

**THE IMPACT OF DIGITAL LEARNING MEDIA ON  
STUDENTS' VOCABULARY MASTERY AT  
VOCATIONAL HIGH SCHOOL**

**SKRIPSI**



**submitted as one of the requirements  
to obtain a Bachelor of Education degree**

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VOCABULARY MASTERY AT VOCATIONAL HIGH SCHOOL

SKRIPSI

Presented to

IKIP PGRI Bojonegoro

in partial fulfilment of the requirements

for the degree of Sarjana in English Education

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**2025**

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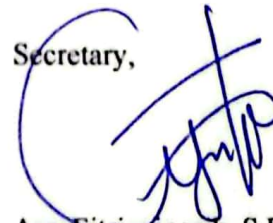
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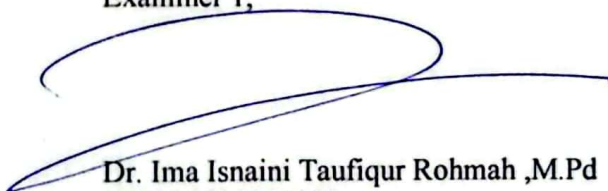
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## MOTTO

" لا تطلب الدنيا واطلب خالق الدنيا "

—Kh. Ahmad Muzzamil Nur

" قيمة كل امرئ ما يُحسنه "

—Sayyidina Ali bin Abi Thalib

**"It always seems impossible until it's done."**

— Nelson Mandela

**"Be water, my friend."**

— Bruce Lee

*"Itami o kanjiro, Itami o kangaero, Itami o uketore. Itami o shire, Itami o shiranu  
mono ni hontō no heiwa wa wakaran, Koko yori sekai ni itami o..."*

—Tendō Pain

*"Modal Honocoroko Dotosowolo*

*Restu Ibu Bumi lan Bopo Angkoso*

*Kang Kuoso Due Cubo, Ibuku Due Dungo"*

*"Dengan otak yang tak seberapa tajam ini, yang setiap hari dicambuk waktu,  
mata yang tak diberi izin terpejam, dan tubuh yang gemetar diseret lelah, justru  
itulah bata-bata yang membangun pondasi keteguhan. Berdiri bukan dari  
kehebatan tapi dari retak-retak kecil yang tak menyerah dirajut menjadi pijakan."*

*"Setiap detik yang terasa perih, setiap malam yang hanya ditemani kopi getir dan  
keraguan, menjadi semen yang merekatkan keyakinan. Tak dibentuk oleh  
kemudahan, melainkan oleh setiap kegagalan yang dibenahi, oleh tangis yang tak  
sempat terdengar, dan oleh tekad yang diam-diam tumbuh di sela lelah. Kini, di  
hadapan terciptalah lembar-lembar ini, bukan kejeniusan yang membawa ke  
garis akhir, tapi keberanian untuk tetap berjalan walau gemetar."*

*~penulis*

## ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful. With a heart full of gratitude and humility, I begin by offering my utmost praise to the Almighty, whose unseen hand has guided every step of this journey. It is by His mercy and strength that I have been able to complete this Skripsi, entitled: **“The Impact of Digital Learning Media on Vocabulary Mastery at Vocational High School”**, as a fulfillment of the requirements for the Sarjana degree at IKIP PGRI Bojonegoro.

This Skripsi is not merely a compilation of words and data, it is the fruit of a long journey marked by sleepless nights, unseen exhaustion, and the relentless support of many souls who walked with me through storms and sunrises. Therefore, with great humility and sincerity, I would like to express my deepest gratitude and appreciation to:

1. Dr. Dra. Junarti, M.Pd., Rector of IKIP PGRI Bojonegoro, for her inspiring leadership and support.
2. Dr. Cahyo Hasanudin, M.Pd., Dean of the Faculty of Languages and Arts Education, for fostering an environment of academic excellence.
3. Ayu Fitrianingsih, M.Pd., Head of the English Education Study Program, for her dedication and guidance.
4. Oktha Ika Rahmawati S.Pd., M.Pd. and Dr. Moh. Fuadul Matin, S.S., M.Pd., my respected skripsi advisors, whose patience, insight, and unwavering support have helped shape this skripsi into its final form.
5. All the lecturers and staff of the Faculty of Languages and Arts Education, for their wisdom, kindness, and commitment to shaping minds.

6. My beloved parents, Sukamto and Sutri, whose prayers are my shield and whose love is the wind beneath my wings. Their sacrifices are the unseen chapters behind this skripsi.
7. With heartfelt gratitude, the researcher would like to thank the researcher companions M. Syamsul Munir, Ahmad Nurul Mustofa, Ahmad Danny Prasetyo, Ridho Dwi Syaputra, Arya Sabela, and all friends who have provided support, encouragement, assistance, and prayers throughout the writing process. Their presence, input, and motivation have played an important role in shaping and facilitating the completion of this work.
8. My fellow students and cherished friends from the English Education Department especially "*them*", who have been my companions in sharing spirit, laughter, and the journey of struggle.
9. Every unnamed individual who, knowingly or not, contributed to this journey your kindness is not forgotten.
10. Lastly, I would like to express my sincere appreciation to someone who has remained constant throughout this academic journey, myself. Amid uncertainty, fatigue, and moments of doubt, I chose to persevere. I am grateful to myself for the commitment to keep moving forward, for the dedication to hard work even without visible results, and for the resilience to finish what I started. This journey has reminded me of the importance of believing in one's own potential, acting with integrity, and remaining true to personal values. Without the strength found within, none of this would have been possible.

This Skripsi is not a finish line, but a milestone carved with perseverance, resilience, and gratitude. While I acknowledge its imperfections, I welcome any constructive feedback for its improvement.

May this humble work serve not only as a source of academic reference but also as evidence that perseverance never betrays the result.

Bojonegoro 10 July 2025  
The Researcher

A handwritten signature in black ink, consisting of stylized loops and a final flourish.

MUHAMAD NUR PRASTYO  
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## STATEMENT OF AUTHENTICITY



I, the undersigned below:

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In order to uphold academic integrity, sincerely and without coercion from any parties, I hereby declare that the skripsi entitled:

### **THE IMPACT OF DIGITAL LEARNING MEDIA ON STUDENTS' VOCABULARY MASTERY AT VOCATIONAL HIGH SCHOOL.**

Is the result of my own original work, and all sources of information used have been clearly cited in the reference list according to the scientific and academic code of ethics. I am aware that if any violations of scholarly ethics regarding to the authenticity of this work are found, **I personally** accept the consequences in accordance with the applicable regulations and am prepared to bear legal sanctions.

goro, 22 july 2025  
  
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## ABSTRACT

Prastyo, Muhamad Nur. 2025. *The Impact of Digital Learning Media on Students' Vocabulary Mastery at Vocational High School*. Undergraduate Skripsi, English Education Study Program, Faculty of Language and Arts Education, IKIP PGRI Bojonegoro. Advisors: (I) Oktha Ika Rahmawati S.Pd., M.Pd., (II) Dr. Moh. Fuadul Matin, S.S., M.Pd.

**Keywords:** digital media, vocabulary acquisition, vocational high school, quasi-experiment, English language learning

Mastery of technical English vocabulary is essential for vocational high school students to meet global industry demands. This study aims to examine the effectiveness of digital learning media on vocabulary mastery among tenth-grade Computer and Network Engineering students at SMK AL-KYAI Sukosewu. Using a quantitative approach with a quasi-experimental design, the study involved two groups: the experimental group (digital media) and the control group (conventional methods). Pre-tests and post-tests were used to measure vocabulary improvement. The Shapiro-Wilk normality test showed that the data were normally distributed ( $p > 0.05$ ), and Levene's test indicated homogeneous variance ( $p = 0.197$ ), allowing for parametric analysis. Paired samples t-tests showed significant improvement in both the experimental group (Mean difference = -17.560;  $t = -37.995$ ;  $p = 0.000$ ) and control group (Mean difference = -9.120;  $t = -27.365$ ;  $p = 0.000$ ). The independent samples t-test revealed a significant difference in post-test scores ( $t = -2.830$ ;  $df = 48$ ;  $p = 0.007$ ), with the experimental group scoring higher (70.88) than the control group (63.28). These findings indicate that digital learning media is more effective than conventional methods in improving students' vocabulary mastery. The results underscore the importance of integrating technology into language learning, particularly in 21st-century vocational education, as digital media not only enhances learning outcomes but also enriches students' interactive and meaningful learning experiences.

## ABSTRAK

Prastyo, Muhamad Nur. 2025. Dampak Media Pembelajaran Digital terhadap Penguasaan Kosakata Siswa di Sekolah Menengah Kejuruan. Skripsi Sarjana, Program Studi Pendidikan Bahasa Inggris, Fakultas Pendidikan Bahasa dan Seni, IKIP PGRI Bojonegoro. Dosen Pembimbing: (I) Oktha Ika Rahmawati, S.Pd., M.Pd., (II) Dr. Moh. Fuadul Matin, S.S., M.Pd.

**Kata Kunci:** media digital, penguasaan kosakata, SMK, quasi experiment, pembelajaran bahasa Inggris

Penguasaan kosakata teknis dalam bahasa Inggris penting bagi siswa SMK untuk menghadapi tuntutan industri global. Penelitian ini bertujuan menguji efektivitas media pembelajaran digital terhadap penguasaan kosakata siswa kelas X Teknik Komputer dan Jaringan di SMK AL-KYAI Sukosewu. Menggunakan pendekatan kuantitatif dengan desain quasi-experimental, penelitian ini melibatkan dua kelompok: eksperimen (media digital) dan kontrol (metode konvensional). Instrumen pre-test dan post-test digunakan untuk mengukur peningkatan kosakata. Uji normalitas Shapiro-Wilk menunjukkan data terdistribusi normal ( $p > 0,05$ ), dan uji homogenitas Levene's menunjukkan varians homogen ( $p = 0,197$ ), sehingga layak dianalisis secara parametrik. Hasil paired samples t-test menunjukkan peningkatan signifikan pada kelompok eksperimen (Mean difference = -17,560;  $t = -37,995$ ;  $p = 0,000$ ) dan kontrol (Mean difference = -9,120;  $t = -27,365$ ;  $p = 0,000$ ). Uji independent samples t-test menunjukkan perbedaan signifikan pada skor post-test ( $t = -2,830$ ;  $df = 48$ ;  $p = 0,007$ ), dengan rata-rata skor kelompok eksperimen lebih tinggi (70,88) dibanding kontrol (63,28). Temuan ini menunjukkan bahwa media pembelajaran digital lebih efektif dibandingkan metode konvensional dalam meningkatkan penguasaan kosakata. Hasil ini menegaskan pentingnya integrasi teknologi dalam pembelajaran bahasa di pendidikan vokasi abad ke-21, karena media digital terbukti meningkatkan hasil belajar serta memperkaya pengalaman belajar siswa secara interaktif dan bermakna.

## **PREFACE**

In the name of Allah, the Most Gracious, the Most Merciful. Praise be to Allah SWT, who has bestowed His mercy, strength, and guidance, enabling the completion of this undergraduate Skripsi entitled:

### **“The Impact of Digital Learning Media on Students’ Vocabulary Mastery at Vocational High School”.**

This research was conducted to fulfill one of the academic requirements for obtaining a Bachelor's degree in English Education at IKIP PGRI Bojonegoro. The idea behind this study emerged from the researcher's concern for the gap between technological advancement and students' practical language needs in the vocational school context. The research was designed using a quantitative approach with quasi-experimental methods, aiming to empirically measure the effectiveness of digital learning media in improving students' English vocabulary mastery.

This academic journey was not easy. It was a path paved with long nights of contemplation, revisions, moments of doubt, and the support of many individuals whose presence and prayers have shaped this work into reality. Each page written is a reflection not only of scholarly effort but also of spiritual resilience and sincere intention.

The researcher hopes that this skripsi will not only serve as a scientific contribution to the field of English language education but also as a source of inspiration for educators, students, and future researchers who are committed to transforming learning through technology. May this humble work be beneficial and bring meaningful insight to all who read it.

*“The worth of every person is in the good they do.”  
Sayyidina Ali ibn Abi Talib*

Bojonegoro, 10 July 2025  
The Researcher

A handwritten signature in black ink, appearing to be 'Muhamad Nur Prastyo'.

MUHAMAD NUR PRASTYO  
NIM 21120072

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# **CHAPTER I**

## **INTRODUCTION**

### **A. Background of Study**

In the last decade, advances in information technology have accelerated digitalization across almost all sectors of life, including education. The Fourth Industrial Revolution has driven the transformation of learning systems towards more adaptive, integrated approaches that widely leverage digital technology. Developed countries have successfully integrated digital media into education to foster 21st-century skills such as critical thinking, collaboration, and digital literacy (Gretter & Yadav, 2016). However, in Indonesia, the implementation of digital media in the education system still faces significant challenges, including infrastructure gaps and a lack of human resource readiness.

Specifically for vocational education, Vocational High Schools play a crucial role in preparing graduates who are competent and job-ready in their respective fields of expertise. One essential competence is proficiency in English, especially in the form of technical vocabulary used in the global industrial world. English is not only a means of international communication but also a fundamental requirement in various technology-based fields (Ganesan & Angeline, 2017). However, the Ministry of Education and Culture (Kemendikbud, 2023) reports that only about 28% of Vocational High School graduates feel confident using English in a professional context.

This situation reveals a gap between industry needs and the quality of English language learning in Vocational High Schools. Generally, English teaching still tends to be structural, focusing on memorization of grammar rather than equipping students with practical skills based on technical vocabulary. In fact, vocabulary-based approaches have been proven to be more effective in building a strong and contextual language foundation (Abrudan & Horea, 2022). In this regard, digital media are considered capable of bridging this gap by presenting content in multimodal and engaging ways.

Various forms of digital media, such as instructional videos, educational podcasts, mobile apps, and interactive educational games, have been shown to significantly improve English vocabulary acquisition. For example, in a study by Ramli & Kurniawan (2018), students in the electrical engineering department who participated in an English-language podcast video project experienced a 40% improvement in vocabulary retention compared to students taught using conventional lecture methods. Digital media encourage active student engagement and foster emotional connections to the learning material, particularly for Generation Z, who are highly familiar with technology.

Furthermore, the importance of utilizing digital media is also supported by research by Talapova and Nurgali (2024), which indicates that digital storytelling approaches can significantly enhance students' understanding of technical terms and communication skills. The integration of visual, audio, and narrative elements in the learning process has been shown to strengthen students' memory and provide meaningful context for everyday vocabulary

use. This learning model offers a more personal and reflective learning experience.

However, the use of digital media in English language learning in Vocational High Schools has yet to be implemented optimally, especially in regions with limited technological infrastructure. According to Afriani (2024), many Vocational High Schools in remote areas lack stable internet connections or adequate digital devices, which are major barriers to implementing technology-based learning. A survey by Ruffini et al. (2019) also found that internet network disparities in 3T (leading, outer, and underdeveloped) regions hinder access to digital media. In line with this, Karnalim & Wijanto (2021) highlighted the significant challenges faced by Indonesian Tourism Vocational Schools in developing synchronous and asynchronous online classes due to infrastructure limitations.

In addition to infrastructure, teacher readiness to integrate technology into teaching also plays a crucial role. Fahrurozi et al. (2019) emphasizes that the effectiveness of digital media in education largely depends on teachers' ability to align content, pedagogy, and technology within the TPACK framework. Many teachers in Vocational High Schools still lack adequate training to design and implement technology-based learning materials in a contextual manner. If not systematically designed, the use of digital media could lead to information overload and reduce learning effectiveness. Several studies have found that students who access digital materials independently without teacher guidance tend to become confused when trying to understand technical vocabulary. Therefore, learning strategies based on a structured

curriculum framework, clear evaluation systems, and the appropriate integration of digital media tailored to the characteristics of the learners are required.

Previous studies have indeed shown a positive correlation between the use of digital media and improvements in English language proficiency. However, these findings vary depending on the type of media, the intensity of use, and the learning context. To date, there has been limited research specifically examining the impact of digital media on the acquisition of technical vocabulary in the context of vocational education in Indonesia using a measurable quantitative approach.

In this context, SMK AL-KYAI Sukosewu serves as an example of a vocational institution that has begun utilizing digital media, such as instructional videos and online quizzes, in the English language teaching process. However, no formal evaluation has been conducted regarding the effectiveness of these media in improving students' vocabulary acquisition, particularly technical vocabulary related to their areas of expertise. Based on initial observations, it was found that only 35% of tenth-grade students in the Computer and Network Engineering program at SMK AL-KYAI Sukosewu were able to identify more than 50 technical terms in English related to their field. This fact indicates a significant gap in technical vocabulary acquisition, which could potentially affect graduates' job readiness and competitiveness.

This study employs a quantitative approach to empirically examine the impact of digital media on English vocabulary acquisition in Vocational High School students. The primary focus of the research is to identify the most



effective types of digital media, measure the improvement in vocabulary acquisition before and after the digital media intervention, and test the relationship between the use of digital media and students' vocabulary proficiency using validated instruments.

The results of this study are expected to contribute both scientifically and p This theoretical review aims to provide a conceptual framework relevant to the research topic. The discussion is organized into three main areas: the concept of digital learning media, theories of vocabulary mastery, and the interconnection between digital learning tools and students' vocabulary acquisition. ractically to the development of digital-based learning strategies in Vocational High Schools. Moreover, the findings are expected to provide a foundation for policymakers and curriculum developers in designing more contextual, measurable, and industry-relevant English language learning approaches. Considering the infrastructure challenges, teacher readiness, and learning gaps outlined, this study is relevant in the context of vocational education in the digital age. This research is hoped to be a significant contribution to driving the transformation of innovative English language learning based on digital media in Vocational High Schools in Indonesia.

## **B. Formulation of the Problems**

This study is motivated by the existing gap between the need for English technical vocabulary proficiency in Vocational High Schools and the traditional teaching approaches that still predominantly prevail. Conventional methods are considered less effective in enhancing students' vocabulary

acquisition in a practical and contextual manner. With the advancement of technology, digital learning media have emerged as a potential alternative to improve student engagement and learning outcomes, particularly in the mastery of technical vocabulary. Based on this background, the research questions formulated in this study are as follows:

1. How is the effect of using digital learning media on students' English vocabulary acquisition at SMK AL-KYAI Sukosewu?
2. What are the differences in vocabulary acquisition between students who learn through digital learning media and those who learn through non-digital or traditional teaching media?

### **C. Objectives of the Study**

The research objectives constitute a crucial component that provides direction and focus in conducting a study. In the context of this research, the objectives are formulated to address the research questions in a systematic, objective, and measurable manner, thereby contributing both theoretically and practically to the field of vocational English language education. The specific objectives of this study are as follows:

1. To examine the effect of using digital learning media on students' English vocabulary mastery scores at SMK AL-KYAI Sukosewu.
2. To compare the English vocabulary mastery outcomes between the experimental group using digital media and the control group taught using conventional methods.

## **D. Significances of the Study**

This research holds significant urgency in addressing the challenges faced by vocational education, particularly the growing demand for foreign language proficiency, especially in technical English vocabulary. Accordingly, the benefits of this study are categorized into two main aspects: theoretical benefits and practical benefits.

### **1. Theoretical Significance**

Theoretically, this study contributes to the enrichment of scientific discourse in the field of English language education, specifically within the context of technology-based vocational education. The findings are expected to strengthen arguments regarding the effectiveness of digital media in supporting the learning of technical vocabulary. Furthermore, The result of this research is expected to support the development of digital learning media in vocational education. It can give useful insights for teachers and schools in using technology to improve students' technical vocabulary mastery.

### **2. Practical Significance**

Practically, this study offers valuable insights and implications for various stakeholders involved in the implementation of vocational education.

A. For Teachers: The results of this study are expected to provide guidance for teachers in selecting, designing, and implementing digital learning media that are relevant to technical vocabulary

content and the characteristics of vocational high school students. Additionally, this research may encourage teachers to be more creative and innovative in delivering practical and contextual learning materials.

- B. For Students: The use of digital media in English language learning is expected to enhance students' learning interest, foster active engagement in the learning process, and assist them in understanding and mastering technical vocabulary directly related to their area of expertise.
- C. For Schools and Educational Administrators: The findings of this research can serve as a foundation for developing policies and strategies to promote technology-based learning. This includes the procurement of educational facilities, teacher training programs, and the integration of digital media into the vocational high school curriculum.
- D. For Future Researchers: This study is anticipated to serve as a reference for future research, whether employing quantitative or qualitative approaches, in evaluating the effectiveness of digital media in supporting other language skills such as reading, speaking, and writing.

## **E. Definition of Terminologies**

In quantitative research, operational definitions are essential to translate abstract concepts into empirically measurable indicators. These definitions aim

to prevent misinterpretation of terminology and ensure that the research variables can be tested objectively and systematically. This study involves two primary variables: digital learning media as the independent variable, and vocabulary mastery as the dependent variable. Additionally, conventional teaching methods serve as the comparative approach, and the students of SMK AL-KYAI Sukosewu are the research subjects. The operational definitions of each term are elaborated as follows:

### **1. Digital learning media**

Digital learning media refers to all technology-based tools or resources designed to support and enhance educational activities across various levels of instruction. These media include all forms of instructional aids that utilize digital technology to deliver, present, or store learning materials in a systematic, interactive, and engaging manner. Their use contributes to making the educational process more dynamic, efficient, and responsive to current developments. Generally, digital learning media fall into two main categories: hardware and software. Hardware includes devices such as computers, laptops, tablets, smartphones, projectors, and digital whiteboards. Software encompasses various educational applications, Learning Management Systems (LMS), interactive videos, educational games, and multimedia-based materials that can be accessed online or offline. The integration of both categories enables a more flexible and adaptive learning environment.

In this study, digital learning media is defined as technology-based tools or applications used in the teaching and learning process to present

English vocabulary materials interactively. This includes instructional videos, online quizzes, and other visual and audio content delivered through digital platforms. Operationally, this media serves as the treatment applied to the experimental group during instruction.

## **2. Vocabulary mastery**

Vocabulary mastery is defined as an individual's linguistic capacity to recognize, comprehend, and appropriately use words in a given language across various communication contexts, both oral and written. This competence involves understanding the denotative and connotative meanings of words, their morphological forms, and the ability to integrate them into correct syntactic structures. Beyond passive understanding, vocabulary mastery also entails the active skill of selecting and using words appropriately in relation to context, communicative purpose, and audience characteristics.

In the context of language learning particularly in English instruction at the vocational high school level vocabulary mastery plays a vital role in the development of overall language skills. Students with a broad and deep vocabulary knowledge are better equipped to comprehend reading materials, compose effective written texts, and clearly express ideas. Moreover, they are more capable of adapting to language variations encountered in both academic and professional settings. Therefore, improving vocabulary mastery supports not only basic language skills but also equips students with essential communication tools for facing global challenges.

In this study, vocabulary mastery refers to students' ability to recognize, understand, and use technical English terms relevant to the field of accounting. This ability is measured through pre-tests and post-tests, which assess three main indicators: term recognition, meaning comprehension, and contextual application of vocabulary in sentences. The test scores are analyzed to identify improvements following the treatment.

### **3. Conventional Teaching Method**

The conventional teaching method refers to a traditional instructional approach that has long been employed in educational settings, characterized by a one-way, teacher-centered process. In this approach, the teacher serves as the primary source of information, while students take on a relatively passive role as recipients of knowledge. Learning activities typically involve lectures, note-taking, and memorization, with minimal interaction, exploration, or active student engagement in constructing their own understanding. Instructional media are usually limited to blackboards, textbooks, and other simple aids, lacking support from interactive or multimodal technologies. While often considered effective for delivering factual information in a short period, this approach is less conducive to developing critical thinking, collaboration, and creativity skills essential for 21st-century education.

### **4. Student of SMK AL\_KYAI Sukosewu**

The subjects of this research are tenth-grade students from the Computer and Network Engineering Department at SMK AL-KYAI Sukosewu. The students were selected as the research sample and divided

into two groups: an experimental group taught using digital media and a control group taught using conventional methods. Measurements were conducted using the same instruments before and after the treatment to collect data that could be quantitatively compared.