



Innovation In Education Management To Improve Learning Quality

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Abstract. *Innovation in education management is essential to improve the quality of learning in an ever-evolving era. This study uses the literature method. The results show that innovative strategies that can be implemented by educational institutions to improve student engagement and the effectiveness of the learning process include the utilisation of digital technology, teacher professional development and collaboration with external stakeholders. Then, to implement these strategies, there are common challenges such as resistance to change and budget constraints that can be a barrier to implementing innovation. With a comprehensive and planned approach, as well as high commitment from all members of the organisation, these innovations are expected to provide significant improvements to the quality of education and student learning outcomes.*

Keywords: Innovation, Education Management, Learning Quality.

Abstract. Inovasi dalam manajemen pendidikan sangat penting untuk meningkatkan kualitas pembelajaran di era yang terus berkembang. Kajian pada penelitian ini menggunakan metode literatur. Hasil penelitian menunjukkan bahwa strategi inovatif yang dapat diterapkan oleh institusi pendidikan untuk meningkatkan keterlibatan siswa dan efektivitas proses pembelajaran, mencakup pemanfaatan teknologi digital, pengembangan profesionalisme guru, dan kolaborasi dengan pemangku kepentingan eksternal. Kemudian, untuk menerapkan strategi tersebut terdapat tantangan umum seperti resistensi terhadap perubahan dan keterbatasan anggaran yang dapat menjadi penghalang dalam mengimplementasikan inovasi. Dengan pendekatan yang komprehensif dan terencana, serta komitmen yang tinggi dari seluruh anggota organisasi, inovasi-inovasi ini diharapkan dapat memberikan peningkatan yang signifikan terhadap kualitas pendidikan dan hasil belajar siswa.

Kata Kunci: Inovasi, Manajemen Pendidikan, Kualitas Pembelajaran.

Introduction

Education has a very important role in the development of a nation. Good quality education will create high quality and competitive human resources. One of the main challenges in education is how to improve the quality of learning in order to produce outputs that are in line with the needs of the times and able to compete at the global level.

The rapid development of science and technology demands innovation in various aspects of life, including in education management. Effective and efficient education management can be the key to creating a conducive and productive learning environment. (Sitopu et al., 2024); (Guna et al., 2024); (Fawait et al., 2024).. Innovation in education management covers various aspects, such as curriculum development, the use of technology in the learning process, and improving teacher competence. (Li, 2021).

Innovation in education management plays a crucial role in creating an adaptive and responsive learning environment. The application of modern technology and new learning methods can help schools and educational institutions meet the diverse needs of students. For example, the use of digital learning applications and e-learning platforms allows students to learn more flexibly and personally, enriching their learning experience. (Huang et al., 2021). In addition, innovations in crafting curricula that are dynamic and relevant to the needs of today's industries can also prepare students with the skills needed in the global labour market, thereby increasing their competitiveness (Obidovna, 2023). (Obidovna, 2023).

Furthermore, innovations in education management can provide solutions to the challenges faced by the traditional education system. With a more efficient and data-driven managerial approach, schools can identify and address bottlenecks in the teaching and learning process more quickly and accurately. (Stecula & Wolniak, 2022).. For example, by utilising data-driven management, schools can conduct more accurate evaluations of teacher and student performance and develop more appropriate competency improvement programmes. Innovations in education management can also encourage active participation from all stakeholders, including teachers, students, parents and communities, to jointly improve the quality of education in a holistic and sustainable manner (Susilawati et al., 2015). (Susilawati et al., 2021)..

Although various efforts have been made to improve the quality of education, there are still many problems that hinder the achievement of optimal results. Some of these problems include the lack of adequate infrastructure, limited access to technology, and the low competence of educators in utilising technology for learning. In addition, ineffective education management often results in policies that are not targeted and are unable to support quality learning processes. (Muradov, 2024).

Therefore, innovations in education management are needed to overcome these problems and improve the quality of learning. These innovations must involve various stakeholders, including the government, schools, teachers, students and communities.

Synergistic co-operation between them is needed to create an adaptive, inclusive and quality education system. (Okunlaya et al., 2022)..

Innovation in education management is expected to provide the right solution to improve the quality of learning, including through the development of more interactive learning methods, the application of effective educational technology, and improving the quality and professionalism of educators. Thus, students can achieve optimal learning outcomes, have skills that are relevant to the demands of the times, and are ready to face global challenges. (Tapalova & Zhiyenbayeva, 2022).

Improving the quality of learning is a crucial aspect of advancing the education system. One way to achieve this is through the development of more interactive learning methods. Interactive learning methods encourage students' active participation in the learning process, allowing them to engage directly in discussions, problem solving and experiments. This approach not only improves students' understanding of the material, but also develops their critical thinking skills, creativity, and communication abilities.

Effective implementation of educational technology also plays an important role in improving the quality of learning. By utilising various digital tools and online learning platforms, educators can present materials in a more engaging and understandable way (Tubagus et al., 2023). Educational technology allows access to a wider range of learning resources, facilitates distance learning, and enables personalisation of the learning experience according to the needs and abilities of individual students. However, it is important to ensure that the use of these technologies is balanced and does not replace the human interaction that is essential in the learning process (Aslan & Shiong, 2023).

Improving the quality and professionalism of educators is a key factor in improving the overall quality of learning. This involves providing continuous training to teachers to update their knowledge on subject matter, current teaching methods and the use of educational technology (Nurdiana et al., 2023). In addition, encouraging teachers to conduct classroom action research and participate in professional learning communities can help them develop more effective teaching practices. It is also important to create an environment that supports teachers' professional growth, including clear reward systems and career development (Haddar et al., 2023).

The implementation of these three aspects - interactive learning methods, effective educational technology and improving the quality of the teaching workforce - must be holistic and sustainable. This requires commitment from various stakeholders, including the government, educational institutions, and the community. With a comprehensive approach that focuses on improving the quality of learning, we can hope to create a better education system that better prepares learners to face future challenges.

This research will explore various innovations in education management that can be applied to improve learning quality. The focus of this research is to identify the factors that contribute to the success of these innovations and how they can be effectively implemented in various educational contexts.

Research Methods

The study in this research uses the literature research method. The literature research method is an approach used to collect and analyse information from various written sources relevant to the research topic. The implementation of this method involves steps such as determining the research question, identifying and selecting appropriate literature, and synthesising information from these sources. (Abdussamad, 2022); (Wekke, 2020). Researchers should carefully review previous literature to identify patterns, gaps, and key findings in the field of interest. Literature research is not only useful for providing an in-depth understanding of a particular topic but can also help justify the need for further research and form a theoretical framework for future empirical studies. Thus, this method is crucial in the development of scientific knowledge and provides a solid foundation for more targeted and evidence-based research. (Hidayat, 2009); (Afiyanti, 2008).

Results and Discussion

Innovation in Education Management

Innovation in the context of education refers to the application of new ideas, practices and technologies that aim to improve the learning process and overall management of education. This can involve aspects ranging from more effective teaching methods, the use of technological aids such as e-learning platforms and learning apps, to more efficient and student-centred school management models. (Tapalova & Zhiyenbayeva, 2022).. The main goal of these innovations is to improve the quality of education, facilitate wider and more equitable access, and ensure students can develop competencies relevant to the demands of the modern world. Thus, innovation in education focuses not only on academic achievement, but also on the development of social, emotional and 21st century skills that are essential for students' long-term success. (Muradov, 2024).

Technological innovation in education involves the application of digital tools and platforms to enrich the learning experience. The most common examples are the use of educational software, mobile apps, and online learning management systems (LMS) such as Moodle or Google Classroom. These technologies enable more interactive learning through features such as videos, simulations, and educational games. (Syakhrani & Aslan, 2024); (Judijanto et al., 2024). In addition, with technologies such as artificial intelligence (AI) and data analytics, educators can gain deeper insights into student performance and tailor teaching approaches to each individual. Technological innovations also support distance learning and hybrid education, which are increasingly relevant in times of pandemics such as COVID-19 (Anthony et al., 2022). (Anthony et al., 2022).

Innovative learning methodologies introduce new approaches and techniques in the teaching process to increase effectiveness and student engagement. Some innovative methods include project-based learning (PBL), flipped classroom, and collaborative learning. In project-based learning, students engage in long-term tasks that require research and practical

application, which complement theoretical understanding. (Quan et al., 2021). The flipped classroom reverses the traditional model by giving students materials to study at home and using class time for in-depth discussions and problem-solving. Collaborative learning emphasises teamwork and collaboration between students to solve complex problems, develop social skills and critical thinking. (Suroso et al., 2021).

Innovation in curriculum includes the pursuit and development of curriculum structures that are more relevant to the needs of the times and the challenges of the future. Innovative curricula seek to incorporate 21st century skills such as critical thinking, creativity, digital literacy, and social-emotional skills. (Ramírez-Montoya et al., 2021).. In addition, the integration of STEM (Science, Technology, Engineering and Maths) and STEAM (plus the Arts) is becoming increasingly popular to prepare students for the ever-evolving technological challenges. Personalised curricula are also in focus, where learning content is tailored to students' individual interests, needs and learning styles, enabling more meaningful and effective learning experiences (Xue et al., 2021).

Traditional assessment methods, such as written exams, are sometimes considered incapable of capturing students' abilities holistically. Innovation in assessment involves developing more comprehensive and authentic evaluation techniques. For example, e-portfolios allow students to record, measure and reflect on their learning through various digital artefacts, such as projects, essays or video recordings. (Alam, 2021). Continuous formative assessment, such as the use of online quizzes and immediate feedback, helps teachers monitor students' progress in real-time and adjust their teaching strategies accordingly. Detailed grading rubrics also ensure transparency and consistency in the grading process, giving students a clear understanding of expectations and areas for improvement (González-Pérez & Ramírez-Montoya, 2022)..

In terms of school management innovation, the implementation of advanced school management and information systems has helped to improve operational efficiency. Systems such as education ERP (Enterprise Resource Planning) integrate various functions such as administration, finance, human resources and academics on a single platform. This allows for better management, accurate data tracking and faster decision-making. (Egielewa et al., 2022).. In addition, new approaches such as data-driven school management allow schools to analyse student and teacher performance and identify trends and issues to address proactively. Collaborative networks among schools can also develop best practices and further innovations through sharing experiences and resources. (Stein et al., 2021).

Learning environment innovation focuses on creating spaces that encourage student engagement and comfort. Physical environments such as flexible classrooms that can be rearranged according to the needs of the learning activity, or open spaces that allow for creative interaction, are becoming increasingly popular. In addition to physical spaces, digital environments also play an important role. The use of user-friendly learning platforms and easily accessible content allows students to learn anywhere and anytime. Learning environments that support inclusion are also a priority, with attention to accessibility for students with physical limitations or special needs. (Tamsah et al., 2021).

Through these types of innovations, education can be more adaptive, relevant and effective in preparing young people to face future challenges. In this context, collaboration between educators, institutions, government and industry is essential to encourage the continued development of innovation in education.

Relationship between Innovation and Learning Quality

Innovation in education has a close relationship with improving the quality of learning. The introduction of educational technologies, such as e-learning platforms, interactive learning apps and virtual classrooms, has paved the way for more effective and efficient teaching and learning processes. These technologies help overcome geographical and time constraints, providing wider educational opportunities. In addition, technology also enables personalised learning, where students can learn at their own pace and learning style. As a result, comprehension of the material increases and motivation to learn is maintained (Alenezi, 2023).

The diversity of teaching methods resulting from innovation also plays an important role in improving the quality of learning. The implementation of active learning approaches, such as project-based learning, flipped classroom and gamification, makes learning more interesting and relevant for students. These approaches encourage students to actively participate in learning, develop critical thinking, co-operation and problem-solving skills. Thus, students not only master the theory, but are also able to apply the knowledge in a real context. (Kaputa et al., 2022)..

In addition, innovations in learning evaluation and assessment provide a more comprehensive picture of student progress and needs. Authentic and formative assessment techniques allow for more dynamic, relevant and fair evaluations. With continuous assessment and constructive feedback, teachers can more accurately identify students' strengths and weaknesses. This enables the provision of timely support and appropriate interventions to improve student learning outcomes. (Syvyi et al., 2022)..

Innovations in school management and organisation also improve the quality of learning. An integrated information management system helps optimise various aspects of school operations, from administration to academic performance. Well-organised data enables in-depth analysis of school performance and student progress. (Bokayev et al., 2021).. By making data-driven decisions, schools can design appropriate strategies to improve the quality of education and provide a conducive learning environment. Collaboration between various stakeholders also fosters the exchange of knowledge and best practices, allowing innovations to flourish and contribute to higher quality learning (Alzoubi & Aziz, 2021). (Alzoubi & Aziz, 2021)..

However, to maximise the positive impact of innovation on learning quality, there are several challenges that need to be overcome. One of the main challenges is the gap in access to technology in different regions, especially in remote or less developed areas. Uneven technological infrastructure can make it difficult for educational innovations to be implemented across the board. Therefore, it is important to have support from the

government and various related parties in providing adequate access to technology as well as ensuring teacher training related to the use of education technology. (Hoerudin et al., 2023).

Another challenge is the readiness and competence of educators in adopting and implementing innovations. Transforming education through innovation requires a paradigm shift and continuous adaptation from educators. Ongoing training and professional development programmes are essential to ensure teachers are ready and able to make effective use of new technologies and learning methods. In addition, the success of innovation also depends on policy support that encourages educational innovation and a school culture that is open to change and renewal. (Lunenburg & Ornstein, 2021)..

The importance of collaboration between various stakeholders in and around education should also not be overlooked. Non-profit organisations, technology companies, communities and governments need to work together to create an ecosystem that supports educational innovation. This collaboration includes providing resources, funding, training, and establishing networks and learning communities. By working together, all parties can share knowledge, experiences and best solutions to overcome challenges and improve the overall quality of learning. (Asitah et al., 2023)..

Thus, innovation has a very significant role in improving the quality of learning. Through technology, diverse teaching methods, authentic evaluation and integrated school management, innovation helps create a more effective, efficient and engaging learning environment. However, challenges such as gaps in technology access and educator readiness must be addressed with appropriate strategies. Collaboration between all stakeholders is also indispensable to support and encourage innovation in education. Thus, innovation is not only a way to improve the quality of learning, but also to create an inclusive and sustainable education ecosystem.

Influence of Innovation on Learning Quality

Innovation in education has brought significant changes to the quality of learning at various levels of education. One of the main influences of innovation is the application of technology in the teaching and learning process. The use of digital devices, such as computers, tablets and the internet, allows students to access wider and more varied information and participate in interactive learning. (Toquero, 2021). With technology, teachers can deliver material in a more engaging way, including through videos, simulations and game-based learning applications. This not only improves students' understanding but also makes the learning process more enjoyable. (Camilleri, 2021).

In addition, innovations in teaching methods also contribute to improving the quality of learning. The implementation of more student-centred learning methods, such as flipped classroom, blended learning and project-based learning, allows students to be more active in the learning process. They are not only recipients of information, but also engage in exploration, discussion and collaboration. These methods encourage the development of critical skills such as critical thinking, problem-solving, and teamwork, which are essential for facing challenges in the real world. (Jnr & Noel, 2021).

Innovations in learning evaluation also play an important role in improving the quality of education. Authentic evaluation approaches, such as continuous assessment, portfolios and project-based assessment, provide a more accurate picture of students' development and abilities. These approaches allow teachers to provide more constructive and specific feedback, which can help students understand their strengths and areas for improvement. In addition, diverse evaluations reduce the pressure of conventional examinations that often only measure students' cognitive abilities, without considering other aspects such as creativity and co-operation. (Saxena et al., 2021).

Finally, innovations in school management also have a positive impact on the quality of learning. The use of Learning Management Systems (LMS) allows school administration to be more efficient and organised. With an LMS, data regarding attendance, assessment and student progress reports can be accessed in real-time by teachers, students and parents. This improves transparency and communication between all parties involved in education. In addition, the LMS also supports the implementation of online teacher training programmes, which facilitates the improvement of educators' competence and professionalism.

Factors supporting and inhibiting innovation in education management

The first factor that supports innovation in education management is visionary leadership. Leaders with a long-term vision and a commitment to continuous improvement play a key role in driving innovation. They provide support in the form of policies, resources and an organisational climate conducive to renewal. (Wang et al., 2021). In addition, visionary leadership is also able to inspire and motivate teaching staff to innovate and continue to adapt to changing times. Thus, strong leadership is an important basis in driving the wheels of innovation in the education environment (Elumalai et al., 2021). (Elumalai et al., 2021)..

Technology is also a significant enabler of education management innovation. Access to digital devices and online platforms facilitates the implementation of learning management systems (LMS), which help in the organisation, administration and collaboration between students, teachers and parents. Technology enables operational efficiency by automating administrative processes, monitoring student progress in real-time, and providing accurate data for decision-making. Technology also supports flexibility in learning, such as distance learning and hybrid learning, which addresses the needs of education in the digital age. (Alzahrani & Seth, 2021).

However, there are also various inhibiting factors that need to be overcome to ensure the success of innovation in education management. One of these is resistance to change. Many educators and school staff are used to traditional ways and feel comfortable with their routines. Lack of understanding and skills in using new technologies can also be a barrier. (Jamoliddinovich, 2022). Therefore, continuous training and mentoring are needed to improve educators' capabilities and confidence in adopting innovations. In addition, teachers and staff need to be actively involved in the change process to reduce resistance and increase ownership of the innovation (Toimah et al., 2021). (Toimah et al., 2021).

Budget constraints can also be a challenge in implementing innovations in education management. Many innovations, especially those based on technology, require large initial investments in infrastructure, hardware and software. Schools often face funding constraints that hinder their ability to provide such facilities. It is therefore important for policymakers and governments to provide adequate and sustainable financial support for schools, both through adequate education budgets and through partnership programmes with the private sector and donor agencies. (Hashim et al., 2022).. With the right assistance and collaboration, these financial challenges can be minimised, allowing innovations in education management to run smoothly and bring maximum benefits.

In addition to the above factors, collaboration and partnerships play an important role in supporting innovation in education management. Collaboration between schools, universities, industry and local communities can generate strong synergies in developing and implementing new innovations. For example, partnership programmes with technology companies can provide additional resources and training for teachers to utilise educational technology effectively. In addition, this collaboration also opens up opportunities for students to engage in real-world projects that are relevant to the industrial world, so that they are better prepared to face future challenges (Ralston, 2021).

Qualified human resources are also a crucial aspect in supporting innovation. Innovation will not succeed without the support of competent teachers and staff who are eager to learn and develop. Therefore, it is important for educational institutions to continuously develop the capabilities of educators through continuous training, workshops and professional development programmes. With skilled and adaptive human resources, schools will be better able to implement innovative ideas that can improve the quality of education. (Ying et al., 2022)..

However, closed organisational cultures and rigid bureaucracies pose significant challenges that can stifle innovation. A culture that is overly hierarchical and not open to new ideas from all levels can extinguish the spirit of innovation. Overcoming this requires a shift towards a more inclusive and collaborative culture, where every member of the organisation feels valued and motivated to contribute with their creative ideas. (Saxena et al., 2021).. Simplified bureaucratic processes can also accelerate the implementation of innovations without dragging on complicated procedures (Bawono, 2021). (Bawono, 2021).

Innovation in education management is thus key to improving the effectiveness and quality of education in the modern era. Factors such as visionary leadership, technology utilisation, collaboration and human resource development play an important role in driving innovation. However, challenges such as resistance to change, budget constraints, closed organisational cultures and rigid bureaucracy must be overcome to ensure the success of these innovations. With the right strategy and full support from all parties involved, innovations in education management can be implemented effectively and provide significant benefits to the entire education ecosystem.

Conclusion

Innovation in education management plays a vital role in improving the quality of learning. It requires strong and visionary leadership that is able to steer educational institutions towards positive change. The utilisation of modern technologies such as e-learning, learning management systems (LMS), and other digital tools, can increase student engagement and make the learning process more effective and efficient. Therefore, investment in technology and development of digital infrastructure is one of the important steps to implement innovation in education.

In addition, collaboration between various stakeholders such as schools, universities, industries and local communities is necessary to create an ecosystem that supports innovation. Partnership programmes can provide access to additional resources and wider learning opportunities for students. Professional development for teachers and staff is also crucial, as the quality of education is largely determined by the quality of the human resources who manage and teach in it. By having skilled and innovative educators, schools can continuously implement new methods and strategies to improve student learning outcomes.

However, challenges such as resistance to change, rigid bureaucracy and budget constraints remain and must be addressed with a clear strategy and full commitment from all members of the organisation. An inclusive and collaborative organisational culture will go a long way in overcoming these barriers and allowing new ideas to flourish. Streamlining bureaucratic processes is also needed to accelerate the implementation of innovations. Thus, through a comprehensive and synergistic approach, innovation in education management can be realised and have a significant positive impact on the quality of learning.

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