



Analyzing the Students' Interest and Ability in Using Chromebook in English Subject at 7th Grade of SMPN 7 Bukittinggi

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ABSTRAK

This study examines the impact of Chromebook integration on students' interest and ability in learning English at SMPN 7 Bukittinggi. The present study employs a qualitative case study approach, focusing on grade VII students from classes VII3, VII4, and VII5, which collectively encompass a total of 10 participants, with five females and five males. The data presented herein were collected through a combination of classroom observations and interviews with students and teachers. The findings indicate that Chromebooks facilitate interactive, collaborative, and personalized learning environments, thereby enhancing student motivation, English proficiency, and digital literacy. These tools facilitate essential functions, including the facilitation of assignment access, the provision of feedback, the promotion of peer collaboration, the cultivation of critical thinking, and the promotion of self-assessment. The efficacy of teacher facilitation is paramount for the optimal utilization of Chromebooks. In essence, the integration of Chromebooks into pedagogy fosters dynamic, student-centered environments conducive to autonomy and the development of higher-order thinking skills, underscoring the necessity for continual assessment to address a range of digital learning requirements.

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1. INTRODUCTION

Technological advancements have profoundly transformed education, creating opportunities to enhance learning effectiveness and prepare students for a competitive global future. Mayer's cognitive theory of multimedia learning asserts that the amalgamation of text and images enhances comprehension via dual modalities of verbal and visual processing. This supports the use of digital tools like Chromebooks in interactive language instruction. In Indonesia, the cultivation of a generation that is both intellectually and technologically proficient is imperative to confronting these challenges. The integration of technological tools, such as Chromebooks, has emerged as a prominent strategy to enhance educational quality and digital literacy. This approach is in alignment with the Merdeka Beltang policy by Mulyani et al. (2024), which aims to ensure equitable access to Information and Communication Technology (ICT) in educational institutions.

In the domain of English language education, there has been an increasing reliance on computer-based instructional models, particularly those that employ digital media to facilitate interactive and personalized learning experiences. Chromebooks are distinguished by their practical nature, offering seamless access to cloud-based resources, collaborative platforms, and customized learning experiences. The interface is characterized by its user-friendliness and connectivity, which align with contemporary pedagogical demands, particularly in the context of enhancing writing skills through frequent drafting and editing.

Despite these apparent advantages, a discrepancy persists between the pedagogical potential of Chromebooks and their actual impact on student learning outcomes. While Chromebooks have been shown to promote engagement and autonomy in educational settings (Albataineh et al., 2024), as evidenced by research demonstrating increased on-task behavior and motivation in secondary classroom settings, observations at SMPN 7 Bukittinggi reveal that not all students benefit equally from the implementation of these devices. The aforementioned discrepancy highlights the disparity between the intended utilization of technology and the multifaceted realities of heterogeneous learning environments.

Digital media's multifunctional characteristics, including multimedia integration and interactivity, provide a theoretical foundation for the effective support of language acquisition. However, the effective application of these tools requires careful facilitation by educators and consistent access to technological resources. Inadequate internet connectivity and limited teacher training often hinder optimal use of these tools in Indonesian schools. At SMPN 7 Bukittinggi, the Chromebook initiative was initiated in 2022 for eighth graders, with the seventh grade commencing their integration in late 2024. The staggered introduction provides an optimal context for examining the discrepancy between expected and realized benefits.

Empirical evidence from classroom observation indicates that lessons incorporating Chromebooks stimulate higher student engagement compared to conventional textbook-based instruction, which often results in decreased concentration and boredom. Despite the positive qualitative responses, quantitative data from midterm and final exams indicate that a significant portion of students still do not meet passing standards. However, many demonstrate academic improvement following Chromebook integration.

The observed performance disparity underscores unresolved challenges in leveraging Chromebooks to enhance English writing skills. The discordant outcomes underscore factors that transcend device availability, including instructional methodologies, student motivation, and contextual limitations. These elements collectively influence the translation of technological potential into quantifiable academic success.

Cognitive theories of multimedia learning and pedagogical research consistently affirm that digital tools enhance language skills by integrating visual and verbal stimuli and fostering learner autonomy. However, the efficacy of these devices is not consistent across all students. Some students have shown negligible progress despite having access to Chromebooks, underscoring the necessity of addressing diverse learner needs beyond mere device provision. This reality underscores the necessity for additional investigation into the factors that mediate technology's effectiveness in diverse learner populations.

A review of the extant literature reveals a paucity of studies specifically addressing Chromebook use in English subject instruction, particularly concerning student interest and writing proficiency. Research by Astuti et al. (2023) and studies on Chromebook-based multiliteracy indicate that effective media utilization enhances student engagement and independence. However, persistent gaps remain in writing outcomes. SMPN 7 Bukittinggi's distinctive status as the sole educational institution in Bukittinggi that has adopted Chromebooks within a comprehensive digital learning program provides a pivotal framework within which to examine this disparity and derive insights that are applicable to a wider range of educational settings.

In light of the observed discrepancies between the potential benefits of Chromebooks in facilitating learning outcomes and the documented variations in their effectiveness, the present investigation seeks to methodically examine students' inclination and proficiency in utilizing Chromebooks within the English curriculum at SMPN 7 Bukittinggi, with a particular emphasis on the enhancement of writing skills. The objective of this research is to identify the underlying factors influencing both the successes and limitations of the current integration approach. In doing so, the research seeks to bridge theoretical expectations with practical realities, offering actionable recommendations to optimize technology-enhanced English education in similar Indonesian contexts.

2. METHOD

The present study employed a mixed-methods case study design to investigate how seventh-grade students at SMPN 7 Bukittinggi utilize Chromebooks in English language learning, with a particular focus on their interest and ability in writing skills. The participants were purposively sampled; ten students from three classes (VII3, VII4, and VII5) who demonstrated minimal progress in English writing were selected. The data collection process entailed the utilization of several methodologies, chiefly observation and semi-structured interviews. The observations were conducted in three sessions per class, guided by a checklist that included key instructional activities such as interactive lessons with Google Classroom, collaborative projects using Google Docs and Slides, research and information literacy, creative expression, interactive reading, language learning support, and the creation of digital portfolios. To enhance the validity of the gathered data, the integration of video recordings served to augment the observations recorded through written notes.

To capture a comprehensive understanding of the integration of Chromebooks in English instruction, both students and teachers were interviewed. The objective of the interviews was to gather their experiences, perceptions, and challenges. The interviews were audio-recorded with the participants' consent to ensure the accuracy and thoroughness of the data. The qualitative analysis process was conducted in accordance with the model proposed by Miles and Huberman (1994), involving a sequence of steps beginning with the collection of data, followed by the reduction of extraneous information to focus on material pertinent to the research focus. Subsequently, the data were presented in organized formats, such as tables, to accentuate patterns in students' Chromebook utilization and adaptation strategies. The triangulation of observational and interview data provided a comprehensive understanding of how Chromebooks influence students' motivation and competencies, framed within the psychological needs of autonomy, competence, and relatedness.

In addition to the qualitative thematic analysis, quantitative data were collected from students' English midterm and final exam scores (pre- and post-Chromebook integration in late 2024). These data were then analyzed through the following structured procedures:

2.1 Descriptive Statistic Stage

Including means, standard deviations, and percentage changes in writing scores (0-100 scale) were computed to quantify overall proficiency improvements and variability across participants.

2.2 Inferential Statistics Stage

Paired-sample t-tests ($\alpha = 0.05$) were applied to assess the statistical significance of differences between pre- and post-intervention means, with Cohen's d effect sizes calculated to evaluate practical significance.

2.3 Correlational Analysis Stage

Pearson correlation coefficients were computed to examine relationships between self-reported interest levels (coded from interviews on a 1-5 Likert scale) and score gains, facilitating integration of numerical trends with qualitative insights.

The integration of qualitative and quantitative methodologies in this study offers a rigorous and nuanced exploration of Chromebook integration in English learning. This exploration underscores the intricacies of technology adoption in educational settings and the practical ramifications for enhancing student engagement and skill development in a digital context.

3. FINDING & DISCUSSION

This study explores the impact of Chromebooks on students' interest and proficiency in English at SMPN 7 Bukittinggi. A thoroughgoing examination of the findings discloses a multifaceted impact on engagement,

motivation, and writing proficiency, as delineated in the following section. The effects of these interventions manifest in a variety of ways, including alterations in usage patterns, interest enhancement, and skill development.

3.1 Students' Use of Chromebooks in English Subject

The following are the descriptive findings: At SMPN 7 Bukittinggi, students employ Chromebooks extensively in English lessons for interactive tasks via Google Classroom, encompassing multimedia resources that augment vocabulary and reading skills, thereby indirectly elevating writing proficiency. The seamless submission of assignments and the immediate receipt of feedback serve to enhance motivation and autonomy. Collaborative projects on Google Docs and Slides enable real-time peer editing and organization, thereby facilitating the development of communication skills, critical thinking, and digital literacy. Students adeptly research and evaluate online sources for writing, while integrating digital art fosters creative language expression. The utilization of interactive reading circles, replete with defined roles, fosters discourse that culminates in collaborative writing endeavors. Multimedia exercises, self-assessments, digital portfolios, and reflective multimodal assignments further support self-regulated learning and progress tracking in writing.



Picture 1. Students employ Chromebooks in English Lesson

3.2 The Influence of Chromebooks Integration on Students' Interest in English

The following are the descriptive findings: Integration with Chromebooks has been found to significantly

enhance interest levels by enabling autonomous exploration of content and tasks, as well as creative writing. Students report a marked increase in enthusiasm and effort, indicating a positive impact on their educational experience. Google Translate is an example of a tool that can assist in addressing challenges related to vocabulary, with the aim of fostering both competence and confidence. Collaborative features cultivate relatedness through peer feedback and teacher guidance, evident in heightened class participation and intrinsic motivation for writing tasks.

3.3 The Influence of Chromebooks Integration on Students' Ability in English

The following descriptive findings were obtained: The integration of Chromebooks in English language arts instruction has been demonstrated to facilitate the development of students' writing abilities through the autonomous organization of work on digital platforms such as Canva. The aforementioned platforms offer an array of features, encompassing the development of both mind maps and narratives. A substantial body of empirical evidence has demonstrated the efficacy of these features in fostering student ownership and personalization of learning materials, thereby underscoring their pedagogical advantages. The development of relatedness is fostered by teacher scaffolding, peer collaboration via Google Classroom and WhatsApp, and group activities, thereby enhancing speaking, critical thinking, and writing skills, despite occasional disengagement.

Table 1. Influence of Chromebook Integration on Students' Psychological Needs and Outcomes

Aspect	Key Chromebook Uses	Observed Student Outcomes
Autonomy	Independent exploration, Google Classroom submissions, Canva mind maps	Increased motivation, self-confidence, ownership in writing
Competence	Google Translate, multimedia exercises, research tools	Vocabulary gains, independent task completion, proficiency improvements
Relatedness	Google Docs collaboration, peer feedback, group discussions	Enhanced engagement, communication, critical thinking

3.4 Analytical Discussion

The integration of Chromebooks with other educational technologies aligns with Self-Determination Theory (Deci & Ryan, 2000), promoting autonomy through self-directed tasks, competence via accessible tools such as Google Translate, and relatedness within collaborative digital environments. The integration of Chromebooks into K-12 education has been demonstrated to serve as a catalyst for motivational benefits, as supported by Sung, Chang, and Liu (2016). These mechanisms elevate student interest, consistent with Liaw's (2007) findings on the role of feedback in enhancing perceived competence.

The observed improvements in students' abilities reflect Mayer's (2001) multimedia learning theory, where the integration of verbal and visual elements through digital summarization, mind-mapping, and presentations optimizes retention and comprehension of written material. Peer collaboration further aligns with Wang and Vásquez's (2012) framework, emphasizing interaction in writing tasks. Collectively, these findings underscore the efficacy of Chromebooks in heterogeneous Indonesian contexts like SMPN 7 Bukittinggi, though teacher training and connectivity remain pivotal for equity.

4. CONCLUSION

The study's findings indicate that students employ Chromebooks in an effective manner to support their English learning, particularly in the development of their writing skills. Google Classroom is one such platform that facilitates interactive lessons, multimedia content, streamlined assignment submission, and timely teacher

feedback, which collectively boost student engagement and motivation. The technology facilitates collaboration and critical thinking through Google Docs and Slides, enhancing the organization and clarity of students' written work. Additionally, Chromebooks have emerged as a tool that facilitates research, creative expression, and multimedia activities, catering to the diverse learning needs of individuals, including English Language Learners. The implementation of digital portfolios fosters reflective practice and self-regulated learning, thereby further contributing to continuous improvement in writing proficiency.

The findings of the study indicate that Chromebook integration substantially enhances students' interest and ability in English language tasks. Digital tools that are diverse in their capabilities have been demonstrated to foster autonomy in students, empowering them to explore a variety of linguistic and digital skills, including vocabulary development, sentence construction, and digital summarization, in an independently and creatively oriented manner. The collaborative features of Chromebooks have been demonstrated to promote peer interaction, while the incorporation of multimedia resources and the provision of technical support by educators serve to enhance student confidence in writing. The integration of technology in language education has been demonstrated to promote intrinsic motivation and self-regulation in learners, thereby enabling them to navigate challenges in English writing more effectively. In essence, Chromebook utilization contributes to an enhancement of the learning environment by supporting both the development of language skills and fostering digital literacy. Consequently, it advances comprehensive English proficiency in technology-enhanced classrooms.

Suggestion

Drawing upon the study's findings regarding the incorporation of digital media into Chromebooks, the following set of practical recommendations is proposed:

For Teacher

It is imperative to prioritize professional development workshops on Chromebook-specific tools, such as Google Workspace for Education, to enhance lesson design and real-time student engagement. Moreover, formative assessments via platform analytics should be incorporated on a regular basis to refine instructional strategies and address individual learning gaps observed in this research.

For School

It is recommended that the institution invest in scalable Chromebook infrastructure, including robust Wi-Fi networks and device maintenance protocols. Concurrently, the institution should develop institutional policies for equitable access to ensure broader implementation across subjects. Hybrid models combining Chromebooks with offline resources should be piloted to mitigate connectivity challenges identified in similar contexts.

For Further Researchers

It is imperative to broaden the scope of the investigative endeavors to encompass larger, multi-school samples or diverse subjects that extend beyond English in order to validate and generalize Chromebook-based learning strategies. Furthermore, it is essential to delve into longitudinal designs that track long-term student outcomes, such as retention and academic performance. In addition, comparative analyses with other devices, such as tablets, should be incorporated to identify optimal digital ecosystems.

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It is hoped that the findings of this research will offer sustainable benefits for the school and serve as an inspiration for the implementation of digital media in other educational institutions.

REFERENCES

- [1] A. Hamruni, Strategi Pembelajaran. Yogyakarta, Indonesia: Insan Madani, 2012.
- [2] A. Lieberman, M. Sztabnik, and S. Golan, "Improving academic success with technology-enhanced learning in secondary education: Chromebook implementation case studies," *J. Educ. Technol. Develop. Exchange*, vol. 7, no. 1, pp. 45-58, 2014.
- [3] A. P. Astuti, S. Suyoto, S. Sumarno, and E. Rumiarcu, "Penggunaan Chromebook Pada Peserta Didik Kelas V SD Negeri Sambirejo 02 Semarang," *Jurnal Educatio*, vol. 9, no. 2, pp. 938-942, 2023. doi: [10.31949/educatio.v9i2.4825](https://doi.org/10.31949/educatio.v9i2.4825).
- [4] C. Kustandi and D. Darmawan, Pengembangan Media Pembelajaran: Konsep & Aplikasi Pengembangan Media. Jakarta, Indonesia: Kencana, 2020.
- [5] C. Riyana, Media Pembelajaran. Jakarta, Indonesia: KEMENAG RI, 2012.
- [6] D. V. Craig and K. B. Patten, "E-literacy and literacy iPods, popular culture and language learning," *Int. J. Book*, vol. 4, no. 1, pp. 69-74, 2007.
- [7] E. Asanti, S. Istiyati, and F. P. Adi, "Analisis kemampuan guru dalam penggunaan perangkat chromebook pada pembelajaran IPAS di kelas V sekolah dasar," *Didaktika Dwija Indria*, vol. 12, no. 1, pp. 49-54, 2024. doi: [10.20961/ddi.v12i1.84427](https://doi.org/10.20961/ddi.v12i1.84427).
- [8] E. L. Deci and R. M. Ryan, Intrinsic Motivation and Self-Determination in Human Behavior. New York, NY, USA: Springer Science & Business Media, 2013.
- [9] E. T. Mulyani and S. L. Dwi, "Kepemimpinan kepala sekolah dalam mendorong integrasi chromebook sebagai alat pembelajaran di sekolah dasar," *Pendas: Jurnal Ilmiah Pendidikan Dasar*, vol. 9, no. 4, pp. 652-667, 2024.
- [10] H. D. Brown, Teaching by Principles: An Interactive Approach to Language Pedagogy, 2nd ed. New York, NY, USA: Addison Wesley Longman, 2001.
- [11] H. M. Huang and S. S. Liaw, "An analysis of learners' intentions toward virtual reality learning based on constructivist and technology acceptance approaches," *Int. Rev. Res. Open Distrib. Learn.*, vol. 19, no. 1, 2018. doi: [10.19173/irrodl.v19i1.3260](https://doi.org/10.19173/irrodl.v19i1.3260).
- [12] L. Donovan, T. Green, and K. Hartley, "An examination of one-to-one computing in the middle school: Does increased access bring about increased student's engagement?," *J. Educ. Comput. Res.*, vol. 42, no. 4, pp. 423-441, 2010.
- [13] L. S. Vygotsky and M. Cole, Mind in Society: Development of Higher Psychological Processes. Cambridge, MA, USA: Harvard Univ. Press, 1978.
- [14] M. Albataineh, B. Warren, and A. Al-Bataineh, "The effects of chromebook use on student engagement," *Int. J. Technol. Educ. Sci.*, vol. 8, no. 1, pp. 138-151, 2024. doi: [10.46328/ijtes.892](https://doi.org/10.46328/ijtes.892).
- [15] M. B. Miles and A. M. Huberman, An Expanded Sourcebook Qualitative Data Analysis, 2nd ed. Thousand Oaks, CA, USA: SAGE, 1994.
- [16] M. Kharbach, "10 Practical Ways to Use Chromebook in Class," *Educators Technology*, May 16, 2024. [Online]. Available: <https://www.educatorstechnology.com/2013/07/ways-to-use-chromebook-in-class.html>.
- [17] M. Koehler and P. Mishra, "What is technological pedagogical content knowledge (TPACK)?," *Contemp. Issues Technol. Teacher Educ.*, vol. 9, no. 1, pp. 60-70, 2009. doi: [10.1177/0022487108324556](https://doi.org/10.1177/0022487108324556).
- [18] M. L. Liaw, "Content-based reading and writing for critical thinking skills in an EFL context," *English Teach. Learn.*, vol. 31, no. 2, pp. 45-87, 2007.

- [19] M. Sulthon, P. Pujiastuti, and H. Retnawati, "What is the teacher's challenge on the developing of learning media to increase critical thinking ability and the character?," *Jurnal Prima Edukasia*, vol. 9, no. 1, pp. 55-64, 2021. doi: [10.21831/jpe.v9i1.38395](https://doi.org/10.21831/jpe.v9i1.38395).
- [20] P. Saine, "Implementation and assessment of technology-based common core state standards for English language arts: An exploratory study," *New England Reading Assoc. J.*, vol. 49, no. 1, p. 100, 2013.
- [21] R. E. Mayer, *Multimedia Learning*. New York, NY, USA: Cambridge Univ. Press, 2001. doi: [10.1017/CBO9781139164932](https://doi.org/10.1017/CBO9781139164932).
- [22] R. M. Maninger and M. E. Holden, "Put the textbooks away: Preparation and support for a middle school one-to-one laptop initiative," *Amer. Secondary Educ.*, vol. 38, no. 1, pp. 5-33, 2009.
- [23] R. M. Ryan and E. L. Deci, "Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions," *Contemp. Educ. Psychol.*, vol. 61, p. 101860, 2020. doi: [10.1016/j.cedpsych.2020.101860](https://doi.org/10.1016/j.cedpsych.2020.101860).
- [24] S. Wang and C. Vásquez, "The effect of synchronous computer-mediated communication on L2 learners' vocabulary acquisition," *Lang. Learn. Technol.*, vol. 16, no. 2, pp. 39-58, 2012.
- [25] T. Mainelli and M. Marden, "The economic value of Chromebooks for educational institutions," Sep. 2015.
- [26] Y. M. Jobirovich, "The Role of Digital Technologies in Reform of The Education System," *Amer. J. Soc. Sci. Educ. Innovat.*, vol. 3, no. 4, pp. 461-465, 2021. doi: [10.37547/tajssei/Volume03Issue04-72](https://doi.org/10.37547/tajssei/Volume03Issue04-72).
- [27] Y. T. Sung, K. E. Chang, and T. C. Liu, "The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis," *Comput. Educ.*, vol. 94, pp. 252-275, 2016. doi: [10.1016/j.compedu.2015.11.008](https://doi.org/10.1016/j.compedu.2015.11.008)