

Embedding Local Wisdom in Education: A Systematic Review of Its Role in the Independent Curriculum

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Abstract. This article explores the integration of local wisdom into the Independent Curriculum as a strategy to align education with future challenges and redefine its objectives. Employing a systematic literature review, the study analyzes the role of local wisdom in enriching teaching and learning practices within the framework of the Independent Curriculum. The findings reveal that incorporating indigenous knowledge not only helps bridge the moral disparities emerging in modern society but also ignites students' curiosity about their cultural roots. This engagement fosters a deep appreciation for local culture while shaping a uniquely competitive and innovative Indonesian society. By embedding local wisdom principles into the curriculum, education can nurture student character traits such as diligence, critical thinking, creativity, competitiveness, and adaptability. This approach not only preserves cultural heritage but also strengthens the communal values embedded in local wisdom, promoting a collective sense of identity. As a result, the learning process becomes a transformative journey that equips students with cultural resilience, expansive knowledge, and the competitive skills required to thrive in a globalized world. This integration is a powerful means to produce individuals who embody cultural authenticity while meeting the demands of modernity.

Keywords: local wisdom, independent curriculum, learning, systematic literature review.

1 Introduction

The era of globalization and technological growth has led to rapid changes in learning. Students are increasingly familiar with technology in learning rather than engaging in traditional learning approaches [1]. The way students think in processing information is also constantly evolving. Science and technology have established themselves as major forces that will shape the future [2]. The route to a widespread information revolution may be difficult to forge in developing nations. Provide students the chance to study enough to acquire the cutting-edge expertise in design that can be used to compete in today's global market [3], [4].

The national education system must continually implement changes in a planned, directed, and sustainable manner to guarantee educational parity, advancements in educational quality, and the efficiency and effectiveness of educational administration. The program's goal is to

prepare students to meet problems in a way that's appropriate for their own circumstances as well as the needs of the community, the country, and the world at large [5]. Enhancing the curriculum is a crucial measure to attain advancement in the field of Education, which is persistently sought for to enhance the education system.

The inclusion of the autonomous learning program in Indonesia's school curriculum system in 2022 is a significant measure taken to enhance the quality of education and address the issues posed by the current era and technology advancements. The notion of an autonomous learning curriculum establishes a basis for education that is highly adaptable, focused on the cultivation of skills, and empowers students to actively engage in their learning journey [6]. The Circular Letter Number 1 of 2020 outlines the policy of independent learning for student graduation. This policy, known as "Freedom of Learning," grants educational institutions the freedom to promote innovation, creative thinking, and the use of technology in the teaching and learning process. By doing so, it aims to create a more interactive, dynamic, and engaging learning environment for students [7].

The concept of "Freedom of Learning" encompasses significant principles that can facilitate an individual in attaining more efficient and enduring learning [8]. This implies that in order to uphold this concept, it is necessary to have teachers that create a learning atmosphere that fosters and promotes student autonomy. A "free to learn" teacher is someone who is committed to ongoing learning and growth. They embrace an inclusive and responsive approach to meet the unique needs of each student. This creates an environment where students feel supported and valued as active participants in the learning process [9].

The core principle of the independent curriculum is to prioritize the autonomy of individuals in exploring their interests, talents, and potentials, which are crucial for navigating the diverse obstacles of social existence. The application of this concept necessitates the attainment of specific and quantifiable learning outcomes following a sequence of educational activities. These outcomes encompass the acquisition of competencies, skills, knowledge, attitudes, and values that participants are anticipated to proficiently grasp upon the completion of their learning journey [10]. Implementing the Independent Curriculum is a step towards enhancing 21st century skills, which emphasize independent learning by fostering critical thinking, collaboration, communication, and problem-solving abilities. This approach aims to create a dynamic learning environment and equip students with the necessary skills to meet the challenges of a constantly evolving job market [9], [11].

A reliable measure of the effective execution of self-directed learning not only emphasizes the attainment of knowledge, but also incorporates the cultural values that define the Indonesian nation into the learning process. When studying culture, it is essential to incorporate components of local wisdom into all aspects of learning. This ensures that the learning process not only imparts knowledge but also enhances the cultural identity and local wisdom of students [12], [13]. Local wisdom is a fundamental component of culture, covering all knowledge, traditions, and teachings that are passed down from one generation to another within a society. The learning approach of incorporating local wisdom involves integrating local values, culture, traditions, and knowledge into the educational process. The objective is to enhance the relevance of learning to the local cultural context and foster the development of cultural and social identity [12], [13].

The implementation of learning based on local wisdom necessitates the comprehension, awareness, cooperation, and participation of all societal components in order to mitigate adverse consequences such as the erosion of knowledge and appreciation of cultural diversity among the younger generation in the age of globalization. By incorporating indigenous knowledge into

the educational process, students can gain a deeper understanding and appreciation for local cultural values and customs in a meaningful and applicable way [14].

The introduction of an autonomous curriculum that incorporates indigenous knowledge was implemented as a means to revolutionize education, with the objective of granting autonomy in developing a learning process that is better aligned with the requirements and circumstances of students [7], [15]. Moreover, the learning process is designed to be quantifiable in terms of quantity, quality, and duration in order to prevent cultural decline caused by the influence of globalization on students who are required to possess understanding and awareness of their cultural and environmental circumstances [16], [17].

It is well recognized that the issues posed by globalization necessitate endeavors to preserve local knowledge values by incorporating them into science and technology, which will in turn enhance the quality of education through the learning process [18]. The education quality in question pertains to the acquisition of abilities that are directly applicable to students' everyday life, including social skills, critical thinking skills, and problem-solving skills. There is a lack of research that focuses on the use of local cultural wealth as a learning resource in the independent curriculum. Despite evidence showing that integrating local wisdom into learning can enhance effectiveness, this area remains understudied. Furthermore, the study conducted by Cahya and Syafrizal demonstrates that incorporating local wisdom into the learning process is highly beneficial in introducing pupils to social values and local cultural practices amidst rapid societal changes [19]. Therefore, it is crucial to uphold and enhance the significance of indigenous knowledge during the implementation of the independent curriculum.

The goal of this study is to investigate the incorporation of local wisdom into the independent curriculum. This research is significant as it aims to demonstrate the significance of local wisdom as a valuable resource for learning in the educational context. This project aims to gather empirical evidence on the effective integration of local wisdom into the curriculum and learning process. Moreover, this study provides novel perspectives and advancements in the field of education by investigating and delving into the significance of incorporating indigenous knowledge in the learning process within the framework of the self-directed learning curriculum, an aspect that has not been previously explored in research. Therefore, this research has significant promise for enhancing the caliber of education, reinforcing cultural heritage, and fostering the growth of student skills in a constantly evolving global environment.

2 Methods

This article employs the strategy of a systematic literature review. Systematic literature reviews are a kind of study that focus on finding, assessing, evaluating, and drawing conclusions based on the overall outcomes of research that is relevant to the research issue so that they may be utilized as a basis for solving preexisting problems [20]. Secondary information was utilized for this analysis. Secondary information is gathered from existing research rather than being collected firsthand [21]. The data and information in the library will be analyzed and collected. Relevance to the topic at hand (local wisdom, character education, and independent curriculum); reliability (research reports, national journals, international journals, relevant books, scientific articles, and related data); and timeliness (recentness) all played roles in selecting the literature for this article (publication in the years 2014-2024) as reported by [22].

The research process for conducting a systematic literature review (SLR) is a structured and rigorous methodology designed to ensure the comprehensive and objective synthesis of existing

knowledge. This process involves several well-defined steps that researchers must meticulously follow to achieve reliable and replicable results.

2.1 Planning Stage

The first phase, *planning*, is foundational, as it sets the direction and scope of the review. During this stage, researchers identify the primary objectives of the study and formulate clear and focused research questions. These questions act as a guiding framework for the entire process, helping to define the inclusion and exclusion criteria for selecting relevant literature. Researchers must also develop a detailed protocol or roadmap outlining the systematic approach they will use, including databases to search, keywords, and the criteria for assessing the quality and relevance of the literature. This step ensures transparency and reduces bias in the review process, aligning the study's goals with the broader academic or practical context.

2.2 Review Stage

The second phase, *review*, is a multi-step process involving the selection, categorization, and evaluation of relevant literature. Researchers utilize electronic-based search engines, such as Google Scholar, Scopus, or Web of Science, to locate academic publications aligned with the research objectives. Advanced search techniques, including Boolean operators, keyword combinations, and filters, are employed to refine results and enhance the precision of the search process. Once a comprehensive list of potential sources is identified, researchers screen the literature based on the pre-established criteria. This involves reviewing abstracts, keywords, and, when necessary, full texts to determine whether the content aligns with the scope of the study. Relevant publications are then categorized based on themes, methodologies, or findings to facilitate systematic analysis. At this stage, it is also important to assess the quality and credibility of the selected works. Researchers often rely on established tools, such as the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, to document and organize their process effectively. This ensures that the study captures a broad yet focused view of the subject area, identifying gaps in knowledge and synthesizing patterns or trends.

2.3 Synthesis and Conclusion

In the final step, researchers draw conclusions from the collected data, summarizing the insights gained and linking them to the study's objectives. This involves critical analysis of the findings, comparing and contrasting methodologies, and highlighting both consistencies and discrepancies in the literature. The results of the review are then contextualized within the broader field of study, offering implications for future research, policy, or practice. It is important to note that SLRs are limited to already published works, such as articles, peer-reviewed journals, conference proceedings, or academic papers. By focusing on these established sources, researchers ensure the reliability and validity of their conclusions.

However, this limitation also underscores the importance of periodically updating SLRs to incorporate new and emerging research.

2.4 Significance of the Systematic Literature Review Process

The structured nature of an SLR not only improves the quality of research outcomes but also ensures that the review process is transparent and replicable. By providing a comprehensive synthesis of existing knowledge, SLRs contribute to the academic community's understanding of a topic and guide future investigations. The process is particularly valuable in identifying research gaps, understanding trends, and evaluating the robustness of current theories or practices. In conclusion, systematic literature reviews are a cornerstone of evidence-based research, offering a disciplined and methodical approach to understanding complex topics. Through careful planning, detailed review, and thoughtful synthesis, researchers can produce meaningful insights that advance both theoretical and practical knowledge in their respective fields.

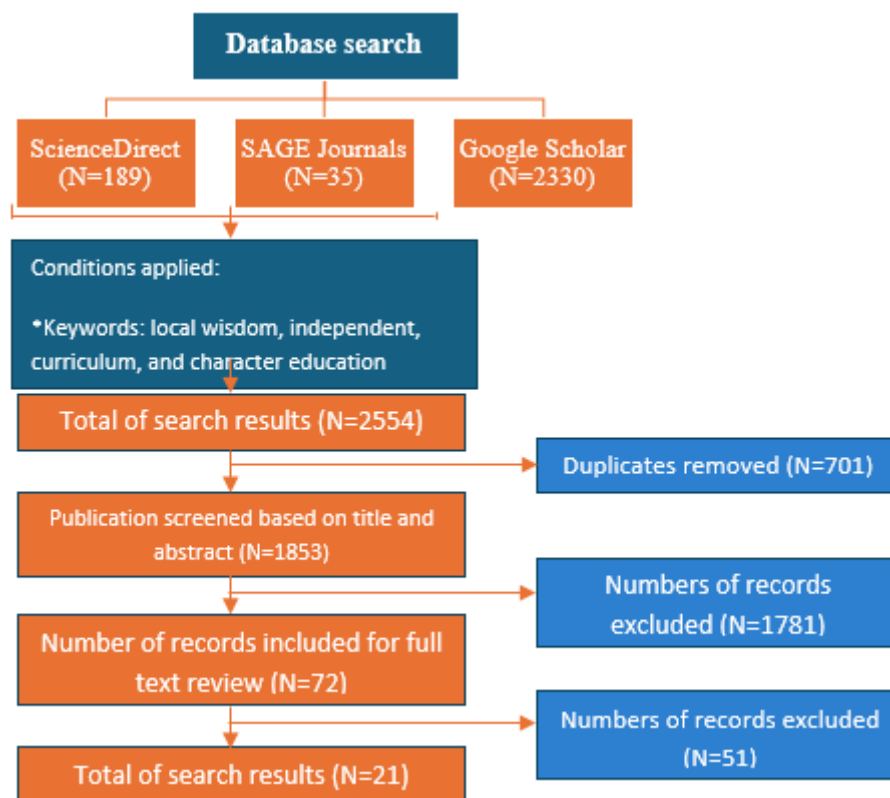


Fig. 1. Flow of Information Through the Different Phases of a Systematic Literature Review

3 Results & Discussion

3.1 Local Wisdom

Local wisdom is derived from the combination of the words "wisdom" and "local," referring to the cultural traits specific to a particular place. It encompasses the ideas and practices that govern human interactions, relationships with the environment, and belief systems [23], [24]. Local wisdom can also be understood as a perspective on life that emerges within a specific social and ethnic group, influenced by regional, geographical, and distinctive historical experiences. This perspective should not be seen as conflicting with other viewpoints, but rather as a fundamental component that shapes the cultural identity of a community [25].

Local wisdom encompasses the wisdom, knowledge, and traditions that are specific to a particular location or culture. It pertains to various parts of life and embodies valuable and insightful values that are passed down from one generation to the next [26]. Local communities also acquire the ability to effectively address disagreements and issues in a peaceful manner, demonstrate tolerance, and embrace diverse perspectives embedded in their cultural history [27]. Hence, local wisdom serves as both a protector of cultural legacy and a moral and ethical compass that molds the collective character of society [28], [29].

Local wisdom typically possesses unique and significant attributes and roles within a community in a given region, including: (a) As the embodiment of a culture or environment, (b) as a cohesive force within society in the social context, (c) as a cultural element that undergoes organic evolution, (d) possesses a positive worth, specifically the presence of unity for a particular culture, (e) entails a shared comprehension or mutual understanding among individuals or groups in communication, (f) has the capability to foster the establishment of unity, appreciation, and a collective mechanism to safeguard against potential disruptions or threats to overall community solidarity and integration [30]. According to this, the local wisdom's identity serves as a significant influence in preserving the cultural values it holds, contributing to the development of the community's individual character [31].

Incorporating the utilization of indigenous knowledge in the educational process within the framework of the Independent Curriculum. The concept of the Independent Curriculum aims to facilitate meaningful and effective learning by granting education providers the freedom to build a curriculum that aligns with the specific needs of students and the local context. Furthermore, the implementation of the Independent Curriculum prioritizes a learning approach that is adaptable, inclusive, and focused on the needs of students. This approach is aligned with the 21st century skills of problem-solving, creativity, communication, and collaboration, which are essential for knowledge development and the utilization of technology [32]. The Independent Curriculum is founded on a framework that emphasizes a contextual, inclusive, and student-centered approach. This method tailors the learning process to meet the unique needs and abilities of each individual student, while also fostering creativity and active engagement. It achieves this by including concepts and skills that are directly applicable to everyday life.

The utilization of local wisdom as a catalyst for self-directed learning is evident in the application of the independent curriculum. This educational approach integrates cultural values, traditions, and local wisdom into the learning process, enabling students to comprehend and value their cultural heritage while actively engaging in their own education.

3.2 Influence of Culture and Values of Local Wisdom on Learning and Curriculum in Other Countries

Integrating the value of local wisdom in learning is not only in the curriculum in Indonesia. Some countries have already designed and even reformed national education curricula that stick to culture to prepare students for global challenges, like the country of Finland, where the education system is used as a reference by various countries in the world. The curriculum used today in Finland is a hybrid curriculum model, consisting of a general section that concentrates on culture as a basic value, learning concept, and learning environment feature that reflects the traditions of the curriculum. However, their form of curriculum is very contextual, political, and even often driven by policy. However, curriculum reform in Finland has always been placed in society and based on the country's culture and local wisdom values [33].

In addition, the primary goal of China's current curriculum reform is to meet the economic, social, political, and educational demands of a rapidly evolving society [34]. They do this by preparing students to compete globally and preserving their sense of national identity. The law specifically examines how the Chinese state handles the pressures of external globalization by maintaining its cultural traditions integrated into the curriculum and learning in schools [35].

Hawaiian Cultural Influences in Education (HCIE) performed research that discovered many connections between the use of culture-based pedagogical practices in the classroom and improved academic performance for students. When it comes to students' mental health, culture-based learning (CBE) programs provide several notable advantages (e.g., identity, confidence, and social relationships). Students who were taught utilizing CBE, which emphasizes the importance of local knowledge, were found to have stronger relationships to their communities, as seen by their participation in environmental protection efforts and attendance at public meetings about community issues. Students also report having better interactions with faculty and are more inclined to employ cultural skills in their communities. With a stronger feeling of community and school pride, they are more likely to take care of their surroundings. It is crucial that these ties be robust if we are to produce future-ready kids who are actively engaged in their learning [36].

Using local knowledge to improve education in Thai primary schools is a goal of Chusorn et al. because of the influence of other nations and societies, Thailand has been able to adapt to the modernization of science and culture by creating new knowledge that is in line with local demands. Integration of the value of local knowledge into the educational process demands the joint effort of all stakeholders, including government agencies, commercial groups, educational institutions, and both national levels. To help the innovative Thai policy respond by increasing the value of products and services based on Thai culture and local wisdom, and thereby strengthening the cultural and economic order, the following is the right model for applying local wisdom in the curriculum and learning and development of teaching in elementary schools [37]. Temples and churches should serve as hubs for the growth of local wisdom, learning resources, and learning processes; 1) the public and private sectors must collaborate to promote community-based learning and teaching; 2) educational institutions and organizations in the community must collaborate and support the creativity of village leaders and philosophers; and 3) Educators, for their part, should immerse themselves in their communities, learn all they can about them, and select lesson plans that integrate what they've learned with what they've observed from their students and their own experiences, while school administrators should provide direction at the institutional level by inspiring and motivating students, parents, and community members to work together in the classroom [38].

Next, education in Romania faces many challenges. Quality assurance of education is the responsibility of each educational institution, and the integration of culture and local wisdom is used as a foundation for developing quality education. The culture integrated into quality learning is considered a priority for developing educational institutions in Romania. It is the key to continuous improvement, sustainable competitive advantage, and excellence in a knowledge-based society [39].

3.3 Integration of Local Wisdom Values in Learning in the Independent Curriculum

The independent curriculum is a competency-based curriculum to support learning recovery by implementing project-based learning to support character by the Pancasila Student Profile. This curriculum is the last option for educational units that can restore learning. The independent curriculum is one of the preferred curricula (options) that teachers can apply to educational units in 2022/2024. This curriculum continues the direction of development of the previous curriculum (curriculum 2013). The independent curriculum is an additional option for the education unit to carry out learning recovery. Suppose you look at the policies taken by policymakers later before the national curriculum is evaluated in 2024. In that case, the education unit is given several curriculum options to be applied in schools. The independent curriculum structure is used for character development of Pancasila student profile through project-based learning as much as 20%-30% of lesson hours. Because of its emphasis on experiential learning, integration of core learner abilities across disciplines, and adaptability, project-based learning is an effective tool for character development [40].

Local wisdom for the benefit of national education is one of the goals that we must achieve because this is the glue that can guide the identity of a pluralistic nation. A pluralistic nation means that the nation's wealth in culture becomes the main factor that unites all components of the nation in one republic. The local wisdom manifested in ideas, outlook on life, science, and all kinds of life determines how the nation exists. Local wisdom is the spirit of life of the local area for the national interest that teaches living behavior that should be internalized and becomes a principle of life that educators must enforce in building a nation [41]. Local wisdom contributes to national education. The step of realizing national education with a vision by empowering all citizens to answer the challenges of the times in the next phase is a strategic point of view in applying local values in nature to educate the nation. To convey the values of local wisdom to students, school as formal education has a very important role in realizing it.

From the system's perspective, education only serves as a dispenser of knowledge. The education system is also a driver of the growth of noble values that form the basis of one's good character [42]. It includes acts of honesty, fairness, democracy, discipline, and tolerance. In addition, character is a moral force that can serve as a determinant of a person in acting. It is important to remember that character is not something that only exists and grows in a person but can be learned and developed in life through education [43]. Character education for elementary school students is carried out through integrative thematic learning, also known as integrated learning. The learning process not only gives students an integrated perspective on general knowledge (through the learning of models, systems, and cultural structures) but also motivates them to create new models and systems in an integrated curriculum or interdisciplinary curriculum [44]. Define an interdisciplinary curriculum as a view of curriculum knowledge and approaches that apply methodologies and discussions from more

than one field to analyze a central theme, problem, topic, or experience [40]. In other words, this thematically integrated curriculum leads students to have a comprehensive understanding of reality, both social and scientific environments.

Consideration in the development of the curriculum, teachers' ability to integrate school conditions and their environment in learning must develop well to facilitate the achievement of local and national interest goals. The involvement of students who are active in the learning process through integrating the value of local wisdom also needs to be appreciated by teachers to realize the confidence of students who have tried their best in learning [45]. As part of the learning process, whatever students have. In contrast, learning is considered *life is learning* so that they can internalize the knowledge gained from the learning process wherever and whenever they are. In short, the value of local wisdom integrated into the independent curriculum has a significant contribution to the national interest of education in responding to global challenges.

Curriculum can be achieved through a series of steps and strategies, including: (1) assessing the current state and potential of the region, (2) establishing the functions and goals, (3) defining the criteria and study materials, and (4) creating a learning plan based on local wisdom [6]. To effectively integrate local wisdom into the learning process in the Independent Curriculum Concept, it is crucial to follow these procedures and techniques. This integration will have a good impact on student learning by building a sense of pride in their own culture and identity.

Utilizing local wisdom as a source of inspiration in the independent curriculum is a highly suitable and significant measure. This demonstrates an acknowledgment of the cultural and geographical diversity in Indonesia, as well as the crucial role of incorporating local cultural heritage into education to fortify the foundations of learning [46], [47].

Table 1. Independent Learning Pattern Fosters Local Wisdom to Strengthen Educational Pillars

N o.	Education Pillar	The Value of Local Wisdom	Implementation
1.	Character Pillars, such as the ideals found in local wisdom, are frequently aligned with the development of a resilient and virtuous character.	The aforementioned qualities, including honesty, diligence, respect for others, and a strong feeling of responsibility, are frequently stressed in the local culture and contribute to one's success.	Individuals can acquire and implement these principles in their everyday existence, thereby fortifying the fundamental aspects of character within the realm of education [27], [48], [49].
2.	Cognitive Pillar: Specifically, incorporating local wisdom into the learning process helps enhance students' comprehension of academic topics.	Local cultural stories, customs, and practices can serve as effective vehicles for teaching concepts derived from disciplines such as history, physics, mathematics, and others.	Assisting students in establishing stronger links between academic ideas and the practical aspects of their life, hence enhancing the fundamental cognitive foundations of education [50], [51].

3.	Emotional and Social Pillars: Local knowledge frequently encompasses social and emotional practices that contribute to the enhancement of pupils' social and emotional skills.	Students can acquire knowledge about empathy, cooperation, and tolerance via the study of folklore and community traditions.	This contributes to the enhancement of the emotional and social aspects of education, which play a crucial role in the development of well-rounded persons and have a favorable impact on society [52], [53].
4.	Aesthetic Pillar: The aesthetic pillar encompasses the significance of local wisdom, which is frequently intertwined with artistic expressions, including art, music, dance, and various other forms.	Schools can expand students' comprehension of aesthetics and imaginative manifestation by acquainting them with the local arts and culture.	Contributing to the enhancement of the aesthetic aspect in education, which is crucial for the cultivation of art appreciation and cultural aesthetics [31], [32].

Moreover, the findings of the Literature study indicate that incorporating local wisdom into the Independent Curriculum has demonstrated notable efficacy in the learning process. (1) The research conducted by Hasanah et al. explains that local wisdom values are utilized as educational materials in learning activities to facilitate the development of contextual, relevant, and integrated learning experiences for students, aligning with the objectives of the systematic independent curriculum [54]. (2) Furthermore, a study conducted by Drupadi et al. elucidates that incorporating local wisdom into the learning process not only facilitates a more profound comprehension of topics among students, but also fosters their cultural awareness and appreciation for community values [55]. Furthermore, in accordance with the principle of autonomous learning that highlights the execution of learning by students, they are granted the liberty to acquire knowledge through both formal and informal means. This presents an opportunity for educational institutions to serve as problem-solving providers within the community setting [56].

Incorporating the significance of indigenous knowledge within the framework of the Independent Curriculum entails not only safeguarding local culture and customs, but also enhancing the educational groundwork for students in all spheres of life. These constraints primarily pertain to the ongoing assessment and monitoring of the efficacy of incorporating local wisdom into the Independent Curriculum [8], [9], [11]. The objective is to guarantee the optimal attainment of the goals and advantages associated with the integration of local wisdom. Systematic and ongoing assessment can aid in recognizing achievements, difficulties, and possibilities during the implementation procedure [57]. Therefore, this approach fosters a more comprehensive, pertinent, and significant educational experience for students, enabling them to develop into individuals with integrity, expertise, and a competitive advantage in the age of globalization.

4 Conclusion

The independent curriculum prioritizes the autonomy of individuals to investigate their interests, talents, and potentials as the fundamental aspect of the learning process. This implies that students possess the autonomy to ascertain their own trajectory of learning, based on their own interests and capabilities. The objective is to establish an educational setting that enables students to cultivate their whole development and prepare them to confront diverse difficulties in society. The major obstacles encountered in the period of globalization pertain to the preservation of indigenous knowledge and its harmonious integration with advancements in science and technology. The integration of many components is crucial for enhancing the standard of education and guaranteeing that learners possess the necessary abilities and information that are applicable to the swiftly evolving global environment. Utilizing local wisdom values in education serves the purpose of preserving cultural identity while also yielding wider ramifications. The declaration emphasizes the significance of incorporating indigenous knowledge to reinforce the foundations of education within the framework of the Independent Curriculum, including the character, cognitive, emotional, social, and aesthetic aspects. Moreover, organized and ongoing evaluation is crucial during the implementation process as it may offer a comprehensive comprehension of the advancements, challenges, and potential possibilities that may develop.

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