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Interactive Digital Learning Media and Student Motivation: Evidence from Indonesian Junior High Schools

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Abstract

This study examines the influence of interactive digital learning media on students' learning motivation in Indonesian junior high schools. Responding to the increasing integration of platforms such as Google Classroom, Zoom, Quizizz, Kahoot!, and YouTube in post-pandemic classrooms, this research applies a quantitative correlational design involving 124 eighth-grade students selected through stratified random sampling. Data were collected using a validated Likert-scale questionnaire (Cronbach's $\alpha > 0.70$). Descriptive results indicate high student engagement with digital learning tools, particularly interactive and audiovisual media. Simple linear regression analysis shows that digital learning media significantly and positively affect learning motivation ($\beta = 0.593$, $p < .05$), explaining 35.1% of its variance ($R^2 = 0.351$). Qualitative responses corroborate these findings, emphasizing increased enthusiasm, confidence, and self-directed learning, although some students reported distractions and digital fatigue. The study provides empirical support for the role of well-designed digital media in enhancing motivation and offers practical implications for educators, schools, and technology developers in creating effective interactive learning environments.

Keywords: digital learning media, learning motivation, interactive learning, junior high school, educational technology

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INTRODUCTION

Advances in digital technology have drastically reshaped educational practices, especially in the post-pandemic era. Digital learning media such as interactive videos, online learning platforms, and gamified applications are increasingly integral to classroom instruction. In Indonesia, the use of Google Classroom, Zoom, Quizizz, Kahoot!, and YouTube has expanded rapidly, providing students with flexible, multimodal learning opportunities. Yet, the extent to which these technologies effectively enhance learning motivation remains debated.

Learning motivation is a critical determinant of student achievement, persistence, and engagement. According to Self-Determination Theory (Deci & Ryan, 2000), optimal motivation is achieved when learners experience autonomy, competence, and relatednessconditions that digital media can support through interactive, student-centered features. Similarly, Keller's ARCS Model (2010) identifies Attention, Relevance, Confidence, and Satisfaction as core motivational elements that can be strengthened via multimedia-based learning.

Previous studies report mixed findings. Some scholars (Kim & Frick, 2011; Dajani & Katbeh, 2022) highlight the benefits of interactivity for motivation and engagement, whereas others warn of distraction, cognitive overload, and reduced depth of learning (Huang et al., 2023). Research in Indonesia has primarily focused on learning outcomes or teacher readiness, leaving limited empirical evidence on how interactive digital media influence student motivation in junior high schools.

To address this gap, the present study investigates the effect of interactive digital learning media on student motivation within an Indonesian secondary school context. It seeks to determine whether interactive media integration significantly enhances both intrinsic and extrinsic motivation, contributing to the growing literature on digital pedagogy while offering insights for effective instructional design.

METHODS

The population comprised eighth-grade students at SMP X during the 2024–2025 academic year. Stratified random sampling ensured proportional representation across gender and class groups. From a total population of 240 students, 124 were selected exceeding Cohen's (1992) minimum requirement for regression analysis. A structured questionnaire based on Keller's ARCS Motivation Model was used. It consisted of:

- Interactive Digital Learning Media Scale (10 items): measuring usage frequency and perceived interactivity of tools such as Quizizz, Kahoot!, Google Classroom, and YouTube.
- Learning Motivation Scale (15 items): assessing attention, relevance, confidence, and satisfaction.

Items were scored on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Content validation involved three experts in educational psychology and instructional technology. Both scales demonstrated reliable internal consistency (Cronbach's $\alpha > .70$). Data were collected over two weeks in March 2025 using both online (Google Forms) and printed questionnaires. Participation was voluntary, and confidentiality was ensured.

Descriptive statistics summarized the distribution of responses. Inferential analysis used simple linear regression to determine the effect of interactive digital media on learning motivation. Assumptions of normality, linearity, and homoscedasticity were checked and met. SPSS version 25 was used for all analyses, with significance set at $p < .05$.

RESULTS & DISCUSSION

Results

Students showed high engagement with digital learning tools ($M = 3.92$, $SD = 0.61$). Learning motivation was also above average ($M = 3.78$, $SD = 0.67$), indicating strong attention, confidence, and satisfaction during digital-based lessons. Simple linear regression results are presented in Table 1.

Table 1. Regression Analysis of Interactive Digital Learning Media on Learning Motivation

Predictor	β	t	p	R^2
Interactive Digital Learning Media	0.593	8.461	.000	0.351

The regression coefficient indicates that a one-unit increase in interactive media usage corresponds to a 0.593 increase in motivation scores. The model accounts for 35.1% of the variance in student motivation, demonstrating a substantial predictive effect.

Discussion

The results reveal a strong positive relationship between interactive digital learning media and student motivation. This aligns with Self-Determination Theory, wherein students reported increased autonomy (control over learning pace), competence (confidence through instant feedback), and relatedness (collaboration through online platforms).

Keller's ARCS Model is also reflected in the findings. Interactive digital media effectively capture Attention through gamification and audiovisual content, establish Relevance through contextual examples, build Confidence via immediate scoring and guidance, and promote Satisfaction through rewards and achievements.

These findings are consistent with Kim and Frick (2011) and Dajani and Katbeh (2022), who found that interactive features enhance engagement and persistence. They also extend Indonesian research (Fauzy et al., 2023; Wulansari et al., 2024) by demonstrating that interactive digital tools influence not only learning outcomes but also motivational constructs.

However, challenges remain. Some students experienced distraction and digital fatigue due to excessive screen time and external notifications. This aligns with Huang et al. (2023), who emphasized the risk of cognitive overload in unstructured digital environments. Therefore, while digital media are beneficial, pedagogical intentionality is crucial.

CONCLUSION

This study provides robust empirical evidence that interactive digital learning media significantly enhance the motivation of Indonesian junior high school students. With $\beta = 0.593$ and $R^2 = 0.351$, interactive media represent a meaningful contributor to motivational outcomes. This study validates the applicability of SDT and ARCS in digital learning contexts, demonstrating how interactivity fulfills autonomy, relevance, confidence, and satisfaction. Teachers should purposefully integrate digital tools balancing visual interactivity, clear learning goals, and meaningful feedback to optimize motivation. Schools should invest in infrastructure, teacher training, and guidelines for motivationally effective digital pedagogy. The study's scope is limited to a single school and self-reported measures. Future research should incorporate longitudinal designs, multiple contexts, and variables such as learning styles and socio economic factors.

REFERENCES

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Dajani, D., & Katbeh, A. M. (2022). The impact of digital learning on students' motivation and academic performance: Evidence from online higher education during COVID-19. *Education and Information Technologies, 27*(4), 4699–4716.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Fauzy, E. R., Muwahidah, M. D., Oktiaputri, A., & Widian, W. (2023). Students' perceptions of multitasking and communication activities in online learning.

Artikulasi: Jurnal Pendidikan Bahasa dan Sastra Indonesia, 3(2), 112–124. https://doi.org/10.17509/artikulasi.v3i2.69722

Huang, Y., Lin, S., & Chen, J. (2023). The paradox of digital learning: Balancing engagement and cognitive overload in online classrooms. *Computers & Education, 201*, 104802.

Keller, J. M. (2010). *Motivational design for learning and performance: The ARCS model approach*. Springer. https://doi.org/10.1007/978-1-4419-1250-3

Kim, K. J., & Frick, T. W. (2011). Changes in student motivation during online learning. *Journal of Educational Computing Research, 44*(1), 1–23. https://doi.org/10.2190/EC.44.1.a

Sweller, J. (2011). Cognitive load theory. In B. Ross (Ed.), *Psychology of learning and motivation* (Vol. 55, pp. 37–76). Academic Press. https://doi.org/10.1016/B978-0-12-387691-1.00002-8

Wulansari, I., Prasetyo, D., & Suryana, E. (2024). Digital learning media and students' engagement in the post-pandemic classroom. *Jurnal Pendidikan Digital, 2*(3), 215–229.