Curriculum Development Management: Challenges and Opportunities in the Era of Global Education

Suwarni 1
1 Universitas Dehasen Bengkulu, Indonesia

Corresponding Author: Suwarni, E-mail: suwarni.h13@gmail.com

Article Information: Received October 10, 2023 Revised October 19, 2023 Accepted December 14, 2023

ABSTRACT

Education has now spread globally along with the development of technology. The impact of this education has an influence on curriculum management in higher education. This is a major factor for the world of education so that it can develop the curriculum well and wisely. It also includes constant evolution in technology, social change, and the need for new skills, all of which influence curriculum development. The aim of this research is to analyze the challenges faced by curriculum development management, considering globalization factors, technology and variations in student needs. This research method involves in-depth literature study and analysis of empirical data from a number of educational institutions. The research results show that curriculum development management requires a more adaptive and inclusive approach, considering global skills needs, technology integration, and active participation of all education stakeholders. Opportunities were identified in the ability to increase global access to education through technology, integration of curricula relevant to future needs, and cross-border collaboration in developing holistic curricula. In conclusion, management of curriculum development in the era of global education requires continuous adaptation, based on in-depth analysis of student needs and changes in the global context. The challenge faced is ensuring relevance, agility and inclusivity in curriculum development, while taking advantage of technological opportunities and cross-border collaboration. The limitation of this research is that curriculum development management is only intended for the world of education. We hope that the research conducted by researchers can become a reference and consideration for researchers who wish to conduct research related to curriculum management in education.

Keywords: Management, Curriculum, Challenges, Opportunities, Global Education

Published by: Universitas Islam Negeri Mahmud Yunus Batusangkar Press


This is an open access article under the CC BY SA license https://creativecommons.org/licenses/by-sa/4.0/
INTRODUCTION

Education and technology are two entities that are intertwined and influence each other significantly (Arantes, 2023). Technological developments have fundamentally changed the educational paradigm, affecting how students learn, teaching is conducted and access to knowledge. Technology opens the door to wider access to educational resources. The internet, for example, allows students to access information from all over the world, summarizing knowledge that was previously limited to textbooks or local sources. This opens up opportunities for a more independent and personalized approach to learning, where students can learn according to their own pace and learning style. Technological developments also enable more effective collaborative learning (Šašinka et al., 2018). Students can engage in collaborative projects online, both within the classroom and across geographical boundaries (Agarwal & Linh, 2021). Online collaboration tools, such as shared learning platforms (Surani et al., 2020), video conferencing and information sharing apps, allow students to interact and learn from people with different backgrounds (Bailey et al., 2022). Despite its many benefits, technology integration in education also faces challenges (Aju & Mack, 2022). Not all students have equal access to technology or a stable internet connection. This creates a digital divide among students, which can exacerbate the already existing education gap (Fachrurazi et al., 2023). In addition, the need for educators who are skilled in utilizing technology in teaching is also an important factor. Proper training and ongoing support are needed for educators to effectively use technology in the learning process.

LITERATURE REVIEW

Curriculum management

Management is the process of planning, organizing, directing, and controlling resources (whether human, financial, material, or information) to achieve predetermined goals. It involves decision-making, resource allocation, process organization, and monitoring to achieve desired results. While curriculum refers to a lesson plan or teaching structure that includes what material to teach, how to teach, and how students will be measured for their understanding and achievement (Lukita et al., 2020). The curriculum is a guide or framework used by educators to design student learning experiences. Curriculum Development Management is a complex and strategic process of designing, implementing and evaluating an educational curriculum (Yin et al., 2014). It involves a systematic series of steps to ensure that the curriculum can meet the needs of students, society, and adapt to the development of education and the demands of the times. Management and curriculum are closely related in the context of education (Agarwal & Linh, 2021). Effective management is needed to manage the curriculum development process, allocate the necessary resources, and ensure that learning plans can be implemented efficiently and effectively to achieve the set educational goals.

There are several stages in curriculum development management (Lau & Al-Hawamdeh, 2002). First, needs analysis. The first step is to understand educational needs, identify challenges and design clear learning objectives (Alamri et al., 2020).
This involves mapping the skills and knowledge required by students according to the development of society and technology. Second is curriculum design. This process involves establishing a curriculum structure, selecting learning materials, developing teaching strategies and assessments that are in line with educational objectives. The inclusion of cultural, social and global values is important in this design. Third, implementation. Once the curriculum is designed, the next step is to implement it in educational practice. Educators play a crucial role in implementing this curriculum in daily learning. Fourth, evaluation and revision. The evaluation process is concerned with collecting data to assess the effectiveness of the curriculum. It involves measuring student learning outcomes, student responses and feedback from educators. Evaluation results are used to revise the curriculum to improve its effectiveness and relevance.

In addition, there are also principles in curriculum development management. First, stakeholder involvement. In designing the curriculum, it is important to involve various parties such as educators, students, parents and other stakeholders. This ensures that the curriculum can accommodate diverse needs. Second, relevance to future needs. The curriculum should be relevant to the future needs of students. This includes the integration of skills relevant to the world of work, technology and social developments. Third, openness to innovation. Curriculum Development Management should be responsive to new developments in education and technology (Dymon, 1996). Flexibility in the curriculum allows for change and innovation. Fourth, consistency and integration. The curriculum must be consistent with the vision, mission and educational goals of an institution. Integration between subjects, teaching methods, and evaluation is essential. Fifth, continuous evaluation. Periodic evaluation is essential to assess the effectiveness of the curriculum. Continuous evaluation allows for necessary adjustments and improvements. Curriculum Development Management is not a static process, but rather dynamic and ongoing. In an ever-changing educational environment, curriculum development management must be responsive and adaptive to changes in society, technology and student learning demands.

**Challenges and opportunities in curriculum development**

Challenges in curriculum development. First, rapid changes in the digital era. Technology continues to evolve rapidly. The main challenge is to ensure that the curriculum keeps up with technological developments so that students are prepared for an increasingly connected and digitalized world (Edwards, 2007). Second is the skills gap. Another challenge is the gap between the skills taught and the skills needed in the real world. The curriculum must be able to prepare students with skills that are relevant and in line with the needs of the job market. Third, student diversity. The diverse needs and backgrounds of students are a challenge. Curriculum development that can accommodate the needs of students from different cultures, backgrounds and ability levels is important. Fourth, proper evaluation. Evaluating the effectiveness of the curriculum is a challenge (Zinser, 2012). Finding a comprehensive evaluation method to measure student achievement, responses to the curriculum, and the relevance of the curriculum to educational goals is important.
In addition to the challenges that arise in developing the curriculum, of course there are also great opportunities that can be obtained for the world of education in the current era. Opportunities in curriculum development can be in the form of technology as a learning tool (Heitmann, 2005). Technology provides great opportunities in curriculum development. By utilizing digital tools, the curriculum can be presented in a more interesting and interactive way. Secondly project-based learning. The curriculum can offer opportunities to introduce project-based learning, which allows students to learn while working on real projects related to everyday life. Third, global collaboration. Globalization opens the door for collaboration between educational institutions from different countries. This provides an opportunity to integrate global perspectives into the curriculum, enriching students’ learning experiences. Fourth, 21st century skills. The curriculum can focus on developing 21st century skills such as critical thinking, creativity, communication skills and collaboration, which are important aspects in preparing students for the future. In facing these challenges and capitalizing on these opportunities, curriculum development requires an approach that is flexible, responsive to change, and continuously dynamic (Boranbayev et al., 2021). Adapting the curriculum to the needs of students and the needs of the future is key in creating relevant and effective education in a changing era. While the development of curriculum management in a globalized era has a lot of potential, some challenges need to be overcome (Guerin, 2009). One of them is the digital divide that affects students' technology access and skills. In addition, creating a curriculum that embraces diversity without compromising local needs is also a challenge (Alammary et al., 2014). In response to global dynamics, curriculum management in the global era needs to continue to evolve to ensure that education can prepare students to become open-minded, adaptive and competitive global citizens in an increasingly connected global context.

**Education in the Global Era**

Global education is an approach to education that transcends geographical, cultural and political boundaries (Scoffham, 2018). It is an attempt to integrate global values, cross-cultural understanding, and perspectives that support a broader understanding of the challenges and opportunities in a global context. The goal of global education is to prepare young people to become global citizens who are knowledgeable, open-minded and able to contribute to solving global problems (Gibson et al., 2008). It helps students to develop a deeper understanding of the interconnectivity of the world and their responsibilities as global citizens in addressing global challenges and opportunities. The characteristics of global education are firstly openness and inclusiveness. Global education emphasizes inclusion, taking into account the diversity of cultures, languages and values around the world (Vulliamy & Webb, 1993). It promotes diversity and appreciation of differences as a source of wealth. Secondly a global perspective in the curriculum. Global education incorporates a global dimension in its curriculum. This includes studying global issues such as peace, sustainability, human rights, as well as understanding different cultural perspectives. Third, it focuses
on developing skills relevant to the global era, such as critical thinking, creativity, cross-cultural communication skills, and the ability to adapt and work in diverse environments. Global education uses technology to facilitate access to global educational resources (Hicks, 2003), connect students and educators from around the world, and enable collaborative learning across borders (Marshall, 2007). Global education teaches students to understand and address global challenges such as climate change, poverty, inequality, conflict and other global issues.

There are several previous research opinions regarding curriculum management. The first research is according to Ansori, (2021), with the research title Madrasah Curriculum Development in Islamic Boarding Schools. The results of his research stated that the first curriculum at Madrasah Aliyah Al-Hikmah Sumobito was an integrity curriculum, meaning a combination of K-13 with the Islamic boarding school curriculum. Both forms of curriculum development at MA Al-Hikmah Sumobito Madrasah Aliyah Al-Hikmah Sumobito have implemented K-13 maximally, implemented credits, met Content Standards and SKL. The third impact of curriculum development is that students have scientific integrity, science and technology and IMTAQ. The second research is according to Ramadhan et al., (2021), with the research title Islamic Education Curriculum Development in the New Normal Era. The results of his research state that there are two important component elements in the implementation of learning process activities; namely, students and educators must be given training related to technological media to know the direction of learning in order to avoid mistakes that will become problems. The third research according to Hasbi & Mahmudah, (2020), with the research title Development Of An Enterprise Based School Curriculum In Sma Negeri 1 Temon. The results of his research stated that first lanning for entrepreneuruship-based curriculum begins by determining the curriculum structure that will become planning, after the formation of the structure, the concept of structure which consists of the background, objectives, scope, competency standards, and basic competencies needed is considered. The implementation of the entrepreneurship-based curriculum must regulate the stages in each class of students by the curriculum documents that have been prepared, each learning process is always integrated with aspects of entrepreneurship and some that produce products as learning outcomes. (3) Evaluation is carried out based on school quality objectives and taking into account the dimensions of the program and implementation.

Research conducted by previous researchers is different from the research that researchers do. Meanwhile, the research that the researchers conducted was entitled Curriculum Development Management: Challenges and Opportunities in the Era of Global Education. The results showed that curriculum development management requires a more adaptive and inclusive approach, considering global skills needs, technology integration, and active participation of all educational stakeholders. Opportunities were identified in the ability to increase access to global education through technology, curriculum integration relevant to future needs, and cross-border collaboration in developing a holistic curriculum.
RESEARCH METHODOLOGY

Research methods researchers use literature studies and data analysis (Davies et al., 2017). The literature study method is a research approach that focuses on analyzing existing written works (literature) related to a particular topic or research question (Banihashem et al., 2018). The literature study research method involves analyzing various sources of information, such as journal articles, books, reports, and official documents, which are relevant to the research topic. This approach allows researchers to collect existing information and analyze it to develop a comprehensive understanding of the research subject. Some of the advantages of the literature study method are as follows: first, broadening understanding. Literature study allows researchers to broaden their understanding of the research subject by utilizing existing findings in related literature. This allows them to build a strong and in-depth conceptual framework. Second, it identifies knowledge gaps. Through literature review, researchers can identify knowledge gaps in a particular field and formulate relevant research questions to fill these gaps. Third, time efficiency. The literature study method can be more efficient in terms of time and resources because researchers do not need to collect primary data directly. However, the literature study research method also has some weaknesses, namely the limited control of researchers over the quality and validity of the data contained in the literature, as well as the possibility of writing bias from the sources used.

The research method on Curriculum Development Management: Challenges and Opportunities in the Era of Global Education was conducted with several systematic and comprehensive research steps (Gregersen-Hermans, 2021). The first step in this research is to conduct a comprehensive literature study on curriculum development management, challenges and opportunities in the era of global education. This will involve searching and analyzing articles, books, journals and official documents related to these concepts. Through the literature study, the researcher can gain a solid understanding of the subject and form the basis for formulating a strong conceptual framework. Furthermore, this research method may involve interviews with experts, practitioners and stakeholders related to curriculum development management. Interviews can provide in-depth insights into the views and first-hand experiences of facing challenges and capitalizing on opportunities in curriculum development in the era of global education (Olds, 2007). Interviews can be conducted in person or through online interviews, depending on respondents’ availability and preferences. The research can also utilize a case study approach to gather in-depth information from specific educational institutions or countries that have implemented curriculum development management well. Case studies can provide concrete examples of successful efforts as well as obstacles faced in managing curriculum amidst the dynamics of global education. Once the data is collected, researchers can use various data analysis methods such as statistical analysis, qualitative analysis, or modeling techniques to test hypotheses, compare findings, and draw relevant conclusions. In addition, researchers
can also utilize the triangulation approach, which combines data from different sources or different research methods to ensure the validity and reliability of the research results. By using comprehensive and integrated research methods, it is hoped that this study can make a significant contribution to understanding the dynamics of curriculum development management, challenges and opportunities in the global education era, as well as provide relevant recommendations for stakeholders in curriculum development in the future.

RESULT AND DISCUSSION

Curriculum development management in the global era is the process of planning, organizing, managing, and evaluating the educational curriculum to meet the demands and needs of globally changing education. It involves a series of strategic steps to develop, implement and evaluate a curriculum that is relevant and responsive to global developments in education. Education in the current global era faces various challenges that require educational policy makers to continuously update and develop the curriculum to be relevant to the needs of society and global competition. Curriculum development management is one of the important aspects in ensuring that the curriculum can meet the demands of the times and the needs of today's global education. This discussion will outline the challenges and opportunities in curriculum development management in the era of global education, as well as strategies that can be implemented to deal with these dynamics. The purpose of curriculum development management is to provide a high-quality curriculum to improve educational standards. This includes curriculum development that meets national and international standards. In addition, it is also to provide guidelines for teachers in planning, implementing, and evaluating learning, so that the teaching process becomes more directed and effective.

Some key aspects of the development of curriculum management in the global era are firstly the inclusive and multicultural approach. Curriculum management today tends to be more inclusive, considering the diversity of students' cultures, languages and social contexts. The curriculum is designed to accommodate global values without compromising local identity. It encourages learning that strengthens understanding and appreciation of cultural diversity and different perspectives. Secondly, it focuses on global skills. The curriculum is undergoing a shift to place more emphasis on globally relevant skills. In addition to academic knowledge, education today prioritizes the development of 21st century skills such as critical thinking, teamwork, digital literacy and adaptability to change. Third, utilizing technology in learning. Technology is at the core of curriculum development. Integration of technology in learning is a priority, enabling access to global educational resources, cross-border collaboration, and facilitating independent, interactive and adaptive learning. Fourth, dynamic and flexible curriculum. Curriculum management in the global era tends to be more dynamic, adapting to rapid changes. Curricula are designed flexibly, allowing adaptation to new developments in knowledge, technology and labor market demands. Fifth, cross-border collaboration. Cooperation between educational institutions from different countries is
becoming more important in developing an inclusive and globally relevant curriculum. The exchange of information, ideas and best practices through cross-border collaboration enriches the curriculum with multiple perspectives. Sixth, continuous evaluation. Curriculum evaluation in the global era focuses not only on academic outcomes but also on students' ability to compete globally, their readiness to face future challenges and adaptability to a rapidly changing environment.

<table>
<thead>
<tr>
<th>NO</th>
<th>Aspects</th>
<th>Opportunities</th>
<th>Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Globalization</td>
<td>Greater access to global education resources and cross-border collaboration.</td>
<td>Adjustment of the curriculum to cultural variations, technology and fast-changing global needs.</td>
</tr>
<tr>
<td>2</td>
<td>Technology</td>
<td>Use of technology for personalized learning, online learning platforms, and rich digital resources.</td>
<td>Integration of technology in the curriculum requires adequate resources, training and access.</td>
</tr>
<tr>
<td>3</td>
<td>Competency-Based Curriculum</td>
<td>Focus on practical skills development and adaptation to industry needs.</td>
<td>Understanding and implementation that requires restructuring of curriculum and learning.</td>
</tr>
<tr>
<td>4</td>
<td>Stakeholder Engagement</td>
<td>Opportunities for collaboration between schools, government, industry and local communities to develop relevant curricula.</td>
<td>Challenges in engaging diverse parties with different interests.</td>
</tr>
<tr>
<td>5</td>
<td>Evaluation and Assessment</td>
<td>Development of more holistic and inclusive assessment methods to measure student progress in various aspects.</td>
<td>Find a comprehensive evaluation method to measure the achievement of broader competencies.</td>
</tr>
<tr>
<td>6</td>
<td>Limited Resources</td>
<td>Opportunities to seek additional resources through partnerships, grants or other innovative approaches.</td>
<td>Lack of funding, infrastructure and qualified educators.</td>
</tr>
</tbody>
</table>

The challenges in curriculum development management in the global era can be overcome with some appropriate approaches and strategies. Some of the ways to overcome these challenges include first involving all stakeholders, including teachers, students, parents, industry, government and local communities in the curriculum development process. By ensuring their involvement, the curriculum can be more relevant and responsive to diverse needs. Secondly, utilizing technology wisely to support the learning and teaching process. This involves training teachers in the use of technology, providing wide access to digital resources and ensuring adequate infrastructure. Thirdly designing curriculum that focuses on developing 21st century skills such as critical thinking, collaboration, creativity and digital literacy. This enables
students to be ready for the changing demands of the world of work. Fourthly develop evaluation methods that cover multiple aspects, not only academic knowledge but also social, emotional and creative skills. This allows for a more comprehensive understanding of student progress. Fifthly, expanding access to global education resources, such as international education networks, student exchanges and collaboration with educational institutions from different countries. This gives students and teachers a broader perspective. Sixth provide ongoing training to teachers to improve their teaching skills, introduce new learning methods and increase understanding of students' needs in the global era. Seventh encourages innovative thinking in curriculum development, including experimentation with new approaches, use of resources not previously thought of, and adaptation to the latest developments in education. Lastly, it builds partnerships between educational institutions, industry, government and local communities to support the development of a more relevant curriculum, ensure better use of resources and provide wider opportunities for students.

Good curriculum development management in the era of global education can be recognized by several characteristics: first, it is flexible and responsive to change. Management that is able to adapt the curriculum to global changes, technology and student needs quickly and efficiently. Second, based on collaboration and stakeholder involvement. Showing participation from various parties such as teachers, students, parents, government, industry, and local communities in the curriculum development process. Third is oriented towards 21st Century Skills. Focus on developing 21st century skills such as critical thinking, collaboration, communication, creativity, and technology skills that are essential in the modern world of work. Fourth, appropriate technology integration. Effectively use technology as a learning tool that can enhance students' learning experience and expand access to global educational resources. Fifth evidence-based and regular evaluation. Using data and evidence to continuously improve the curriculum. Periodic evaluation processes help in adjusting the curriculum to make it more effective in line with student needs and educational developments. Sixth attention to cultural diversity and engagement. Recognizing cultural diversity and the needs of students from different backgrounds and integrating cultural elements in the curriculum to create an inclusive learning environment. Seventh innovative and creative thinking. Encourage innovation and creativity in learning approaches, curriculum content development and in responding to challenges. Eighth focus on continuous learning. Prioritizing lifelong learning by providing opportunities for professional development of teachers, students and other stakeholders. Ninth engagement in global education networks. Taking advantage of global education networks for idea exchange, collaboration and additional resources. Lastly, openness to change and innovation. Having the ability to embrace change and adopt new innovations in the curriculum development process. These traits help build curriculum development management that is adaptive and responsive to the current dynamics of global education.
CONCLUSION

Based on the results and discussion above, it can be concluded that curriculum development management in the global era is the process of planning, organizing, managing, and evaluating the education curriculum to meet the demands and needs of globally changing education. It involves a series of strategic steps to develop, implement and evaluate a curriculum that is relevant and responsive to global developments in education. To deal with the complexities of education in the era of globalization, curriculum development management must utilize an adaptive, inclusive and future-oriented approach. The challenges of designing a relevant and inclusive curriculum must be balanced with the utilization of technology, cross-border collaboration, and adjustments to the needs of diverse students. So curriculum development management in the era of global education requires the involvement of all stakeholders, creativity in curriculum customization, and awareness of constant change. By taking advantage of technological opportunities and cross-border collaboration, education can be a means to produce individuals who are ready to face challenges and take advantage of opportunities in this era of globalization. The results also suggest that the opportunities for developing curriculum management in education are enormous. The use of technology can be a gateway to wider access to quality education, overcoming geographical and financial barriers. Cross-border collaboration also emerges as an opportunity to enrich the curriculum with a global perspective, preparing students to become competitive global citizens.

REFERENCES


Arantes, J. (2023). Educational data brokers: Using the walkthrough method to identify


Curriculum Development Management: Challenges and Opportunities in the Era of Global Education


