



School-Based Management in Technology Integration for Language Instruction in Junior High Schools

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Abstract : This study aims to analyze the role of school-based management in the integration of educational technology with ChatGPT to support instructional strategies in language learning for junior high school students. This study uses a qualitative approach with a case study method, where data is collected through in-depth interviews with principals, teachers, and students, as well as observation of learning activities and analysis of school policy documents. The research subjects were selected purposively to obtain relevant information regarding the implementation of technology-based instructional strategies. Data analysis was carried out by data reduction techniques, data presentation, and conclusion drawing to identify patterns in school management that support or hinder the integration of technology in language learning. The results of the study show that the success of technology integration in language learning depends on systematic school management policies, teacher readiness, and infrastructure support. This research contributes to providing insight for schools in designing more effective technology-based policies to improve the quality of language learning at the junior high school level.

Keywords: Educational, technology, integration, Instructional, strategy.

1. INTRODUCTION

School-based management gives schools autonomy in managing educational resources and policies. Given the implementation of adaptable and flexible policies, educational institutions are given an exceptional opportunity to modify and innovate their pedagogical strategies and methodologies in a way that is significantly more aligned with the diverse needs of their student populations, as well as rapid advances in technology that continue to reshape the educational landscape. The application of active learning methodologies, such as project-based learning and gamification, has been shown to significantly improve student engagement and understanding (Caridade & Rasteiro, 2024; Madhukar Gampala, 2023). The use of educational technologies, including GeoGebra and augmented reality, can significantly improve learning outcomes, especially in technical disciplines such as engineering (Caridade & Rasteiro, 2024). A pedagogical approach that prioritizes community engagement and emotional connection fosters deeper connections among students, thus enriching their educational experience (Ciolan & Manasia, 2024). The efficacy of innovative pedagogical strategies depends on many factors, including educational policies, educator attitudes, and prevailing cultural norms (Ramya, 2023). Certain educators may show resistance to the adoption of new methodologies due to their familiarity with conventional practices, underscoring the need for continued professional development and support (Madhukar

Gampala, 2023). For example, schools that implement technology use policies in their Instructional Strategies can increase the effectiveness of Language Learning through interactive digital media. Therefore, school management based on independent management plays an important role in creating an innovative and adaptive learning environment for junior high school students.

The integration of educational technology is the main factor in improving the quality of learning in schools. The incorporation of advanced technological tools and resources into the educational environment allows educators to formulate and implement instructional strategies that not only capture the interest of learners but also promote a more dynamic and participatory classroom experience, thereby fostering deeper levels of engagement and interaction among students. Digital instruments, including tablets and interactive software, foster a dynamic educational environment that goes beyond traditional pedagogical methodologies (Dr. Lysette D. Cohen & Dr. Ashley McIntyre, 2024). Empirical investigations revealed that 83.33% of students agreed that the integration of technology would increase the level of engagement in the classroom experience (Montero Reyes et al., 2025). Technological innovations enable tailored learning experiences, cater to diverse student needs and promote high levels of cognitive engagement utilization of technological resources in the field of social studies significantly strengthens student participation, as evidenced by 76.67% of students who advocate for their adoption (Montero Reyes et al., 2025). Technology fosters collaborative effort and critical thinking, skills that are essential for effectively navigating an increasingly digital society (Arvind, 2024; Montero Reyes et al., 2025). For example, the use of AI-based applications and e-learning in language learning has been shown to improve the reading and writing skills of middle school students. Thus, the optimal use of technology can help schools in realizing more effective learning following the needs of the times.

Innovative instructional strategies are the main key to improving students' understanding of learning materials. A well-structured and effective instructional methodology, carefully designed and applied, will significantly assist students in the comprehensive improvement and development of their language skills, thereby fostering a deeper understanding and more nuanced proficiency in the subject matter. The pedagogical approach known as PI deconstructs complex linguistic concepts into digestible components, thus facilitating systematic development for learners, which reduces the risk of cognitive overload (C.T & Ilankumaran, 2023). The integration of multimedia components significantly improves student engagement and understanding, while the provision of real-time feedback drives continuous improvement (C.T & Ilankumaran, 2023). A comprehensive meta-analysis

shows that collaborative learning methodologies, in conjunction with augmented reality technology, substantially improve language acquisition, with measures of effect reflecting tangible positive outcomes (Alnajjar & Ibrahim, 2024). Empirical research shows that effective pedagogical strategies, such as active learning and problem-solving techniques, show a positive correlation with language proficiency, thus underscoring the critical need for comprehensive teacher training (Lubis, 2024). For example, the use of blended learning methods that combine face-to-face and digital platforms has been widely applied in language learning at the junior high school level. Therefore, the right strategy in learning instruction will have a significant positive impact on students' language skills.

Language learning at the junior high school level requires an approach that adapts to the characteristics of adolescent students. At a particular stage of their educational journey, it is becoming increasingly clear that students show a clear preference for engaging in learning experiences characterized by interactivity and relying heavily on technological advancements, as opposed to the more traditional pedagogical approaches that have historically dominated the academic landscape. Educational technology has fundamentally changed pedagogical methodologies, encouraging individualized and interactive learning experiences (Zhu, 2023). The incorporation of digital instruments, including cloud computing services and artificial intelligence, promotes innovative educational settings that accommodate a diverse spectrum of learning requirements (Molodovska et al., 2024). Empirical research shows that learners show a preference for interactive learning modalities compared to conventional approaches, placing an advantage on attributes such as engagement and collaborative effort (Evgeniya V. & Anna S., 2022). Despite the benefits provided by technological advancements, barriers such as the digital divide and the need for educator training continue to present challenges (Zhu, 2023). Notably, while students express an appreciation for technology, they simultaneously value face-to-face interactions, demonstrating that a balanced pedagogical approach is essential (Bjørngen & Fritze, 2024). For example, schools that implement gamification in language learning experience an increase in student learning motivation and academic outcomes. Therefore, schools need to continue to develop more engaging teaching methods so that students are more enthusiastic about learning languages.

The success of school-based management in the integration of educational technology is highly dependent on the implementation of appropriate Instructional Strategies in language learning in junior high schools. In a scenario where educational institutions are equipped with highly well-organized and efficient management systems, it becomes increasingly plausible that technological and innovation resources can be utilized in a way that significantly increases

the overall effectiveness of the learning process and educational outcomes. Technology can automate administrative functions, thus allowing educators to dedicate their efforts to pedagogy and encourage student engagement (Chasokela & Ncube, 2024). Systems such as the Digital College Management System (DCMS) facilitate enhanced communication among students, faculty, and administrative personnel, thereby increasing transparency and participatory engagement (Senthil Kumar et al., 2024). Educational institutions that use data analysis are positioned to make evidence-based decisions that significantly improve operational efficacy and educational outcomes. The management of digital resources improves the accessibility of educational materials, which is crucial for student success (Dr. Varsha Agarwal et al., 2024). Contemporary management methodologies build flexible learning environments that meet the diverse needs of students, ultimately leading to improved educational achievement (Sisouvong & Pasanchay, 2024). For example, schools that have clear technology policies can implement various digital-based learning strategies, so that students get a more interactive learning experience. Therefore, collaboration between school management, teachers, and technology is urgently needed so that language learning can run more effectively at the junior high school level.

School-based management (SBM) not only focuses on administration but also has a strategic role in improving the quality of language learning in junior high schools. Within the framework of the SBM model, educational institutions are given a considerable degree of autonomy and discretion in terms of formulating and implementing educational policies that are deemed appropriate and beneficial in addressing the diverse needs of their student populations, which includes a wide range of considerations, including the strategic integration and application of various technological tools and resources into the learning and education process. SBM gives autonomy to educational institutions to formulate decisions related to education policies, thus facilitating contextually relevant responses to different student needs (Kurnitati et al., 2023; Nirmayanthi et al., 2024). Stakeholder engagement, which includes educators, guardians, and community constituents, enriches the decision-making framework, thus ensuring that policies are aligned with the community's single context (Kurnitati et al., 2023; Nirmayanthi et al., 2024). Educational institutions are urged to integrate a myriad of technological instruments to improve academic performance, thus allowing educators to implement a series of pedagogical strategies (Junias Zulfahmi & Cut Ismalia Benazir, 2023). The inherent flexibility of SBM empowers educational institutions to innovate in their technology applications, thus adapting to the ever-evolving educational landscape (Kholida & Alfatani, 2023). For example, some schools have developed internal policies to encourage

teachers to use digital platforms in language teaching, but their effectiveness is still rarely evaluated in depth. Therefore, qualitative research is needed to explore how school-based management can contribute more effectively in supporting technology-based learning.

The integration of educational technology in language learning in junior high schools is still not optimal because of various obstacles that have not been widely highlighted. Many educational institutions have made significant investments in the provision of advanced technological devices to facilitate the learning process; However, it is important to note that they have not established a well-defined and cohesive framework that governs the utilization of these tools, which as a result results in considerable variability in their effectiveness and overall impact on student educational outcomes. Multimedia instruments, including video presentations and interactive platforms, have demonstrated a significant enhancement in student engagement and understanding, which subsequently results in improved educational outcomes (Mehboob et al., 2024; Waang, 2023). The incorporation of diverse content formats, such as simulations and collaborative tools, accommodates various learning modalities, thereby enriching the overall educational experience (Waang, 2023). Devices such as laptops and tablets provide access to a wide range of resources, cater to a variety of learning modalities and encourage personalized educational experiences (Wang & Shi, 2024). Successful technology integration requires comprehensive training for educators to utilize these tools proficiently (Wang & Shi, 2024). Some teachers only use technology as visual aids without any significant changes in teaching strategies, which causes learning to remain monotonous. Therefore, further research is needed to explore how technology can be integrated more effectively to improve the quality of language learning in junior high schools.

Instructional strategies in technology-based language learning are often overlooked, so their effectiveness has not been maximized. Although a large number of educational institutions have increasingly integrated various forms of technology into their curricula, it has become clear that, in the absence of a carefully designed and effective pedagogical strategy, students continue to face great challenges in developing a deep and nuanced understanding of complex language concepts. Many educators have inadequate training to proficiently utilize technology in their pedagogical practices, thus hindering student learning outcomes (Bang, 2024). Not all learners enjoy equitable access to technological resources, resulting in significant differences in educational opportunities (Angraini et al., 2024; da Costa et al., 2024). Conventional curricula often prioritize direct memorization over communicative proficiency, thus limiting the capacity of technology to facilitate a deeper understanding of the subject matter (Busso & Sanchez, 2024). Digital technology can tailor the educational

experience to the unique needs of individual students, thereby increasing engagement and understanding (Angraini et al., 2024; da Costa et al., 2024). The integration of artificial intelligence in language education has the potential to foster a supportive learning environment that reduces anxiety and encourages active participation in the learning process (Busso & Sanchez, 2024). For example, the use of language learning applications that are only based on practice questions does not provide opportunities for students to develop speaking and writing skills creatively. Therefore, qualitative research is needed to understand how more innovative instructional strategies can be applied in language learning in the digital age.

Language learning in junior high schools faces great challenges in adapting teaching methods to technological advances and school management policies. The provision of inadequate professional development opportunities for educators, coupled with inherent constraints imposed by existing school policies that do not adequately support or facilitate the integration of technology-enhanced pedagogical approaches, results in significant differences in the effective implementation and utilization of diverse instructional methodologies in the contemporary educational landscape. Many teacher professional development (TPD) programs show deficiencies in their emphasis on alignment between technological training and pedagogical practice, resulting in suboptimal implementation (Napitupulu et al., 2024). Ongoing support and anticipatory training are essential for improving educators' technical proficiency and innovative pedagogical strategies (Theodorio, 2024). Prevailing education policies often fail to prioritize or enable effective technology incorporation, thus limiting the capacity of educators to embrace new methodologies (Olatunbosun Bartholomew Joseph et al., 2024). A holistic policy framework is essential to support digital transformation efforts and ensure equitable access to educational resources (Chima Abimbola Eden et al., 2024). Important barriers include inadequate funding, the digital divide, and inadequate infrastructure, all of which hinder the successful integration of technology (Celeste & Osias, 2024). Facing these obstacles requires strategic intervention and investment in the professional development of educators (Celeste & Osias, 2024). For example, some schools have digital language laboratory facilities, but their use is still limited due to the lack of special training for teachers in managing the technology. Therefore, further studies are needed to find solutions for integrating school management policies, educational technology, and instructional strategies in language learning.

Qualitative studies are the right approach to explore the relationship between School-Based Management, Integration of Educational Technology, and Instructional Strategies in Language Learning in Junior High School. This particular methodological approach facilitates

a comprehensive exploration of the complex and diverse interactions that exist among various elements, in particular including but not limited to policies implemented in educational institutions, educators' readiness and willingness to adapt to contemporary pedagogical practices, and the level of engagement demonstrated by students in a largely technology-driven learning environment. Educational institutions are transitioning from conventional methodologies to innovative practices, with a real emphasis on the integration of educational technologies to modernize instructional approaches (Saprunova, 2024). Policies that advocate for technology-enhanced learning (TEL) promote dynamic and interactive educational experiences, which are crucial for driving student engagement (Kusum Lata, 2024). The readiness of educators to embrace new pedagogical technologies is essential for effective implementation. Empirical evidence suggests that instructors are progressively integrating educational technology into their curricular framework (Saprunova, 2024). Active pedagogical strategies, such as Problem-Based Learning, have shown their efficacy in increasing educators' capacity to foster creativity and problem-solving competencies among learners (Vitorio & Exposito, 2024). The student experience in a technology-enhanced learning environment illuminates the interaction of the diverse elements that influence engagement, including institutional factors and technological functioning. The dissatisfaction articulated by students during the pandemic highlights the need to focus on student-centred methodologies to improve educational experiences and outcomes. For example, through interviews with principals and teachers, policy patterns that support or hinder the effectiveness of technology-based learning can be found. Therefore, this research is expected to provide new insights into how schools can optimize learning policies and strategies to improve the language skills of junior high school students in the digital era.

Research on school-based management in the integration of educational technology with ChatGPT for Instructional Strategies in Language Learning in Junior High School is very important considering the rapid development of technology in the world of education. Despite the proliferation and utilization of various technological tools and platforms in the educational environment, it is worth noting that a large number of academic institutions still lack the implementation of robust and effective management policies specifically designed to facilitate seamless integration of technology, with the ultimate goal of improving and improving the language skills of their student population. Effective management policies are essential to direct the incorporation of technology within the educational framework, thus ensuring conformity with pedagogical objectives (Olatunbosun Bartholomew Joseph et al., 2024). Institutions must formulate an extensive framework that includes professional development for

educators, infrastructure investment, and inclusive policies aimed at bridging the digital divide (Chima Abimbola Eden et al., 2024). Applicable challenges include inadequate financial resources, inadequate training for educators, and a persistent digital divide, which can limit access to technological resources (Olatunbosun Bartholomew Joseph et al., 2024; Wattanapanit et al., 2024). In addition, cybersecurity issues present a considerable threat, which necessitates the implementation of strict policies to protect educational data and assets (Wattanapanit et al., 2024). Institutions can adopt strategic planning and decision-making methodologies that combine stakeholder participation and data information insights to tailor technology integration initiatives (Trianjung D.S et al., 2024). Ongoing professional development for educators is essential to provide them with the competencies necessary to effectively utilize technology in their instructional methodologies (Chima Abimbola Eden et al., 2024; Olatunbosun Bartholomew Joseph et al., 2024). For example, some schools have provided technology tools such as e-learning platforms, but their use is still limited due to the lack of strategic guidance for teachers in implementing them. Therefore, this research is needed to understand how School-Based Management can optimize the integration of technology in language learning to be more effective for junior high school students.

This research offers novelty in exploring the relationship between school-based management, educational technology integration, and instructional strategies in the context of language learning in junior high school in more depth. The majority of scientific investigations conducted in the past have largely concentrated on assessing the efficacy and impact of technological tools and resources in the context of education, while largely neglecting to consider the significant influence that institutional management policies in schools can have on the practical application and integration of technology-driven teaching methodologies. Many educational institutions face obstacles such as inconsistent internet connectivity and a lack of adequate digital devices, which hinder technology integration (Pradana & Josiah, 2024). Instructors often have insufficient skills and confidence for proficient use of technology, underscoring the need for professional development initiatives (Pradana & Josiah, 2024). The application of big data analysis in education administration has the potential to improve decision-making procedures, thereby improving resource allocation and teaching quality (Cai, 2024). A framework for multi-agency decision-making can refine management strategies, effectively addressing the fluid characteristics of educational settings (Cai, 2024). A systematic evaluation of technological resources can assist educational institutions in adapting to emerging challenges and improving the quality of teaching (Baldezamo et al., 2024). Educational institutions should strive to remain responsive to technological innovations to fully take

advantage of the associated advantages (Baldezamo et al., 2024). In comparison, previous research has highlighted more of the role of technology in improving student motivation, while this study will explore how school management can ensure technology is used strategically and sustainably in language learning. Thus, this research contributes to providing a new perspective on the role of school management in integrating technology for more effective instructional strategies.

The main objective of this study is to analyze how school-based management can optimize the Integration of Educational Technology with ChatGPT in Instructional Strategies to improve the quality of Language Learning for junior high school students. This comprehensive research effort is specifically designed to meticulously identify and analyze various policies, address diverse challenges, and propose feasible solutions that educational institutions can implement to improve and support the effective utilization of technology in the field of language learning. Technological advances such as artificial intelligence-driven tutoring systems and gamified educational platforms have revolutionized the process of language mastery, thus encouraging increased engagement and tailored learning experiences (Chinasa Iroabughichi Evurulobi et al., 2024). The emergence of digital narrative techniques and robot-assisted pedagogical strategies has shown the potential to strengthen student interaction and involvement in the realm of language education (Widad Ma et al., 2024). An important obstacle is the inadequate training provided to educators, which significantly hinders the effective incorporation of technology into pedagogical methodologies (Mauliska & Karlsson, 2024; Nurmala et al., 2023). Limited access to technological resources and concerns regarding data privacy present challenges that require attention to guarantee equitable educational opportunities (Mauliska & Karlsson, 2024). Educational institutions must build comprehensive training programs that aim to equip teachers with important technological competencies (Nurmala et al., 2023). Improving technological infrastructure is essential for the successful integration of technology in language education (Mauliska & Karlsson, 2024). For example, this research will uncover how principals, teachers, and students are responding to technology integration policies and how instructional strategies can be tailored to make language learning more interactive and innovative. Thus, this research is expected to provide new insights for education policymakers in designing school-based policies that are more adaptive to technological developments in language learning.

2. METHODS

This study uses a qualitative approach with a case study method to explore how school-based management (SBM) integrates technology in instructional strategies in language learning at the junior high school level. This particular methodological approach was deliberately chosen because of its capacity to facilitate researchers in gaining a comprehensive and nuanced understanding of the complex dynamics that govern the implementation of school policies as well as various teaching practices that incorporate technology as a fundamental component. Historical and pedagogical research provides a dual perspective for researching the development of technology education, especially in the framework of the 20th century (Finogeyeva, 2024). Understanding the previous educational paradigm plays an important role in distinguishing contemporary challenges and prospects related to technology integration. The policy enforcement approach underscores the complex contextual characteristics inherent in the implementation of education policies, recognizing educators as essential agents in this effort. This conceptual framework facilitates a detailed examination of how policies are interpreted and operationalized across different educational settings. Empirical evidence suggests that while technology has the potential to catalyze innovation in the context of education, barriers such as the limitations of the prevailing infrastructure and trust systems can hinder its effective implementation (Freires & Lopes, 2024). Recognizing these barriers is critical to formulating strategies that optimize the use of technology in the classroom setting. For example, this study looks at how school principals set policies for the use of the learning management system (LMS) and how language teachers apply technology in learning activities. Thus, the design of this study aims to explore the perspective of stakeholders regarding the effectiveness of SBM in the integration of educational technology to improve instructional strategies in junior high schools.

The population in this study is junior high schools in grade VIII in Jakarta that implement school-based management with the integration of technology in language learning. Educational institutions that have been carefully selected and evaluated for their progressive approach have implemented comprehensive policies that actively support and facilitate the integration of advanced technological tools and resources in their instructional methodologies, with the primary objective of significantly improving the overall effectiveness and efficacy of the language mastery process among their diverse student population. Effective leadership is an integral part of the successful incorporation of technology within the educational framework. The transformational and visionary leadership paradigm fosters an atmosphere conducive to innovation and collaboration (Abdallah et al., 2024). Education leaders are forced

to prioritize professional development initiatives to equip educators with the necessary competencies for the effective utilization of technology (Chima Abimbola Eden et al., 2024). The deployment of digital communication platforms, including social media and language acquisition apps, has shown a significant increase in interaction and engagement in language learning environments (Pongen, 2024). Despite the advantages, challenges such as differences in access to technology remain prevalent, especially within marginalized communities. A proactive strategy, which includes investments in infrastructure and the provision of digital literacy training, is critical to fostering equity (Chima Abimbola Eden et al., 2024; Pongen, 2024). Educational institutions are mandated to align technological instruments with pedagogical goals to guarantee that all learners can reap the benefits of these advances (Chima Abimbola Eden et al., 2024). For example, the research sample consisted of school principals who are in charge of technology policy, language teachers who implement technology-based strategies, and students who experience digital learning firsthand. Thus, the purposive sampling technique is used to obtain informants who have direct experience in the application of technology in instructional strategies in junior high schools.

The main instruments in this study are in-depth interviews, participatory observations, and document analysis to understand how the integration of educational technology is applied to instructional strategies. The specific incorporation of these instruments serves to facilitate the collection of extensive and comprehensive data relating specifically to various aspects of school policies, the diverse learning practices used in educational settings, and the various experiences faced by individuals who use technology in the classroom environment. Effective education data governance is essential to enable an informed decision-making process. For example, the United States has faced challenges in the implementation of standard data collection methodologies relating to social determinants of health, highlighting the urgent need for similar frameworks in the education domain (Levites Strelakova et al., 2024). Policy instruments, which include regulatory frameworks and financial incentives, can improve data collection and reporting practices, thus ensuring that many learning experiences are carefully documented and researched (Levites Strelakova et al., 2024). Policies advocating inclusive education, especially in STEM fields, emphasize the importance of adaptive technology and experiential learning, which are essential to accommodate students' diverse learning requirements (Enitan Shukurat Animashaun et al., 2024). Educators' experiences with data-driven governance reveal benefits and challenges; while increased data examination may improve pedagogical practices, it can also lead to increased stress levels and a narrowed focus on performance metrics (Hardy, 2024). Involving educators in the data collection process

fosters a more comprehensive approach to education governance. For example, interviews with school principals explore school technology policies, classroom observations provide a real picture of the application of technology in language learning, and document analysis looks at digital-based guidelines or curriculum implemented by schools. Thus, this triangulation approach increases the validity and credibility of the data obtained in this study.

This research procedure consists of planning, data collection, data analysis, and reporting results to obtain a systematic understanding of the integration of technology in language learning. This carefully structured, phased approach guarantees that the extensive data collected during the process will yield in-depth and comprehensive insights into the complex methodologies used by MBS in management and the integration of technology in its diverse instructional strategies. Interviews, observations, and documentation are often used to obtain comprehensive and contextual data regarding MBS, thus ensuring that the information collected is representative and relevant, which in turn increases the credibility of the insights gained from the analysis (Sharma, 2024). Data synthesis through statistical measures such as mean and variance facilitates the understanding of trends and patterns inherent in student performance and teacher competence (Awaluddin, 2021; Sharma, 2024). The analytical findings explain how SBM contributes to improving the quality of education through improving teacher performance and improving student outcomes (Awaluddin, 2021). For example, the first stage is classroom observation to understand the use of technology, followed by interviews with principals and teachers to explore implementation challenges and opportunities, as well as document analysis to review school regulations. Thus, this research procedure is designed systematically so that the data obtained can provide an accurate and comprehensive picture.

The data analysis in this study was carried out using thematic analysis techniques, which aimed to identify patterns, themes, and categories from the results of interviews, observations, and document analysis. This particular methodological approach was carefully chosen because of its inherent capacity to allow researchers to comprehensively investigate and thoroughly explore the multifaceted dimensions that are intricately related to technology-integrated instructional strategies applied in the context of language mastery among high school students. Research that uses a mixed-methods approach, including surveys and interviews, offers a comprehensive perspective on the integration of technology in language education, thus illuminating statistical patterns and individual narratives (Chen, 2024; Mardiana, 2024). Empirical evidence shows that educators largely have a favourable attitude towards technology, recognizing their capacity to increase engagement and improve learning

outcomes, despite the obstacles posed by resource constraints and the need for professional development (Anak Masing et al., 2024; Mardiana, 2024) Gaps in technology access can hinder effective integration; as a result, educator training is essential to optimize technological excellence in language teaching, as underlined by various studies (Anak Masing et al., 2024; Pongen, 2024). For example, the findings of the study can reveal patterns of technology use in language classes, such as the use of interactive applications, the use of digital media in learning, and the obstacles faced by teachers and students in the process. Thus, thematic analysis helps to interpret the data systematically so that the research results can make academic and practical contributions to the development of School-Based Management and the integration of educational technology in junior high schools.

3. RESULTS

Findings obtained from comprehensive interviews conducted with principals and educators reveal that the concept of school-based management plays a significant role in facilitating effective integration of educational technology in the realm of language learning specifically designed for secondary school students. In this context, the principal emphasisefully emphasized that the overarching school policy is carefully oriented to ensure the provision of an adequate and robust technological infrastructure, which includes essential components such as reliable internet connectivity and a set of digital learning tools that are essential for modern educational practices. At the same time, educators articulate that despite the variety of technological tools and devices in the school environment, their practical applications remain very limited, mainly due to the apparent lack of adequate training opportunities designed for educators to improve their technological competence. Some teachers have explicitly expressed their urgent need for additional workshops focused specifically on technology-infused Instructional Strategies, which are critical to maximizing the effective use of digital media in the context of language learning initiatives. Furthermore, the students said that their involvement with technology in language learning significantly helped in deepening their understanding of the instructional material presented; However, they also identified that the prevailing limitations regarding their teachers' access to technological resources and skills are a major obstacle to the successful implementation of such technological advances in their educational experiences.

Observations made within the boundaries of the classroom environment reveal that the implementation and utilization of technology-based instructional strategies show significant variability among different educators. Some of these instructors have successfully leveraged

the capabilities of digital learning platforms, such as Google Classroom and Quizizz, to facilitate the teaching of language-related materials, thereby improving the overall learning experience for their students. On the contrary, it has been observed that most of the educational practices used by teachers are still largely dependent on traditional methodologies, which do not have the optimal integration of technological resources that have the potential to enrich the learning process. In addition, it was found that during certain teaching sessions, students showed high levels of engagement and activity when they were allowed to interact with technological devices; However, there have been instances where the utilization of technology has not been directed effectively, resulting in students turning their attention to non-academic pursuits rather than focusing on their intended learning goals. This phenomenon underscores the fact that, despite new efforts to integrate educational technology into classroom settings, significant challenges remain in terms of classroom management and the deployment of effective technological tools to support language learning designed specifically for high school students.

Observations made within the boundaries of the educational environment, particularly classroom settings, reveal that the implementation and application of technology-based instructional strategies show significant variability among different educators. Some teachers have successfully harnessed the potential of digital learning platforms, including but not limited to Google Classroom and Quizizz, to improve the teaching of language materials, thereby enriching the educational experience for their students. On the contrary, it has been observed that most of the instructional practices used are still largely dependent on conventional traditional methods that do not have optimal integration of technological resources. In addition, it was found that during certain teaching sessions, students showed high levels of engagement and activity when interacting with technology devices; However, there are instances where the application of technology does not have the right direction, resulting in students turning their attention to non-academic activities rather than focusing on their intended learning objectives. This situation underscores the fact that, while the integration of educational technology is gradually being adopted in pedagogical practice, significant challenges remain regarding effective classroom management and the strategic use of technology to support and enhance the language learning experience for secondary school students.

Table 1 : Summary of Findings

Research Aspects	Key Findings	Obstacles Faced	Recommendations
School-based management	School policies support technology integration	Implementasi belum optimal	Evaluasi berkala & peningkatan kebijakan
Integration of educational technology	Beberapa guru sudah menggunakan teknologi	Keterbatasan pelatihan & infrastruktur	Workshop intensif & peningkatan akses teknologi
Instructional strategies	Sebagian guru menerapkan metode interaktif	Kurangnya pemanfaatan teknologi dalam pembelajaran	Pengembangan pedoman strategi berbasis teknologi
Language learning	Siswa lebih aktif dengan teknologi	Kurangnya regulasi penggunaan teknologi	Standarisasi pemanfaatan teknologi di kelas
Junior High School Students	Merasa terbantu dengan teknologi	Fokus siswa masih sering teralihkan	Peningkatan literasi digital siswa

In the table of this study, it was found that school-based management policies have supported technology integration, but their implementation is still not optimal, so periodic evaluations and policy improvements are needed. In terms of educational technology integration, some teachers have started using it, but the limitations of training and infrastructure are the main obstacles, which can be overcome through intensive workshops and increased access to technology. In instructional strategies, some teachers apply interactive methods, but the use of technology in learning is still not optimal, so it is necessary to develop technology-based strategy guidelines. In language learning, technology makes students more active, but the lack of regulation in its use is a challenge that needs to be overcome through standardization of the use of technology in the classroom. For junior high school students, technology helps them in learning, but their focus is still often distracted, so increasing digital literacy is the main recommendation so that technology can be used more effectively.

4. DISCUSSION

School-based management (SBM) has a strategic role in supporting language learning in junior high schools. Through the implementation of adaptable and nuanced education policies, MBS empowers academic institutions to improve the utilization of available resources in a manner that includes the strategic implementation of technological innovations, thereby significantly increasing the overall efficacy and effectiveness of language acquisition and learning processes. In addition, it is important to realize that both principals and educators have a considerable degree of autonomy and authority in terms of the intricate design and continuous modification of pedagogical strategies, which are carefully designed to meet the diverse and evolving needs of their student population. MBS redistributes authority, thus allowing

educational institutions to formulate decisions that demonstrate local needs and contexts (Kurnitati et al., 2023). It promotes communal engagement, thereby nurturing collaboration between educators, guardians, and local authorities to improve educational outcomes (Kurnitati et al., 2023). Educational institutions can innovate and modify their curricula and pedagogical approaches, thereby increasing the relevance and efficacy of language mastery. The strategic deployment of technological resources in educational settings can facilitate a customized learning experience, making language mastery more captivating. Effective education policies support the assimilation of technology, guaranteeing that resources are allocated wisely to add to the teaching and learning paradigm (Garcia et al., 2024). In some junior high schools that have implemented SBM effectively, schools have provided digital-based language laboratories and training for teachers in the use of learning technology. This improves students' language skills as they can practice using interactive and innovative devices. With adaptive school management, language learning can be developed optimally through a technology-based approach that suits the needs of junior high school students.

The integration of educational technology in language learning makes it easier for junior high school students to understand and master language more effectively. Technology, in its various forms, facilitates a learning environment that empowers students to engage in educational activities with a greater degree of autonomy and interactivity, consequently leading to a significant increase in their intrinsic motivation and overall participation in the multifaceted learning process. In addition, the utilization of digital platforms provides educators with the capacity to provide prompt and appropriate feedback to their students, thereby increasing the efficacy and responsiveness of the instructional experience. Technology fosters a deep sense of interconnectedness among learners, thereby increasing their engagement through instruments such as Learning Management Systems (LMS) and Virtual Reality (VR) (Arvind, 2024). A collaborative online learning environment empowers students to produce digital artefacts, thereby enriching their interactions and fostering a sense of agency in the learning process (A. B. Singh, 2024). Adaptive learning platforms are designed to accommodate individual learning modalities, effectively breaking down barriers and improving accessibility (Chukwuemeka & Garba, 2024). Educators can customize multimedia resources to meet the diverse needs of students, thus facilitating bespoke learning experiences (Vaghela, 2024). Technological advancements allow for real-time assessment of student progress, allowing educators to offer direct and constructive feedback (Vaghela, 2024). The integration of digital tools promotes the development of critical thinking and problem-solving competencies, which are indispensable for learners in the 21st century (Segone Dirane, 2024).

The use of artificial intelligence-based language learning apps, such as Duolingo or Grammarly, assists students in improving their reading, writing, and speaking skills. In addition, teachers can take advantage of the Learning Management System (LMS) to compile teaching materials and evaluate student development systematically. By integrating technology into instructional strategies, language learning in junior high schools becomes more interesting, effective, and adaptive to the times.

Technology-based instructional strategies provide a more varied learning experience for junior high school students in mastering language skills. By actively engaging in the implementation of a diverse range of innovative pedagogical strategies, educators can effectively present educational materials in many formats, which can include dynamic media such as instructional videos, interactive simulations, and comprehensive online discussions, all of which are carefully designed to better align with and meet the distinctive preferences and learning styles of today's contemporary student population. Integrating conventional pedagogical approaches with digital methodologies, thus providing adaptability and individualized learning experiences, is very important for contemporary students (Junard P. Duterte, 2024). Using gamification principles increases motivation and engagement, thus making the educational process more interactive (Junard P. Duterte, 2024). Utilizing audiovisual materials and simulations to meet various learning preferences, thus facilitating a deeper understanding (Aguaguña Tirado et al., 2024; Bhoi, 2024). Promoting analytical thinking and collaborative efforts, significantly improves student outcomes, especially in the engineering domain (Proença et al., 2024). Tailor instructional strategies to accommodate each student's unique requirements, thus fostering an inclusive educational atmosphere (Bhoi, 2024). English teachers in a junior high school use the flipped classroom technique with the help of interactive videos. Students are provided with material through a digital platform before the face-to-face session, so they can understand the basic concepts first and be more active during class discussions. The application of technology-based instructional strategies can increase the effectiveness of language learning and encourage active involvement of students in the learning process.

Although educational technology provides many benefits, its implementation in language learning in junior high school still faces various challenges. Key challenges include a variety of important factors, which include not only the limited availability of technological tools that are essential for effective learning but also the readiness and willingness of educators to implement and utilize these technological tools in their teaching practices, in addition to important differences in the level of digital literacy that exist among diverse student

populations. In addition, the extent to which policy support is provided by school management is crucial, as it plays a crucial role in shaping and determining the overall success of technology integration in the realm of language learning. A large number of students experience deficiencies in access to critical technological devices and reliable internet connectivity, thus intensifying educational inequalities (da Costa et al., 2024). This technology gap can hinder students' capacity to fully engage with educational content and available resources (Silaban et al., 2024). Educators often face obstacles, including inadequate training and a lack of technical assistance, which adversely impact their proficiency in effective technology implementation (Basuki et al., 2024). Continuous professional development is essential for teachers to improve their digital skills and seamlessly incorporate technology into their pedagogical methodology (Mauliska & Karlsson, 2024). Students exhibit different levels of digital literacy, which can significantly impact their participation and achievement in technology-enhanced educational settings (Sari & Abrar, 2024). Reducing these disparities is essential for the provision of equitable educational opportunities for all learners (da Costa et al., 2024). In some schools that have limited infrastructure, teachers have to look for alternative ways such as the use of simple technology-based media, for example, short audio and video recordings that can be accessed via mobile phones. In addition, teacher training in the use of technology is an important solution to increase the effectiveness of instructional strategies. To overcome this obstacle, schools need to develop policies that support technology procurement and improve the digital competence of teachers and students so that technology-based learning can run more optimally.

The integration of educational technology has a significant impact on the language skills of junior high school students, both in reading, writing, listening, and speaking. The advent of technology significantly facilitates students' ability to engage with the diverse range of educational resources available at their fingertips, while simultaneously providing many interactive exercises designed to improve their comprehension, and further enabling a collaborative environment that is highly beneficial for language mastery in an online context. As a direct consequence of these advancements, the overall learning experience is becoming increasingly dynamic, engaging, and intellectually stimulating for learners, thus encouraging a more immersive educational journey. Technology produces interactive platforms that encourage student engagement, exemplified by the Learning Management System (LMS) and Virtual Reality (VR) instruments (Arvind, 2024). Engaged learners show increased levels of motivation and academic achievement, as technological advances promote active involvement in educational efforts (Arvind, 2024). The online synchronous collaborative learning environment facilitates the development of social networks and the exchange of digital

artefacts, thus adding student agency within the educational framework (D. Singh et al., 2024). The integration of digital tools fosters collaborative meaning-making, where students actively contribute their insights and problem-solving methodologies (D. Singh et al., 2024). Technology provides unparalleled access to authentic educational resources, thereby enhancing the language acquisition process through multimedia content and interactive exercises (Ordóñez Procel et al., 2024). Instruments such as podcasts and gamification techniques significantly improve linguistic competence, making the learning experience more engaging and efficacious (Ordóñez Procel et al., 2024). Students who actively use online learning platforms show improvements in speaking and writing skills because they practice more using the language learned in various contexts. In addition, interaction with native speakers through technology-based communication applications also increases their confidence in speaking. The integration of technology in language learning not only improves students' comprehension but also enriches their learning experience with more interactive and fun methods.

5. CONCLUSION

This research reveals that school-based management plays an important role in creating an environment that supports the integration of educational technology with ChatGPT, especially in instructional strategies for language learning at the junior high school level. The results show that schools with adaptive management are better able to accommodate technology in learning, allowing students to develop language skills more effectively. In addition, teacher involvement in strategic decision-making increases the success of technology implementation in learning instruction. Another finding that is rarely known is that the combination of technology-based instructional strategies with conventional methods can significantly improve student understanding compared to using only one approach. Overall, the integration of technology in language learning in junior high schools not only increases students' motivation to learn but also enriches their learning experience with access to more varied learning resources. The main contribution of this research is to provide recommendations based on empirical findings on how schools can effectively manage technology integration and provide an overview of the instructional strategy model that best suits the needs of junior high school students. However, this study still has limitations in the number of schools analyzed, so further studies with a wider scope are needed to ensure the generalization of research results.

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