

## THE IMPACT OF CURRICULUM CHANGES ON THE QUALITY OF ELEMENTARY SCHOOL LEARNING IN INDONESIA

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**Abstract:** Curriculum changes are not just a change of documents, but must reflect the country's struggle in facing social, technological, and globalization developments. The study used a systematic literature review method by examining more than fifty reputable journal articles (Scopus index) in the last five years as well as several relevant local primary sources. The analysis found that the independent curriculum provides flexible space for schools and teachers to develop project-based learning and Pancasila student profiles. However, challenges are still found such as teacher unpreparedness, digital infrastructure disparities, science literacy gaps, and differences in implementation between regions. This article provides recommendations on teacher capacity building, structuring curriculum change management, strengthening collaboration between schools and communities, and improving digital literacy and instilling local cultural values. These findings are expected to help policymakers, researchers, and practitioners design curriculum policies that are more responsive to the needs of the 21st century while maintaining national identity.

**Keywords:** Curriculum Change, Quality of Learning

### 1. INTRODUCTION

The curriculum is the heart of the education system because it guides the entire learning process, starting from the formulation of goals, content selection, methods, to assessment. In Indonesia, the curriculum undergoes changes almost every decade in response to social dynamics and global challenges. From the 1947 Lesson Plan to the Independent Curriculum which will come into force nationally in 2024, each change brings hope for improving the quality of education but also gives rise to new complexities. Changes that are too fast and not supported by system readiness can cause confusion and decreased performance. This is exacerbated by differences in the quality of resources between regions and technology gaps. COVID-19 accelerated the dissemination of alternative curriculum. The government allowed schools to choose the 2013 Curriculum, the emergency curriculum, or the Independent Curriculum during the pandemic. This policy shows the importance of curriculum flexibility and the readiness of teachers and schools to adapt to emergency situations. As conditions recover, the Independent Curriculum is implemented more widely. This concept emphasizes differential learning, projects

to strengthen Pancasila student profiles, and reduce administrative burdens. However, its effectiveness is highly dependent on teachers' ability to shift the paradigm from traditional teachers to facilitators and the availability of infrastructure. This article focuses on the analysis of the impact of curriculum changes, especially the transition from the 2013 Curriculum to the Independent Curriculum, on the quality of learning in elementary schools. Using a literature approach, this paper highlights issues that are often overlooked: teacher readiness, technology integration, local character and culture, infrastructure gaps, and stakeholder participation.

## 2. RESEARCH METHODS

This article uses a literature review method with a systematic procedure based on the guidelines of *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA). The authors collected articles from the Scopus database, *the Directory of Open Access Journals* (DOAJ), *the Educational Process: International Journal* (EDPIJ), and reputable national journals over the past five years (2021–2025). The keywords used include the Independent curriculum, the quality of elementary school learning, project-based learning, teacher training, digital literacy, Pancasila Student profiles, and educational technology. The inclusion criteria include articles that analyze the impact of the curriculum on the quality of learning in elementary schools, written in Indonesian or English, and indexed by Scopus. Articles that focus only on the level of higher education or are not relevant to educational technology are excluded. The initial selection resulted in more than 300 articles, but after reviewing the title, abstract, and accessibility, 54 articles were selected that met the criteria. Additional sources are drawn from official documents such as the Independent Curriculum guidelines and *the Programme for International Student Assessment* (PISA) report to reinforce the context. The analysis is carried out using narrative synthesis techniques to find key themes and identify trends, gaps, and critical issues. The inclusion and exclusion criteria used in the article selection process are summarized in full in Table 1 and Figure 1.

Table 1. Inclusion and Exclusion Criteria for Article Selection

Aspects	Inclusion Criteria	Exclusion Criteria
Education Level	Elementary School (SD)	Higher Education or other levels
Writing Language	Indonesian or English	Languages other than Indonesian / English

Indexation	Indexed by Scopus, DOAJ, or a reputable national journal	Unindexed / Unreputable
Year Range	2021–2025	Before 2021
Topic Relevance	Focusing on the impact of the curriculum and the quality of elementary learning	Irrelevant to elementary education technology

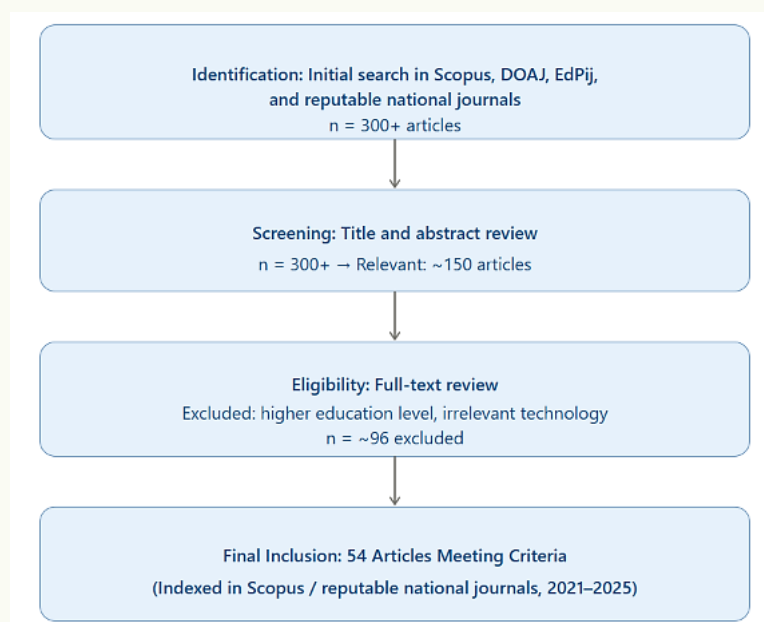


Figure 1. Article Selection Flow Based on PRISMA Guidelines

### 3. RESULTS AND DISCUSSION

#### The Positive Impact of Curriculum Changes

##### Learning Flexibility and Increased Student Motivation

The Independent Curriculum provides flexibility for teachers and students to determine material according to their interests and local conditions. Research on SD Tegalsari shows that the planning stage involves socialization and teacher training, the development of teaching materials, and the provision of facilities; its implementation emphasizes project-based learning and problem solving; The assessment is carried out through diagnostic, formative, and summative assessments (Yuniarti & Kusuma, 2024). This approach improves student engagement as well as critical and creative thinking skills. Another study found that the implementation of project-based learning strengthens the profile of Pancasila Students, fostering a sense of responsibility, collaboration, and creativity (Fauzan et al., 2023).

##### Character Strengthening and Local Value Integration

The Merdeka Curriculum places the project of strengthening the profile of Pancasila students as the core of learning. Students are invited to understand the value of mutual cooperation, diversity, independence, and justice through real activities, such as environmental conservation projects or social services. Literature studies show that the integration of local cultural values helps students feel close to the material and increases learning motivation (Kamil et al., 2023). This curriculum also emphasizes the formation of character according to national identity so that students do not only master academic competence but also have moral integrity.

### **Technology Innovation and Online Learning**

The Merdeka Curriculum encourages the use of digital technology, such as online learning platforms, interactive modules, and multimodal content. Systematic evaluation research found that common implementation strategies include teacher professional development, school leadership improvement, project-based learning implementation, and local value integration (Mujiburrahman et al., 2025). Challenges in the form of low digital literacy and limited infrastructure are overcome through intensive training and the provision of devices. A study on the integration of technology in English language learning in Payung District rural schools shows that teachers use platforms such as Quizziz, Google Classroom, and YouTube to increase student motivation, but are hit by poor connectivity and device limitations (Tristiana et al., 2025). This shows the need to strengthen infrastructure support and policies that encourage equitable access to technology.

### **Improving Teacher Performance and Motivation**

Research in West Aceh shows that the implementation of the Independent Curriculum and teacher motivation contribute significantly to improving teacher performance (Syukri et al., 2025). The Independent Curriculum encourages teachers to implement adaptive, reflective, and collaborative practices; while intrinsic and extrinsic motivation increases teacher dedication. Regression analysis showed that 80.2% of the variation in teacher performance was explained by these two factors. These findings confirm that emotional and professional support need to be given attention along with curriculum implementation.

### **Learning Style Adjustment and Differentiation**

A study on the influence of curriculum on learning styles found that the Independent Curriculum succeeded in balancing students' visual, auditory, and kinesthetic learning preferences. Mixed experimental research showed that male students with visual learning styles achieved an average math score of 84 and a kinesthetic score of 84.5 in Indonesian subjects; there were no significant differences between learning styles (Umar et al., 2025). This indicates

that a flexible curriculum is able to accommodate a variety of learning styles and maintain equality of learning outcomes.

### Negative Impacts and Implementation Challenges

#### Teacher Readiness and Administrative Burden

The low readiness of teachers is the main challenge. A national survey shows that 52% of teachers say they are not ready to carry out authentic assessments and require in-depth training (Samuel Ben Gurion, 2024). Literature research also reveals that many teachers have not understood the new paradigm and often return to conventional methods (Ningsih & Mahmudah, 2023). The administrative burden that is still large, such as filling out digital platforms and reports, hinders teachers' creativity in designing projects.

#### The Infrastructure Gap and the Digital Divide

Disparity in internet access hinders the application of educational technology. A Teachers College report states that 26.3% of Indonesians do not have internet access and 104,000 schools are still disconnected from digital networks (Rahman & Hartono, 2024). Equality of access is also influenced by gender factors: only 27% of women work in the tech sector, suggesting there are social and economic barriers that need to be overcome. A study in Payung District confirms that poor connectivity and limited student devices limit the effectiveness of online learning (Tristiana et al., 2025).

Overall, the positive impacts and challenges of implementing the Independent Curriculum in elementary schools are summarized in Table 2 below.

Table 2. Comparison of the Positive Impacts and Challenges of the Implementation of the Independent Curriculum in Elementary Schools

Aspects	Positive Impact	Challenges/Negative Impacts
Learning	Flexibility, project-based learning, increased motivation	The transition period led to a temporary decline in performance
Teacher	Increased motivation and performance (80.2% explained by two factors)	52% of teachers have not completed authentic assessments; High administrative burden
Technology	Encourage online platforms; Increased student engagement	26.3% do not have access to the internet; 104,000 schools without a network
Character & Culture	Pancasila Student Profile; integration of local values strengthens identity	Imbalance in local cultural understanding among teachers

Equity	Driving Schools Receive Intensive Government Support	The urban–rural gap; Learning Loss in Remote Areas
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### **Differences in Policy Implementation and Continuity**

Analysis of driving schools shows variations in implementation, for example, the availability of Chromebooks encourages digitalization but is not even (Suroyo & Utomo, 2022). Some schools still lack Islamic Religious Education and Physical Education, Sports, and Health (PAI & PJOK) teachers, as well as supporting facilities. The lack of integration between levels of government and the change of education officials caused policies to change before they had time to be comprehensively evaluated.

### **Interregional Inequality and Pandemic**

Alternative curriculum (emergency curriculum) during the pandemic was provided so that schools could adjust to local conditions. However, differences in implementation create a gap in quality. In urban areas, technology integration is easier, while in rural areas teachers have to be creative with limited resources. This gap has the potential to widen the disparity in academic achievement and cause learning loss.

### **Formative Assessment and Assessment**

Research on formative assessments in the Merdeka curriculum in English subjects found that new teachers apply some strategies such as quizzes and oral questions, while other aspects such as grammar assessments are still poorly integrated (Latifa et al., 2023). Limited understanding and resources cause teachers to not make optimal use of formative feedback. This shows the importance of assessment training and the development of instruments in accordance with the principle of differentiation.

### **The Role of Technology in Supporting Learning**

The development of digital technology opens up new opportunities for basic education. Literature research shows that the development of digital literacy requires collaboration, innovation, and early childhood digital learning as a mediator to improve continuous education (Gema Ika Sari et al., 2024). Elementary teachers who use platforms such as Quizziz and Google Classroom report increased student engagement (Ningsih & Sari, 2024). However, challenges in the form of low digital literacy, connectivity, and lack of digital tool standards still emerge. Studies show that the application of technology must also be accompanied by clear structural support, training, and policies. In addition to digital technology, the concept of *blended learning* that combines face-to-face and online learning can minimize learning loss. This model

has been piloted in several elementary schools through project-based learning and teacher collaboration; As a result, students are more actively participating and have the opportunity to explore the material independently (Ulyana & Rudyanto, 2022). However, periodic evaluations are needed so that the blended model is not just an additional burden for teachers.

### **Strengthening Teacher Competencies through Training and Community**

Teacher readiness is a determining factor for curriculum success. Professional training programs such as teacher learning communities, *coaching clinics*, and digital workshops are important strategies. Systematic evaluation studies summarize that teacher training, school leadership strengthening, and cross-sectoral collaboration are often recommended implementation strategies (Mujiburrahman et al., 2025). Other papers emphasize that curriculum modules should provide simple assessment guides and authentic rubric examples to assist teachers. Research in the field of mathematics learning in elementary schools also emphasizes the role of continuous training and the provision of facilities in improving the quality of learning (Wahyudi et al., 2025). In particular, training needs to be focused on differentiation approaches, formative assessments, and technology integration. Teachers are encouraged to use diagnostic and formative assessments in order to adapt learning to the level of ability of students. Digital skills must also be improved, including the use of e-learning platforms and classroom management applications.

### **Integration of Local Cultures and Contextual Learning**

An independent curriculum requires schools to adopt a local context. Studies show that integrating local culture into learning strengthens students' identities as well as increases the relevance of the material (Kamil et al., 2023). The Pancasila student program encourages students to understand national and local values through activities such as traditional games, regional dances, or social projects in the community. The implementation of local culture also helps teachers use materials that are close to students' lives and increase parental participation. However, there is still an imbalance in the understanding of local culture among teachers. Some teachers are accustomed to homogeneous national materials and need clear guidance to integrate local values without neglecting basic competencies. The involvement of local communities, indigenous leaders, and cultural institutions needs to be encouraged to support this process.

### **International Comparison and Learning from Good Practice**

A comparative study with the Victoria F-10 Curriculum Australia shows that the overseas curriculum emphasizes a balance between core knowledge and cross-disciplinary thinking such as critical thinking and ethics. The Victoria F-10 also provides clear standards for each grade level, while the Independent Curriculum provides greater flexibility but is less supported by

standardized assessment tools. The recommendations from the analysis are the need for an evidence-based adaptive curriculum that links core competencies with critical thinking and ethical skills, as well as teacher empowerment through clear policies (Anggraini et al., 2026). The experiences of Singapore and Japan show that massive investments in teacher training, curriculum simplification, and community participation underpin the success of reforms. Singapore places teachers as *curriculum designers* who receive research support and professional development time, while Japan emphasizes collaboration and moral education. Indonesia needs to learn from these practices, especially in terms of simplifying material burdens, granting autonomy to schools, and equitable allocation of resources.

### **The Effect of Curriculum Changes on Learning Outcomes and Achievement**

Analysis of the impact of the curriculum on learning outcomes shows mixed results. Some studies have found an increase in critical thinking skills and creativity after the implementation of the Independent Curriculum, while other studies show a temporary decrease in achievement due to the transition period and teacher uncertainty. International assessments such as PISA 2015 ranked Indonesia 62 out of 70 countries in reading and mathematics skills (Nasir, 2024). Although the latest PISA data does not yet reflect the implementation of the Independent Curriculum, these low results illustrate the urgency of curriculum reform and improved learning quality. A literature study on the effectiveness of the Independent Curriculum as a replacement for the 2013 Curriculum states that the new curriculum emerged due to the pandemic emergency and the need to adapt to the times; This curriculum emphasizes student interests, Pancasila student projects, and character (Desi Suryati et al., 2023). However, the absence of thorough evaluation and consistent government support affects learning outcomes.

### **Parent and Community Involvement**

The participation of parents and local communities is very influential in the success of the new curriculum. Research on technology awareness among parents shows that families play an important role in providing learning and mentoring facilities. The driving school program emphasizes intensive government support and community collaboration; schools receive digital facilities and training for educators (Fauzi, 2022). However, the economic ability gap has caused a number of parents to be unable to provide devices for their children. The Independent Curriculum also invites the community to be involved in contextual learning, for example through entrepreneurial projects or environmental activities. This collaboration not only enriches the student experience but also strengthens the school's relationship with the community.

## 4. CONCLUSIONS AND SUGGESTIONS

### CONCLUSIONS

The change in the curriculum from the 2013 curriculum to the independent curriculum has had a significant positive impact on the quality of learning in elementary schools, especially in terms of learning flexibility, character strengthening through Pancasila student profiles, increasing student motivation, and integrating digital technology. The success of curriculum reform is highly dependent on the readiness of the education ecosystem as a whole, not just changes in policy documents.

### SUGGESTIONS

Curriculum policies should be based on ongoing research and evaluation taking into account the balance between national standards and local needs. In addition, collaboration between schools, parents, society, and industry needs to be strengthened, and digital literacy programs must reach students and parents with gender justice in mind.

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