulary Learning

No.	Date	Class	Daily Report
			Kinds of Digital Technology Media Used by Students in Vocabulary Learning
1.	Tuesday, October 1, 2024	VIII	<ul style="list-style-type: none"> • The digital media technologies used: Smartphone, PowerPoint, DeepL (Online Dictionary) & Canva Application • Materials: Descriptive Text. Describe the competitions held during the Independence Day through posters or pictures. • Students feedback: Students were quite interested and excited when asked to make a digital poster about independence. In groups, students discussed and gave each other ideas related to design and color in making posters.

2.	Friday, October 4, 2024	VIII	<ul style="list-style-type: none"> • The digital media technologies used: Smartphone, PowerPoint, & Canva Application • Materials: Presenting the results of posters made by students • Students feedback: Most students were very excited to present the results of creating a digital poster about independence, especially when they described one by one the elements of the image on the poster. In addition, they also divided each student in the group in describing one by one the image. The descriptions from each student were very good although some were still looking at the text but it was good enough.
3.	Tuesday, October 8, 2024	VIII	<ul style="list-style-type: none"> • The digital media technologies used: Smartphone, Power Point, E-book & Article from web online

			<ul style="list-style-type: none"> • Materials: Narrative Text - Folk Stories • Students feedback: Students seem active and eager to listen to the material presented by the teacher. Students can explore some vocabulary in answering the pictures displayed by the teacher about various folktales. Students are also quite focused in finding reading materials about folklore either through articles, e-books or online webs.
4.	Friday, October 11, 2024	VIII	<ul style="list-style-type: none"> • The digital media technologies used: Smartphone, PowerPoint, Word Scramble by Word wall, & Google Drive. • Materials: Discussion and working on the LKPD Folk Stories in groups. • Students feedback: Students are very enthusiastic in answering word scramble games from the Word wall application in practicing

			<p>students' vocabulary insights. Students in groups are also quite active in discussing and working on LKPD to make a resume of folklore and answer LKPD questions using power point and Canva applications by looking for sources in articles and online webs and collecting them on the google drive provided by the teacher.</p>
5.	Tuesday, October 15, 2024	VIII	<ul style="list-style-type: none"> • The digital media technologies used: Smartphone, Movies on YouTube, & Word Office • Materials: Folk Stories: Watch the folktale movie titled Ugly Duckling and answer 5 questions. • Students feedback: Students are happy and excited when they are told that they will watch a folktale. Students seemed quite focused in listening and taking notes on the important points of the video. Students also learn to increase vocabulary understanding by mentioning

			verbs and adjectives in the movie. Students also actively asked the teacher about the words they did not understand.
6.	Friday, October 18, 2024	VIII	<ul style="list-style-type: none"> • The digital media technologies used: Smartphone, PowerPoint, Quizizz, & Word wall. • Materials: Language focus: Simple past tense. • Students feedback: Students are very enthusiastic and excited in playing the verb 2 game on the Word Wall. Students are quick in understanding the vocabulary of verb 2 and in making a sentence in the form of a verb. Students also participated in answering quizzes related to simple past-tense material conducive.

Researchers in English class VIII B made observations. The first day of observation began on Tuesday, October 1, 2024, the lesson started at 12.45 WIB until 14.05 WIB. The types of digital technology used in vocabulary learning in eighth grade are

smartphones, PowerPoint, Deepl (online dictionaries), and Canva applications. The material studied is descriptive text with the theme of describing Independence Day. Students in groups are asked to create a picture or poster using the canva application. Students describe English vocabulary through pictures. When there is difficulty in finding English vocabulary, they can use the online dictionary application on their respective smartphones. The feedback given by students when teachers apply this digital technology is that students look very enthusiastic and excited because students can express their vocabulary understanding through pictures or posters. They discuss with each other and give their ideas.

The second day of observation was held on Friday, October 4, 2024, learning starts from 10:00 to 11:05 WIB. The types of digital technology used in this lesson are smartphones, posters or images in the form of power point and canva. The material presented by the teacher in class VIII B is presentation. Students are asked to present the results of their posters or drawings. Students describe the poster with their own sentences by assembling through the vocabulary they remember. However, there are students who are still wrong in their pronunciation and word order. The feedback given by students when the teacher applies this digital technology is that students are excited to present their group results. However, there are also students who

are still shy. Students look quite confident in describing even though there are students who still read text on paper or smartphones.

The third day of observation was held on Tuesday, October 8, 2024, learning starts from 12.45 to 14.05 WIB. The types of digital technology used in this lesson are smartphones, images on power point, e-books and articles from the online web. The material presented by the teacher in class VIII B is Narrative text folklore. The feedback given by students when the teacher applies this digital technology is that students can explore some vocabulary in answering the pictures displayed by the teacher about various folklores. Students are also quite focused in finding reading material about folklore through articles, e-books and online webs.

The fourth day of observation was held on Friday, October 11, 2024, learning starts from 10:00 to 11:05 WIB. The types of digital technology used in this lesson are smartphones, power point, Canva applications, and word scramble by word wall, and google drive. The material presented by the teacher in class VIII B is discussing and working on LKPD. The feedback given by students when the teacher applies this digital technology is that students are very enthusiastic in answering word scramble games from the word wall application in training students' vocabulary insights. Students in groups are also quite active in

discussing and working on LKPD to make a resume of folklore and answer LKPD questions using power point and Canva applications by looking for sources in articles and online webs and collecting them on the google drive provided by the teacher.

Observation day five was held on Tuesday, October 15, 2024, learning starts from 12.45 to 14.05 WIB. The types of digital technology used in this lesson are smartphones, movies on YouTube, and word office. The material presented by the teacher in class VIII B was watching the ugly duckling folklore movie and recording information from the movie and answering 5 questions. The feedback given by students when the teacher applies this digital technology is that students look quite happy and excited when told that they will watch folklore. Students seemed quite focused in listening and taking notes on the important points of the video. Students also learn to increase their vocabulary understanding by mentioning verbs and adjectives in the movie. Students also actively asked the teacher about words they did not understand.

The observation on the last day was carried out on Friday, October 18, 2024, learning starts from 10:00 to 11:05 WIB. The types of digital technology used in this learning are smartphones, PowerPoint, quizzes, and word walls. The material presented by the teacher in class VIII B is Language focused on simple past tense. The feedback given by students when the

teacher applies this digital technology is that students are very interested and excited in playing the verb 2 game on the word wall. Students are quick in understanding the vocabulary of verb 2 and in making a sentence in the form of a verb. Students also participated in answering quizzes related to simple past tense material conductively.

These are the results of observations made by researchers at SMPN 44 Semarang. The results of the observations that have been made are presented in the form of tables and descriptions. Researchers present in the form of tables and descriptions so that readers can easily understand this research.

RQ2: How can digital technology be adapted to students' different learning styles in vocabulary learning?

2. Students' Learning Styles that are Compatible with Digital Technology used in Vocabulary Learning Activities

The researcher distributes questionnaires to grade 8 students who participate in English classes. The researcher presents the data in tabular form and explains it descriptively. In this study, the researcher used the VARK Language Learning Styles Questionnaire, which was adopted from the VARK Learning Styles Questionnaire version 8.01 and downloaded from the VARK official website. The questions were matched with the questionnaire instrument that had been developed by the researcher. The questionnaire provides 16 questions with four

answer options (A, B, C, and D) that students can answer with more than one answer, as well as a scoring rubric. The highest score from the questionnaire is the learning style most favored by the students. Therefore, they learn best with their preferred learning style.

The researcher selected 25 students in one of the eighth-grade classes to complete the questionnaire. After that, the researcher analyzed the data and presented it in a table, besides that the researcher also gave conclusions using descriptive data about students' learning styles. The following is the data on students' learning styles:

Table 4. 2 Student's Learning Styles

No.	Code	Class	Learning Styles				Result
			V	A	R	K	
1.	S1	VIII	4	4	5	3	Read - Write
2.	S2	VIII	2	5	3	6	Kinesthetic
3.	S3	VIII	4	3	2	7	Kinesthetic
4.	S4	VIII	7	6	1	2	Visual
5.	S5	VIII	1	8	4	3	Auditory
6.	S6	VIII	2	5	7	2	Read - Write
7.	S7	VIII	2	3	5	6	Kinesthetic
8.	S8	VIII	6	5	1	4	Visual
9.	S9	VIII	5	4	3	4	Visual
10.	S10	VIII	5	3	6	2	Read-Write
11.	S11	VIII	3	9	1	3	Auditory
12.	S12	VIII	5	4	3	4	Visual

13.	S13	VIII	2	10	1	3	Auditory
14.	S14	VIII	3	4	5	4	Read-Write
15.	S15	VIII	9	3	1	3	Visual
16.	S16	VIII	3	7	3	3	Auditory
17.	S17	VIII	3	3	7	3	Read-Write
18.	S18	VIII	4	6	4	2	Auditory
19.	S19	VIII	7	2	6	1	Visual
20.	S20	VIII	5	4	4	3	Visual
21.	S21	VIII	3	3	4	6	Kinesthetic
22.	S22	VIII	3	4	5	4	Read - Write
23.	S23	VIII	6	2	4	4	Visual
24.	S34	VIII	3	7	3	3	Auditory
25.	S25	VIII	6	4	3	3	Visual

Based on data from 8th-grade students of SMPN 44 Semarang who have several different preferences. After distributing questionnaires and analyzing the data, the researcher was able to find that there were 25 students who had a unimodal learning style, namely, Visual: 9 students, Auditory: 6 students, Read and write: 6 students, and Kinesthetic: 4 students. From the results of the data that has been found, it can be concluded that most of the students' learning styles are visual styles.

After knowing the results of students' learning styles, researchers identify which digital technology is more attractive and appropriate based on students' learning styles that are already known. Researchers display the results of interviews with students.

According to the sampling technique used by researchers in this study, researchers one student from each student with visual, audio, read and write, and kinesthetic learning styles. Four students are informants. The following students are informants.

Table 4. 3 Informants Information

No.	Name	Student's Learning Styles	Class
1.	Auva Favian Ramadhan	Visual Learners	VIII B
2.	Wilujeng Nur Ayiyah	Auditory Learners	VIII B
3.	Fernanda Nina Amelia	Read-Write Learners	VIII B
4.	Anas Ibadurrahman	Kinesthetic Learners	VIII B

Researchers conducted interviews on October 29th, 2024. The interview questions were in accordance with the researcher's interview guidelines. The questions asked and the answers from the interview informants are in Appendix 2.

Based on the results of the interview, the researcher concluded that most students in class VIII B stated that using various kinds of digital technology as a vocabulary learning media can help the learning process and is in accordance with their learning style because it is felt to make it easier and more efficient to increase students' understanding and ability to explore English vocabulary. Many students' preferences for digital technology media are used in learning English vocabulary in

class VIII B, which are then adjusted to the learning styles that students already know.

First, the researcher found that all students actively participated in vocabulary learning in class using digital technology. This data was found through the question of whether you participated in vocabulary learning in class using digital technology.

One of the students said, “Yes, I participate and follow English Vocabulary learning activities using various digital technologies such as ppt, YouTube videos, online dictionaries, wordwall, quiz, and others.”

From the answers above, it can be said that all students participate and actively participate during vocabulary learning by using various kinds of digital technology media.

Secondly, the researcher found various opinions regarding what digital technology media are of interest based on students' learning styles that are already known.

Auva Favian Ramadhan, a student with visual learning style said, “I prefer to learn with the help of YouTube. Because there is a lot of interesting content and I often watch it, for example, watching western movies, watching animated videos, watching video tutorials on how to become a public speaker and watching videos of foreign boxing. because YouTube can make it easier for me to learn English vocabulary. Not only vocabulary

but also speaking, pronunciation, grammar, etc. Besides I like learning with the help of YouTube, I also like to search for anything on Google, TikTok, Twitter, and Instagram. Because with the help of some of these media, I can get some new English words and it becomes easier to remember because they often appear and are read involuntarily.” Based on the answers of students with visual learning styles above, they have a preference for vocabulary learning by utilizing digital technology media such as videos on YouTube, educational animated videos, and video tutorials on YouTube that provide real visualization of the material. Content such as movies and animated videos support learning by providing direct examples of the use of English in various situations. However, there are some media that students are interested in such as social media on Instagram and TikTok. By using several digital technologies such as YouTube videos, educational animated videos, and video tutorials, students can show that visual media makes it easier to master vocabulary and train their speaking skills.

With its visualization and subtitle display, video is an effective tool for visual learners. This element helps students process information through the text while hearing the pronunciation, strengthening listening and reading skills simultaneously and helping students with visual learning styles to understand and imitate the pronunciation of words better. So

that the technology media used is appropriate and suitable for visual learning style students. Based on information from informants, it can be concluded that students with visual learning styles are more suitable for using digital media technology in the form of videos, movies, video tutorials, and animated videos.

Wilujeng Nur Aiyah, Students with audio learning style said, “I prefer learning using songs from Spotify music, listening to podcasts and interactive discussions. Because it is easier for me to capture new vocabulary through song lyrics that I often hear and sing. And also through podcasts from YouTube and interactive discussions from YouTube, I gradually understand what is being discussed without seeing subtitles. If I'm confused about what it means, I can immediately look at the subtitles.”

Next, according to students with audio learning styles, their learning preferences are using songs from Spotify music, listening to podcasts, and interactive discussions from YouTube. Because it makes it easier for students to capture new vocabulary through song lyrics that are often sung to train pronunciation to be even better. Through podcasts and interactive discussions, students gradually understand what is being discussed without seeing subtitles to train mastery of vocabulary selection, speaking, and listening. Fernanda Nina Amelia, a student with a read n write learning style said, “I feel comfortable learning with the help of interactive quizzes, Google Assistant or AI and online

dictionaries. With the quiz I am more in the mood to do the questions, because the features and appearance are interesting and it is also easy to remember the vocab in the questions and answers. With the help of google assistant or AI chat GPT I can read articles, search for articles or something I am looking for quickly and easily. With the online dictionary, it is easier for me to translate, look up vocabulary and practice the pronunciation I need”.

From the interview answers above, students with a read and write learning style have a preference for using digital technology in the form of interactive quizzes, AI, Google Assistant, and online dictionaries. With the interactive quiz, students can practice their skills in English, as well as with the help of Google Assistant or AI chat GPT and online dictionary, deep students can read articles, and search for articles or something they are looking for quickly and easily. So that students become comfortable learning and are helped and easier to remember every vocabulary and pronunciation.

Annas Ibadurrahman, a student with a kinesthetic learning style said, “I prefer to learn by directly practicing it like with the help of games in the word wall or dualingo application. Because from word wall or dualingo I can play fun games, for example, rich games to string English vocabulary or sentences and guess the vocabulary and pronunciation or speaking games

and others. By using it I am easier to remember and memorize English vocabulary. I also like to practice English directly such as in drama performances or conversation practice in class. Using roleplay explores new vocabulary directly”.

According to students with kinesthetic learning styles, they prefer to use digital technology in the form of learning by directly practicing it such as with the help of games in the wordwall application, presentations, and drama or roleplay. Because in the wordwall there are games that make students more enjoy and excited about learning. For example, games such as stringing English vocabulary or sentences, guessing vocabulary and pronunciation, and others. Thus students master vocabulary more and train the accuracy of pronunciation and the arrangement of vocabulary. As for using presentations with power point or roleplay on drama or conversation practice, students can explore new vocabulary directly and start to imitate and remember it.

Third, the researcher found data on the use of digital technology as a learning media can facilitate students in learning to understand English vocabulary. All students said that the use of digital technology is very helpful and makes it easier to learn to understand English vocabulary.

Auva Favian Ramadhan, “Yes, it is very helpful because it is very easy to understand on its own and I enjoy learning”

Student 1 said that the use of digital technology can help and facilitate learning to understand English vocabulary. In addition, students also enjoy learning vocabulary.

Wilujeng Nur Aiyah, “Yes, it is very helpful because it trains me more in memorizing, reading, and imitating English with the lyrics of the songs I listen to.”

Student 2 said that the use of digital in vocabulary learning is very helpful. Because it can train in several aspects of vocabulary mastery through song lyrics and podcasts that are often heard so that students are easier to memorize and imitate both the pronunciation of vocabulary and accents correctly.

Fernanda Nina Amelia, “Yes, it is very easy. Because it is easy to access by searching it on Google and others, I can immediately find what I want. then immediately read or write it down so that it is easier to digest and easy to remember.”

Student 3 said that the use of digital in vocabulary learning makes it easy. Students can easily access from Google and other platforms what they want to find. In addition, students learn by reading and taking notes to make it easier to understand and remember vocabulary material.

Annas Ibadurrahman, “Yes, it is quite helpful. Because it makes it easier to learn English vocabulary. So I can learn by

myself at home or anywhere and with the game I become more interested and not easily bored.”

Student 4 said that the use of digital vocabulary learning is quite helpful because it makes it easier to learn English. In addition, with the help of games through word wall and so on, students become more excited and not easily bored and can also learn by themselves not only in class.

According to them, learning by using digital technology that is tailored to their learning style can improve and make it easier to understand how to pronounce, how to master vocabulary such as pronouns, nouns, verbs adjectives, and adverbs, and how to speak and listen better. So that students feel suitable and not easily bored.

Lastly, the researcher found that students can receive feedback from vocabulary learning using digital technology and its suitability for each student's learning style.

Auva Favian Ramadhan “I think there are many benefits of technology-based learning because English Vocabulary material can be accessed more easily and more instantly. It is by my learning style that I prefer to learn by watching or something else that can be seen and heard. Because YouTube can make it easier for me to learn English vocabulary. Not only vocabulary but with speaking, pronunciation, grammar, and others.”

Wilujeng Nur Ayyiah, “Yes, it is very helpful because it trains me more in memorizing, reading, and imitating English with the lyrics of the songs I listen to.”

Fernanda Nina Amelia, “It was very helpful and helped me to look up something difficult. Yes, it's very suitable since I love reading.”

Annas Ibadurrahman, “Yes, it suits my learning style. Through various technologies in English learning, I can memorize more verbs 1, 2, and 3 and some adjectives.”

Based on the interview results above, it can be said that all students said that they can maximally receive feedback from vocabulary learning using digital technology. Such as more active participation and more excited in learning. As for the suitability, students with visual, audio, read and write, and kinesthetic learning styles agree that the use of digital technology in vocabulary learning is in accordance with their learning styles.

According to the data presented by the researcher, students with varied learning styles have preferences for digital technology used in vocabulary learning. Thus, students with different learning styles are in accordance with the use of digital technology in vocabulary learning.

From the data explaining the types of digital technology used as media in English vocabulary learning was conducted through classroom observations for three weeks and conducting

interviews with students. Researchers triangulate to gain confidence in this research. In accordance with the validity of the data chosen by the researcher, namely triangulation of methods, the researcher will compare the results of observations with interviews. In the observation, the researcher found that in class VIII B students use some digital technology as media in vocabulary learning. For example, smartphones, PowerPoint, digital dictionaries, Google Assistant or AI, movies on YouTube, interactive games and interactive quizzes, songs on Spotify, and games in word wall. In addition, researchers also obtained data on the material learned and feedback from students. Another finding came from student interviews, in this interview the researcher obtained information about the types of digital technology used in class which were also of interest to students. Therefore, from the findings sought by these different methods, the researcher can conclude that the data can be trusted because the data obtained by various methods are the same.

B. Discussion

In this section, the researcher presents the answers to the research questions that aim to answer the problem formulation: 1) to describe what digital technology students use in vocabulary learning, and 2) to identify the appropriate use of digital technology based on students with different learning styles. In this section, the

researcher relates the findings from previous studies related to this study. Further explanation is given below.

1. Kinds of Digital Technology used by Students as Vocabulary Learning Media

To get the results of the first research question, namely describing the kinds of technology used in vocabulary learning, the researcher used the research instrument, namely observation. The researcher explained the results of observation data in the previous section. The following is a discussion of the results of the initial problem formulation.

Based on the results of observations, researchers found that there are various kinds of digital technology used by students in vocabulary learning. In the discussion related to the findings of this study, students use the types of digital technology used in vocabulary learning namely, smartphones, power points, Deep L (online dictionaries), canvas applications, posters or images, and e-books and articles from the online, google or AI, scramble by word wall, and google drive, movies on YouTube, word office, and quizzes.

This finding is in line with previous research by Luthfiyyah et al. (2021) found the types of technology used for English language learning. Just like in this study Luthfiyyah et al. (2021) It reported that technology types are generally classified into four categories: mobile learning applications,

game-based applications, web-based applications, and social media. This technology is used as a tool to assist learning activities, practice, student tags, assessment, and delivery of material.

Hermagustiana & Rusmawaty, (2018) explain their findings that technology supports EFL teachers in several ways, such as the use of digital dictionaries, the internet, and PowerPoint presentations as teaching media. The digital technology used to teach vocabulary in the classroom is considered by EFL teachers as one of the supporting factors in vocabulary teaching. According to him, teaching vocabulary entails not just providing word definitions through teaching tactics, paper-based dictionaries, or other vocabulary textbooks, but also a variety of technological gadgets designed to boost students' vocabulary understanding. Previous researches found that EFL teachers preferred to employ technology, such as the internet, to complement their vocabulary teaching approaches.

In addition, students also provide feedback on digital technology used in vocabulary learning. Based on the results found, the researcher found that some students actively participate and respond well to vocabulary learning using digital technology. Students are involved and provide feedback directly on how students can use these types of technology as a tool to assist in learning, doing assignments, finding a reading or other,

and listening to the material presented. The vocabulary material in vocabulary learning includes text description and narrative text which is specific about parts of speech, words, verbs, adjective, pronunciation, listening, and reading vocabulary through watching movies listening to music reading articles, textbooks or online dictionaries.

Huseinović, (2022) It also adds that there is a strong preference for technology-assisted learning where participants mainly choose videos as learning media, followed by voice recordings, music, podcasts, and language use practice with native or highly proficient speakers. Therefore the use of a wide variety of digital technologies can help make vocabulary learning more interesting and easier. As said Hao et al., (2021) through their research explained the total impact of technology-assisted L2 vocabulary learning is significant, indicating that it is more useful than non-technology-assisted learning. Importantly, the study's comparison findings suggest that technology can help learners enhance their long-term language retention. The moderator analysis revealed that various variables, including device type, game settings, environment, test format, and claimed reliability, influence the effectiveness of vocabulary learning. These characteristics should be considered when designing teaching for technology-assisted L2 vocabulary development. Advantages were discovered for mobile devices and learning on

the fly, implying that L2 vocabulary learning may be the most efficient. This discussion emphasizes the types of digital technologies used by students in vocabulary learning, the materials in vocabulary learning and the feedback given by students in using various digital technologies in English language learning.

2. Students' Learning Styles that are Compatible with Digital Technology used in Vocabulary Learning Activities

To get the results of the first research question, the researcher used two instruments, which are to identify the adjustment of digital technology with different learning styles of EFL students in vocabulary learning, the researcher used two research instruments, namely questionnaires and interviews. The researcher presented the results of the questionnaire and interview data in the previous section. The following is a discussion of the results of the second problem formulation.

Based on the results of the questionnaire, all statements received different answers from participants. There were 16 questions with 4 different answer choices each. The four answer choices are answers that show visual, audio, read-write, and kinesthetic learning styles. This research is in line with the theory (Fleming, 2001), which divides learning styles into four categories. Visual learners, audio learners, read-write learners, and kinesthetic learners. This is similar to previous research

(Qomariyah, 2023), in her research explaining that to classify students with certain learning styles using the Vark version 8.0questionnaire adapted by learning style theory (Fleming, 2001)

Researchers found that students who choose a visual learning style prefer to learn knowledge in the form of designs and visual features, are more interested in drawing when explaining something, desire to use maps, charts, graphs, symbols, diagrams, brochures, underline flow charts, and different colors in learning, as well as other devices used to represent something presented in words. This is similar to the previous researcher's explanation. (Dehghani & Branch, 2021) explains that it was found that some students are more interested in learning with things related to visualization, such as pictures, videos, charts, diagrams, and other tangible forms that can be seen. So they can be referred to as students with a visual learning style. In addition, students with visual learning styles learn more effectively by using vision and other forms of visualization. Thus it is important for students to be aware of their learning style preferences.

Then some students who choose audio learning style because they prefer to learn knowledge by listening to others or from certain audio rather than searching or reading in books. For example, learning by listening to music or other audio, learning

by discussing, telephone chats, oral presentations in class, tutorials, and talking with others.

In addition, some students might select the read-write learning method because they like taking notes, writing essays and reports, or reading books and websites. They also like to reword concepts and ideas and then read them often to commit them to memory. Students therefore favor using books, handouts, or anything else that has text on it. The findings of current studies on vocabulary acquisition using technology support this assertion.

Research by (Xodabande & Atai, 2020) shows that technology-based learning tools, such as digital apps and electronic note-taking methods, provide great advantages in improving vocabulary acquisition. One of the main strengths of this method is its flexibility and accessibility, which allows students to record vocabulary anytime and anywhere. The use of digital applications, such as online dictionaries or flashcard-based software, also supports the application of spaced repetition techniques that have proven effective for long-term retention.

Next, some students choose kinesthetic learning style because they prefer to learn by doing physical movements and connecting with reality, through experiences, examples, practices, games and simulations by doing it directly, and prefer to use real examples to explain things. This statement about

learning styles is also in line with previous research (Shah et al., 2013). According to him, the learning style of each individual is different and so are the students with various learning styles in his class. Knowing the existence of students' preferred learning styles can help overcome educators' tendency to treat all students in the same way. And help students more effectively both inside and outside the classroom, if we know their learning styles and can help them in determining their preferences.

Then after knowing students' learning styles, researchers discussed the results of the study using interviews. In this discussion, students with visual, audio, read-write, and kinesthetic learning styles are adapted to the use of digital technology in vocabulary learning. The interview answers also support the answers from the questionnaire, students express the suitability of using digital technology in vocabulary learning to the learning style that each student has. Based on interviews with students in class VIII B, the majority of students stated that they participated in vocabulary learning by using various digital technologies. Such as smartphones, PowerPoint, YouTube, quiz games, word wall games, and Google Assistant. The use of digital technology provides an interactive learning experience and suits individual needs. This finding supports the concept of Multimedia Learning by (Mayer, 2009), which explains that the

integration of visual, text, and audio elements in learning media can improve understanding and retention of information.

Second, the interest of students with visual, audio, read-write, and kinesthetic learning styles with digital technology used in vocabulary learning. Of course, each student of a particular learning style has different preferences as well as the VIII grade students who take vocabulary learning classes. Based on the known learning styles, students with visual learning styles stated that they prefer to learn using digital technology through visual media such as video tutorials, educational animations, or English movies on YouTube because videos equipped with subtitles make it easier to understand new vocabulary while practicing pronunciation and speaking skills. According to Auva, YouTube videos not only help in vocabulary acquisition but also improve speaking and grammar skills. This finding is relevant to the research (Mayer, 2009), which shows that visual elements in learning media can strengthen students' understanding through the integration of text, audio, and images. Mayer, (2009) explains that visualization accompanied by text helps students process information through multiple channels, strengthening understanding through the merging of audio and visual. This allows them to understand new vocabulary while practicing pronunciation and speaking skills.

Meanwhile, students with auditory learning styles are more comfortable learning through songs on Spotify, podcasts, and interactive discussions on YouTube. Students with auditory learning styles explained that listening to song lyrics helps them memorize vocabulary and practice pronunciation better. This finding is consistent with the results of the research Pourhosein Gilakjani & Ahmadi, (2011), which shows that auditory learners more effectively understand material through sound-based media.

In addition, for students with reading and writing learning styles, technology such as interactive quizzes, Google Assistant, and online dictionaries are very useful tools. Fernanda Nina Amelia explained that interactive quizzes are not only interesting but also make it easier to understand vocabulary through practice questions. This finding supports the results of the research (Shah et al., 2013), which found that students with reading and writing learning styles prefer text-based media to read and rewrite information as a way to memorize. It is also consistent with research (Hermagustiana & Rusmawaty, 2018), which found that technologies such as the Internet and digital dictionaries support effective vocabulary teaching in EFL classrooms.

In addition, game-based technologies such as Wordwall and other interactive learning applications allow students to learn

through a more fun approach. This finding also supports the results of a study (Luthfiyyah et al., 2021), which showed that game-based applications such as Wordwall increase students' engagement in vocabulary learning. In this study, students with kinesthetic learning styles revealed that interactive games helped them remember vocabulary more easily. Students with kinesthetic learning styles mentioned that learning by using digital technology such as games on wordwall such as stringing words or guessing vocabulary made learning more interesting and fun. This is by the theory (Fleming, 2001), which states that kinesthetic learners learn more effectively through hands-on practice and movement.

Third, the ease of learning vocabulary with the help of digital technology. The interview results also show that students feel the use of digital technology makes them more active and engaged in learning. According to students, these technologies not only make access to learning materials easier but also provide a more engaging learning experience. For example, kinesthetic students felt games like Word wall encouraged them to study independently at home, while visual students thought YouTube videos helped them understand the context of vocabulary used in real situations. The results of this study found that the use of digital technology tailored to students' learning styles can increase learning engagement and motivation. This finding is

supported by (Bond & Bedenlier, 2019), who explained that technology can facilitate student engagement through interactive and adaptive media. In their study, a conceptual framework was developed to show how technology can encourage active participation, both individually and collaboratively, especially when the technology is tailored to students' needs and learning styles.

For example, in this study, students with visual learning styles preferred media such as video tutorials or English movies, and students with kinesthetic learning styles preferred game-based applications such as Word wall. Therefore, it is important for adaptive technology to support diverse learning styles, leading to increased intrinsic motivation and student engagement

In addition, the results of this study are consistent with other findings showing that technology-based learning, such as the use of interactive quizzes, or live simulations, encourages students to engage more actively in the learning process. Their research highlights that the use of technology provides opportunities for a more inclusive learning experience, especially for students with different learning needs.

Finally, the feedback obtained from the use of digital technology in vocabulary learning the suitability of students with the use of digital technology in vocabulary learning on their learning style. Feedback from students showed that they felt the

digital technology suited their needs. All students agreed that the technologies used in vocabulary learning, such as videos, podcasts, interactive quizzes, and games, helped them master vocabulary better. For example, students with audio learning styles felt that songs and podcasts not only help memorize vocabulary but also practice correct pronunciation and accent. Students also revealed that the use of technology in vocabulary learning suits their learning styles.

This supports Hattie & Timperley (2007) research, which emphasizes the importance of feedback in improving learning outcomes. Overall, the results of this study reinforce previous findings that digital technology makes a great contribution to English vocabulary learning. However, its successful implementation depends on adapting the technology to students' learning styles. With a better understanding of students' individual needs, teachers can maximize learning potential and create a more inclusive and engaging learning experience. This research also shows that digital technology used in vocabulary learning is suitable for their respective learning styles. In addition, digital technology is not only a tool but also an effective learning tool to meet the needs of students with diverse learning styles.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

This chapter is the last chapter of this study. In this chapter, the author presents research conclusions based on the data analysis discussed in the previous chapter and provides suggestions for teachers, students, and future researchers related to the use of digital technology in vocabulary learning for students with different learning styles.

A. Conclusions

After conducting research and analyzing data on the use of digital technology in vocabulary learning among EFL students with different learning styles, the researcher provides some conclusions from this study. Through descriptive qualitative research involving classroom observation, distributing questionnaires and student interviews. This study revealed the types of technology used by students in vocabulary learning and students' suitability for using digital technology for different learning styles in vocabulary learning.

1. The use of many kinds of digital technologies demonstrates that vocabulary learning requires digital technology to facilitate students' comprehension. The usage of digital technology demonstrates how crucial it is to use technology to enhance vocabulary development. Smartphones, PowerPoint, online dictionaries, Word wall, YouTube videos, word office, image or

digital posters, articles on the web, Google Assistant, Google Drive, and Canva apps are a few examples of the technology that students utilize to learn new words. By using these technologies, it shows that learning is effective and able to improve students' ability to understand and master vocabulary in depth.

2. Based on the results of data analysis, all students with visual, audio, read-write, and kinesthetic learning styles are suitable for the use of digital technology in vocabulary learning. Each student with different learning styles has a preference for digital technology used according to their learning style. The researcher concluded that students with visual learning styles are more suitable to learn by using digital technology media in the form of digital posters or images, video tutorials, animations, English movies with subtitles on YouTube and social media platforms such as Instagram, and TikTok in learning English vocabulary. Meanwhile, students with audio learning styles are more suitable for learning by using digital technology media in the form of songs on YouTube and Spotify, interactive podcasts from TikTok and Spotify, and webinar discussions through Zoom in learning English vocabulary. Furthermore, students with a read-and-write learning style are more suitable for learning by using digital technology media in the form of interactive quizzes, AI, Google Assistant, and

online dictionaries in vocabulary learning. Finally, students with kinesthetic learning styles are more suitable to learn by using digital technology media in the form of games such as the word wall application, interactive presentation practice with PowerPoint, and drama or roleplay practice with video or audio.

B. Suggestions

Based on the results, discussion, and conclusion of this study, the researcher realizes that this study is far from perfect. For students with varying learning styles, we expect that this study will yield useful information regarding the use of digital technology in vocabulary learning. The researcher can propose the following ideas:

1. For the researcher

The first research that has been completed by the researcher will hopefully motivate researchers to conduct further research with a wider variation of research time so that researchers can provide more information on other themes and of course with better quality in further research. more quality in further research.

2. For students

This research informs participants about the use of digital technology that they can use for vocabulary learning that suits each student's learning style. The aim of this research was

to benefit more than one school, hence the researcher also asked the participants to share their knowledge with other students from different schools.

3. For teachers

This research provides information about student engagement in the use of digital technology in vocabulary learning which has been adapted to the learning style of each student can be considered as a preference with development and innovation in the future, I hope that the quality of teaching and learning development will improve.

4. For the next researcher

For future researchers who will examine the same subject should be able to develop research findings by using this research as a good reference, in order to be more in-depth and can be deeper and can be recognized as long-term research, then the researcher also recommends that future researchers research for a longer period of time. Another suggestion is that future researchers should use quantitative, experimental or mixed method research and give tests to students to determine the improvement of vocabulary skills by using digital technology on students with different learning styles.

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APPENDIXES

Appendix I

Questions of questionnaire

1. I need to find the way to a pet shop that a friend has recommended. I would:

- a) find out where the pet shop is to somewhere I know.
- b) ask my friend to tell me the directions.
- c) write down the street directions I need to remember.
- d) use a map.

2. A website has a video showing how to make a special graph or chart. There is a person speaking, some lists and words describing what to do and some diagrams. I would learn most from:

- a) seeing the diagrams.
- b) listening.
- c) reading the words.
- d) watching the actions.

3. I want to find out more about a tour that I am going on. I would:

- a) look at details about the highlights and activities on the tour.
- b) read about the tour on the itinerary.

c) talk with the person who planned the tour or others who are going on the tour.

d) use a map and see where the places are.

4. When choosing a career or area of study, these are important for me:

a) communicating with others through discussion.

b) working with designs, maps, or charts.

c) using words well in written communications.

d) applying my knowledge in real situations

5. When I am learning I:

a) read aloud to memorize a book text, articles and handouts.

b) seeing patterns in things.

c) use examples and applications.

d) listening to songs through spotify or youtube

6. I want to find out about a house or an apartment. Before visiting it. I would:

a) read a print brochure that describes the options in detail.

b) a discussion with the owner

c) a plan showing the rooms and a map of the area.

d) to view a video of the property.

7. I want to learn how to play a new board game or card game. I would:

- a) watch others play the game before joining in.
- b) listen to somebody explaining it and ask questions.
- c) use the diagrams that explain the various stages, moves and strategies in the game.
- d) read the instructions.

9. I want to learn to do something new on a computer. I would:

- a) read the written instructions that came with the program.
- b) talk with people who know about the program.
- c) start using it and learn by trial and error.
- d) follow the diagrams in a book.

9. I have a problem with my heart. I would prefer that the doctor:

- a) gave me something to read to explain what was wrong.
- b) used a plastic model to show me what was wrong.
- c) described what was wrong.
- d) showed me a diagram of what was wrong.

10. When learning from the Internet I like:

- a) videos showing how to do or make things.
- b) interesting design and visual features.
- c) interesting written descriptions, lists, and explanations.
- d) audio channels where I can listen to podcasts or interviews.

11. I have a problem with my eyes. I would prefer that the doctor:

- a) described what was wrong.
- b) gave me something to read to explain what was wrong.
- c) showed me a diagram of what was wrong.
- d) used a plastic model to show me what was wrong.

12. I want to learn how to take better photos. I would:

- a) ask questions and talk about the camera and its features.
- b) use the written instructions about what to do.
- c) use diagrams showing the camera and what each part does.
- d) use examples of good and poor photos showing how to improve them.

13. I prefer a presenter or a teacher who uses:

- a) demonstrations, models or practical sessions.
- b) question and answer, talk, group discussion, or guest speakers.
- c) diagrams, charts, maps or graphs.
- d) handouts, books, or readings.

14. I have finished a competition or test and I would like some feedback.

I would like to have feedback:

- a) using examples from what I have done.
- b) using a written description of my results.
- c) from somebody who talks it through with me.
- d) using graphs showing what I achieved.

15. I want to save more money and to decide between a range of options.

I would:

- a) read a print brochure the options in detail
- b) talk with an expert about the options
- c) use graphs showing defferent options for diffeerent time periods
- d) consider examples of each option using my financial information.

16. I want to assemble a wooden table that came in parts (kitset). I

would

learn best from:

- a) diagrams showing each stage of the assembly.
- b) advice from someone who has done it before.
- c) written instructions that came with the parts for the table.
- d) watching a video of a person assembling a similar table.

Appendix II

Transcript of Interviews

Name : Auva Favian Ramadhan

Learning styles : Visual

Class : VIII B

School : SMPN 44 Semarang

No.	Question	Answer
1.	Do you participate in vocabulary learning using digital technology in class? If not, what is the reason why you are not involved in the activity?	Yes, I participate and follow English learning activities using various digital technologies such as ppt, YouTube videos, online dictionaries, wordwall, quiz, etc.
2.	Based on your learning style, what kind of digital technologies are you more interested in using to learn English vocabulary? Name the types of digital technologies you prefer, and what makes them helpful for your understanding. Can you give examples of specific applications or	I prefer to learn with the help of YouTube. Because there is a lot of interesting content and I often watch it, for example, watching western movies, watching animated videos, watching video tutorials on how to become a public speaker and watching videos of foreign boxing. because YouTube can make it easier for me to learn English

	<p>media (such as videos, podcasts, songs, AI, interactive quizzes, roleplays, interactive webinars, or infographics)? Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>vocabulary. Not only vocabulary but with speaking, pronunciation, grammar etc. Besides I like learning with the help of YouTube, I also like to search for anything on Google, TikTok, Twitter and Instagram. Because from the help of some of these media, I can get some new English words and it becomes easier to remember because they often appear and are read involuntarily.</p>
3	<p>Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>Yes, it is very helpful because it is very easy to understand on its own and I enjoy learning.</p>
4.	<p>How do you feel when you receive feedback from vocabulary learning? Does it suit your learning style?</p>	<p>I think there are many benefits of technology-based learning because English materials can be accessed more easily and more instantly. It is in accordance with my learning style that I prefer to</p>

		learn by watching or something else that can be seen and heard. Because YouTube can make it easier for me to learn English vocabulary. Not only vocabulary but also speaking, pronunciation, grammar etc.
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Name : Wilujeng Nur Aiyah

Class : VIII B

Learning styles : Audio

School : SMPN 44 Semarang

No.	Question	Answer
1.	Do you participate in vocabulary learning using digital technology in class? If not, what is the reason why you are not involved in the activity?	Yes, I participate in every vocabulary lesson in class.
2.	Based on your learning style, what kind of digital technologies are you more interested in using to learn	I prefer learning using songs from spotify music, listening to podcasts and interactive discussions. Because it is easier

	<p>English vocabulary? Name the types of digital technologies you prefer, and what makes them helpful for your understanding. Can you give examples of specific applications or media (such as videos, podcasts, songs, AI, interactive quizzes, roleplays, interactive webinars, or infographics)? Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>for me to capture new vocabulary through song lyrics that I often hear and sing. And also through podcasts from YouTube and interactive discussions from YouTube I gradually understand what is being discussed without seeing subtitles. If I'm confused about what it means, I can immediately look at the subtitles.</p>
3	<p>Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>Yes, it is very helpful because it trains me more in memorizing, reading, and imitating English with the lyrics of the songs I listen to.</p>
4.	<p>How do you feel when you receive feedback from</p>	<p>It adds insight into vocabulary mastery and is faster to</p>

	vocabulary learning? Does it suit your learning style?	memorize because there are lyrics. Yes, it fits
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Name : Fernanda Amelia

Class : VIII B

Learning styles : Read-Write

School : SMPN 44 Semarang

No.	Question	Answer
1.	Do you participate in vocabulary learning using digital technology in class? If not, what is the reason why you are not involved in the activity?	Yes, I participate in every vocabulary lesson in class.
2.	Based on your learning style, what kind of digital technologies are you more interested in using to learn English vocabulary? Name the types of digital technologies you prefer, and what makes them helpful for your understanding. Can you give examples of	I feel comfortable learning with the help of interactive quizzes, Google Assistant or AI and online dictionaries. With the quiz I am more in the mood to do the questions, because the features and appearance are interesting and it is also easy to remember the vocab in the questions and answers. With the help of google

	<p>specific applications or media (such as videos, podcasts, songs, AI, interactive quizzes, roleplays, interactive webinars, or infographics)? Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>assistant or AI chat GPT I can read articles, search for articles or something I am looking for quickly and easily. With the online dictionary, it is easier for me to translate, look up vocabulary and practice the pronunciation I need.</p>
3	<p>Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>Yes, it is very easy. Because it is easily accessible by searching it on Google and others I can immediately find what I want. then immediately read or write it down so that it is easier to digest and easy to remember.</p>
4.	<p>How do you feel when you receive feedback from vocabulary learning? Does it suit your learning style?</p>	<p>It was very helpful and helped me find something difficult. Yes, very appropriate since I love reading.</p>

Name : Annas Ibadurrahman

Class : VIII B

Learning Styles : Kinesthetic

School : SMPN 44 Semarang

No.	Questions	Answer
1.	Do you participate in vocabulary learning using digital technology in class? If not, what is the reason why you are not involved in the activity?	Yes, participating.
2.	Based on your learning style, what kind of digital technologies are you more interested in using to learn English vocabulary? Name the types of digital technologies you prefer, and what makes them helpful for your understanding. Can you give examples of specific applications or media (such as videos, podcasts, songs, AI,	I prefer to learn by directly practicing it like with the help of games in the wordwall or dualingo application. Because from wordwall or dualingo I can play fun games, for example, rich games to string English vocabulary or sentences and guess the vocabulary and pronunciation or speaking games and others. By using it I am easier to remember and memorize English

	<p>interactive quizzes, roleplays, interactive webinars, or infographics)?</p> <p>Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>vocabulary. I also like to practice English directly, such as in drama performances or conversation practice in class. Using roleplay explores new vocabulary directly. I also like to watch video tutorials and video games, usually foreigners often play games and tell stories or explain the game in English, from there I can understand the vocabulary and start imitating and remembering it.</p>
3	<p>Does the use of digital technology as learning media make it easier for you to learn to understand English vocabulary? Why?</p>	<p>Yes, it is quite helpful because it makes it easier to learn English. So I can learn by myself at home or anywhere and with the game I become more interested and not easily bored.</p>
4.	<p>How do you feel when you receive feedback from vocabulary learning? Does it suit your learning style?</p>	<p>Yes, it suits my learning style. Through various technologies in English learning, I can memorize more verbs 1, 2, and 3 and some adjectives.</p>

Appendix III

Documentations of the Observation and Interview

Observation



Picture 1. Students used YouTube in vocabulary learning



Picture 2. Students used Smartphones and discussion in vocabulary learning



Picture 3. Students used Quizizz in vocabulary learning



Picture 4. Students used Word wall in vocabulary learning



Picture 5. Students used the Canva application and DeepL online dictionaries in vocabulary learning

Interview



Picture 1. Interview students with a visual learning style



Picture 2. Interview students with an audio learning style



Picture 3. Interview students with a read and write learning style



Picture 4. Interview students with a kinesthetic learning style

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