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PENGARUH MULTIMEDIA INTERAKTIF PADA KEMAMPUAN PENGAJARAN MENDENGARKAN SIASWA KELAS DELAPAN MTs AL-FATWA

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui apakah multimedia interaktif yang mengajarkan keterampilan menyimak dapat mempengaruhi nilai menyimak siswa pada siswa kelas delapan Mts Al-Fatwa. Desain penelitian yang digunakan adalah Quasi-Eksperimental. Populasi dari penelitian ini adalah seluruh siswa Mts Al-Fatwa, dan pengambilan sampel menggunakan kelas delapan yang berjumlah 28 siswa. Pre-test dan post-test adalah alat yang digunakan untuk mengumpulkan data. Uji-t independen digunakan untuk menguji data pre-test dan post-test secara statistik. Kesimpulan dari uji-t independen adalah 3,992 > 1,701. Jadi H0 ditolak dan HA diterima karena t-hitung lebih besar dari t-tabel.

Kata Kunci : Efek, Multimedia Interaktif, Keterampilan, Mendengarkan

ABSTRACT

This study aims to determine whether interactive multimedia that teaches listening skills can affect students' listening scores in eighth- grade students of Mts Al-Fatwa. The research design used is Quasi- Experimental. The population of this study was all Mts Al-Fatwa students, and the sampling used the eighth grade which amounted to 28 students. Pre-test and post-test were the tools utilized to gather data. An independent t-test was used to statistically examine the pre-test and post-test data. The conclusion on the independent t-test is 3.992 > 1.701. So H0 is rejected and HA is accepted because the t-count is greater than the t-table.

Keywords : Effect, Interactive Multimedia, Listening, Skills

1. RESEARCH BACKROUND

English serves as a crucial foreign language for advancing science, information, technology, and communication (Kasihani, 2001). Language instruction encompasses four primary skills: reading, writing, listening, and speaking. Among these, listening represents the foundational skill acquired earliest in human development and remains the most frequently utilized throughout life. Listening involves identifying and comprehending spoken messages through sensory and communication abilities, including understanding pronunciation, grammar, vocabulary, and speaker intent (Barker & Gower, 2010).

Mastering listening requires consistent practice over time. Educators must implement methods providing regular opportunities for students to practice in varied contexts, strengthening comprehension and skill development. Learning media constitutes a vital component in this process, defined as instruments delivering instruction to students (Reiser & Gagne, 1983). Modern technological advancement has transformed learning media into increasingly varied and interactive formats, evolving from traditional text-based materials into engaging interactive tools.

Observations at MTs Al-Fatwa revealed concerning listening proficiency levels. Among 28 students, only seven achieved scores above 70, indicating most students performed below expected mastery levels. Additionally, the textbook "Developing English Competencies" lacked supplementary materials such as audio cassettes, videos, or listening guides, hindering optimal achievement of learning objectives.

This research examines interactive multimedia implementation in teaching listening to eighth-grade students at MTs Al-Fatwa, anticipating it as an innovative approach to English instruction. According to Bruner's learning stages theory (1999), learners progress through information reception, transformation, and evaluation phases, making interactive multimedia particularly suitable for vocabulary comprehension through visual representation.

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Interactive Multimedia

Multimedia combines various media elements used simultaneously, derived from "multi" (many) and "media" (medium), referring to information delivery through multiple channels (Gafur, 2012). Vaughan (2011), cited in Essel et al. (2016), defines multimedia as collections of text, sound, images, motion graphics, and video presented through computers or digital devices.

Interactive multimedia represents computer systems incorporating controllable multimedia components including text, images, audio, animations, and videos (Munir, 2012). Phillips (1997) describes the "interactive" coding approach as modern software focused on information distribution where users influence their environment through fully integrated interactive components, typically via computers.

Interactive Multimedia in English Learning

Listening as the foundation of language skills forms the basis for interactive multimedia development in enhancing student cognition through auditory abilities (Arono, 2014). Interactive multimedia brings concepts and processes to life, capturing students' attention to meaning and observation (Chee, 2018). Nandi (2006) identifies three interactive multimedia learning models:

Tutorial model: Software containing learning materials

Practice model: Computer-based instruction with programmed exercises testing student response speed

Simulation model: Imitation experiences creating authentic atmospheric conditions (Kurniawati & Nita, 2018)

Components of Interactive Multimedia

According to Aji (2010) and Senn (1983), interactive multimedia comprises five elements:

Text: Displays information through letters and phrases, serving as quick information conveyance

Images: Photography or graphics attracting attention and reducing boredom more effectively than abstract words (Supardi, 2014)

Video: Better suited for abstract and broad material with emotional elements (Taylor, 1992)

Animation: Movement models created through image alteration, demonstrating methods and explaining concepts (Stemler, 1997)

Audio: The most crucial element for presenting visual information effectively, making content more engaging

Listening Skills

Listening skills represent early-stage language abilities forming the foundation for speaking, reading, and writing. Children learn by observing and understanding spoken language from their surroundings (Suyanto et al., 2016). Listening constitutes an active mental process enabling comprehension of others' messages.

Cameron (2001) argues that listening involves receiving and processing communication to assign meaning to conversations, focusing on understanding for effective message transmission. Tyagi (2013) identifies five listening stages: hearing, understanding, remembering, evaluating, and responding.

2. RESEARCH METHOD

This study employed a quasi-experimental design with two groups: experimental and control. The design followed the pattern:

O_1	X	O_2
O_3		O_4

Figure 1. Study Employed A Quasi-Experimental

Where O_1 = experimental pre-test, X = treatment, O_2 = experimental post-test, O_3 = control pre-test, O_4 = control post-test (Sugiyono, 2014).

Population and Sample

The research population comprised all MTs Al-Fatwa students, with purposive sampling selecting 28 eighth-grade students (14 experimental, 14 control).

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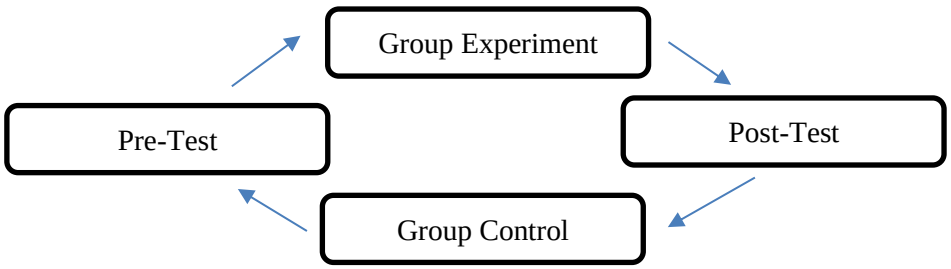
Research Instruments

Data collection utilized multiple-choice tests containing 10 questions with four options (A, B, C, D). Pre-tests measured initial listening abilities before treatment, while post-tests assessed comprehension after learning activities (Matondang, 2009).



Data Analysis

Statistical analysis employed independent t-tests to examine pre-test and post-test data differences. Student scores were calculated as: Score = (Students' correct answers / Total questions) × 100. Classification followed standard ranges: Excellent (91-100), Very Good (81-90), Good (71-80), Average (61-70), Poor (51-60), Very Poor (≤40).

3. FINDINGS AND DISCUSSION

Descriptive Statistics

Table 1 Presents Descriptive Statistics For Both Groups

Group	Test	N	Mean	Std. Deviation	Min	Max
Experimental	Pre-test	14	60.71	7.300	50	70
Experimental	Post-test	14	83.57	9.889	65	100
Control	Pre-test	14	61.07	10.411	40	75
Control	Post-test	14	70.36	7.459	60	80

Results indicate significant improvement between pre-tests and post-tests in both groups, with the experimental group demonstrating greater advancement.

Normality Test

Shapiro-Wilk test results confirmed normal distribution for all data sets (experimental pre-test: 0.891, control pre-test: 0.908, experimental post-test: 0.970, control post-test: 0.896), with all significance values exceeding 0.05.

Independent Sample Test

The independent t-test yielded:
Mean difference: 13.214 (83.571 - 70.357)
t-value: 3.992
Critical t-value (df=26, α=0.05): 1.701
Significance: 0.000
Levene's test: 0.350 (>0.05, indicating homogeneity)

Since t-value (3.992) > t-table (1.701), the null hypothesis was rejected and alternative hypothesis accepted, confirming interactive multimedia significantly affects listening skills.

Discussion

This eight-session study demonstrated interactive multimedia's positive impact on listening instruction at MTs Al-Fatwa. The experimental group's substantial improvement (mean gain: 22.86) compared to the control group (mean gain: 9.29) validates the hypothesis that interactive multimedia enhances listening comprehension.

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Listening constitutes a vital communication component enabling message identification and understanding (Rubin, 1995). These findings align with Arono's (2014) experimental research demonstrating interactive multimedia's effectiveness as classroom teaching methodology for improving listening skills. Similarly, Pangaribuan's study showed considerable impact (t-value 14.68 > 2.02), supporting interactive multimedia's efficacy.

However, Atmazaki's research on interactive dialogic media in online learning indicated limited effectiveness for speaking skills, suggesting context-dependent multimedia application. The current study's results correspond with Mishra and Sharma's (2005) definition of interactive multimedia as web-based applications combining text, sound, images, video, and graphics enabling content management by students and instructors.

The experimental group's superior performance demonstrates that interactive multimedia provides clearer structures for student learning situations, establishing efficient relationships between students and teachers through enhanced learning techniques. Visual and auditory stimulation through multimedia captures attention more effectively than traditional methods, facilitating better comprehension and retention.

4. CONCLUSION

Based on research findings and discussion, this study concludes that interactive multimedia significantly impacts eighth-grade students' listening skills at MTs Al-Fatwa. Statistical analysis confirms substantial differences between experimental and control group improvement rates, with the experimental group demonstrating superior advancement. The t-test result (3.992 > 1.701) led to null hypothesis rejection and alternative hypothesis acceptance, validating interactive multimedia's positive effect on listening comprehension.

Recommendations

For Teachers:

Implement media in teaching-learning processes to facilitate material deliveryUtilize interactive multimedia to enhance student understanding and material retention Maintain flexibility in adjusting to students' learning habits and mindsets

For Students:

Increase active participation in teaching-learning processes Familiarize with English as an essential communication tool Engage fully with interactive multimedia techniques during lessons. Explore innovative ideas supporting English instruction, particularly listening skills Investigate interactive multimedia applications across different educational contexts Examine long-term effects of multimedia implementation on language skill development For Future Researchers:

odologi Research. Yogyakarta: Andi Publisher, 2010.

REFERENCES

Arono. (2014). Improving Students Listening Skill through Interactive Multimedia in Indonesia. Journal of Language Teaching and Research, 5(1), 63-69.

Barker, L., & Gower, K. (2010). Strategic Application of Persuasion. Boston: Pearson Education.

Cameron, L. (2001). Teaching Languages to Young Learners. Cambridge: Cambridge University Press.

Chee, K. N. (2018). The Impact of Interactive Multimedia Learning on Student Engagement. Educational Technology Research, 45(2), 201-215.

Essel, H. B., Osei-Poku, P., Tachie-Menson, A., & Opoku-Asare, N. A. (2016). Self-Paced Interactive Multimedia Courseware: A Learning Support Resource for Enhancing Electronic Theses and Dissertations Development. Journal of Education and Practice, 7(12), 74-81.

Gafur, A. (2012). Desain Pembelajaran: Konsep Model dan Aplikasinya dalam Perencanaan Pelaksanaan Pembelajaran. Yogyakarta: Ombak.

Kasihani, K. E. S. (2001). English for Young Learners. Jakarta: Bumi Aksara.

Kurniawati, I. D., & Nita, S. (2018). Media Pembelajaran Berbasis Multimedia Interaktif untuk Meningkatkan Pemahaman Konsep Mahasiswa. DoubleClick: Journal of Computer and Information Technology, 1(2), 68-75.

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DOI:https://doi.org/10.58466/adidaya

Mishra, S., & Sharma, R. C. (2005). Interactive Multimedia in Education and Training. London: Idea Group Publishing.

Munir. (2012). Multimedia: Konsep & Aplikasi dalam Pendidikan. Bandung: Alfabeta.

Nandi. (2006). Penggunaan Multimedia Interaktif dalam Pembelajaran. Jurnal Pendidikan, 8(1), 12-18.

Reiser, R. A., & Gagne, R. M. (1983). Selecting Media for Instruction. Englewood Cliffs: Educational Technology Publications.

Rubin, J. (1995). A Guide for the Teaching of Second Language Listening. San Diego: Dominie Press.

Stemler, L. K. (1997). Educational Characteristics of Multimedia: A Literature Review. Journal of Educational Multimedia and Hypermedia, 6(3/4), 339-359.

Sugiyono. (2014). Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.

Supardi, A. (2014). Penggunaan Multimedia Interaktif Sebagai Bahan Ajar Suplemen dalam Peningkatan Minat Belajar. Jurnal Ilmiah Pendidikan Dasar, 1(2), 161-168.

Suyanto, K. K. E. (2016). English for Young Learners: Melejitkan Potensi Anak Melalui English Class yang Fun, Asyik, dan Menarik. Jakarta: Bumi Aksara.

Taylor, M. B. (1992). Technology and Language Learning. Boston: Heinle & Heinle.

Tyagi, B. (2013). Listening: An Important Skill and Its Various Aspects. The Criterion: An International Journal in English, 12, 1-8.

Vaughan, T. (2011). Multimedia: Making It Work (8th ed.). New York: McGraw-Hill.