

## **Transformation of Traditional Learning Models in Elementary Schools in Lampung Province: An Adaptation Approach**

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**Abstract: Transformation of Traditional Learning Models in Elementary Schools in Lampung Province: An Adaptation Approach. Objective:** This study aims to explore the transformation of traditional learning models in elementary schools in Lampung Province in response to the emerging challenges and opportunities of the digital era. The main focus is to examine how the adaptation of instructional approaches, particularly in methods, media, and teacher roles, can improve the quality of basic education through the integration of information and communication technology (ICT). This transformation is viewed as essential in meeting the educational demands of the 21st century. **Methods:** This research employs a descriptive qualitative approach, using data collection techniques such as observation, in-depth interviews, and documentation. The study participants include teachers, principals, and students from several elementary schools in Lampung Province that have initiated the implementation of digital learning models. Thematic analysis was employed to identify patterns of adaptation, challenges in implementation, and strategies developed to address these changes. **Findings:** The study reveals that learning transformation involves not only the use of technology but also significant shifts in the teacher's role as a facilitator, more participatory teaching strategies, and dynamic patterns of interaction. Key challenges include limited ICT infrastructure, human resource readiness, and resistance to school culture change. However, there are significant opportunities through teacher training, digital curriculum development, and supportive education policies. The two most important findings are: first, teachers successfully modified traditional teaching into project-based and collaborative learning supported by ICT; second, students showed increased engagement and learning motivation in interactive digital environments. **Conclusion:** The transformation of learning models in elementary schools is a complex process that requires fundamental changes in how knowledge is constructed, shared, and applied. Collaborative strategies among educational stakeholders, sufficient technological support, and capacity-building for teachers are essential to establishing an adaptive, inclusive, and sustainable learning ecosystem. This study makes a conceptual contribution by demonstrating that teacher agency in resource-constrained settings can bridge the gap between global constructivist pedagogical ideals and local sociocultural realities, resulting in a unique and contextually grounded hybrid learning model.

**Keywords:** learning transformation, digital era, educational technology, education quality, teacher roles.

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## ■ INTRODUCTION

Indonesia's national education system has long prioritized universal access to elementary schooling. A 2003 law guaranteed basic education for all, and today nearly 97% of children aged 6–12 attend primary school (OECD, 2015, pp. 112–114). Despite this success in enrollment, observers warn that the quality and equity of learning outcomes remain uneven. In many parts of the archipelago, especially in remote or rural areas, students lag behind their peers in basic literacy and numeracy (Susanti et al., 2020, p. 76). A World Bank survey found that only 17% of Indonesia's poorest rural primary schools had reliable internet access, and a plurality of teachers lacked professional qualifications (OECD, 2015, p. 118). This systemic heterogeneity reflects Indonesia's vast geography and cultural diversity: a unified national curriculum must contend with hundreds of local languages and customs, as well as a legacy of teacher-centered pedagogy (Tilaar, 2002).

The traditional model of Indonesian primary education often resembles what Freire (1970) called the “banking” model, its where the teacher deposits knowledge and the students are passive recipients. Traditional classroom dynamics in Indonesian primary schools are often characterized by teacher dominance and limited student agency, with an emphasis on memorization over critical engagement. While such an approach instills discipline and structure, it does little to cultivate 21st-century competencies such as critical thinking, creativity, collaboration, and digital literacy (Suryani & Sumarni, 2020, p. 138). In light of social and technological change, many education scholars advocate a shift toward more interactive, meaningful, and student-centered instruction (Fullan, 2007; Toffler, 1980; UNESCO, 2015, p. 11).

These pressures are keenly felt in Lampung Province, where the interplay of rich local culture

and emerging technology creates both opportunity and urgency. Previous studies in India have shown that formal teacher training still tends to be in the form of ‘crash courses’ that are less effective in improving long-term competencies. As a solution, programs such as Sampark Smart Shala have been implemented, providing audio and TV devices, as well as structured teacher training modules. This program has reached tens of thousands of rural schools, serving as an innovative example of improving learning quality through technology-based and sustainable training approaches (Mat Yusoff et al., 2016). In Southeast Asia, particularly in Malaysia and Thailand, a synthesis of 36 studies on the use of technology in rural schools revealed that the main challenge is the low level of ICT literacy among teachers and students. To address this issue, several strategies have been implemented, including government intervention in providing infrastructure and training, collaboration among teachers for sharing digital learning materials, and the utilization of existing devices available in schools and homes (UNESCO, 2022). In Vietnam, the study titled *Issues and Challenges in Using ICT for Teaching English in Vietnam* identified limited facilities and a lack of technical support as the main challenges in integrating ICT into teaching. The study employed Activity Theory as an analytical framework to examine how the interactions among teachers, technology, and the school environment shape the dynamics of ICT integration in English language education (Nguyen, 2015). In many rural areas across Sub-Saharan Africa, schools heavily rely on direct, face-to-face instruction without the aid of digital technologies. This is largely due to infrastructural limitations such as unreliable electricity, lack of digital devices, and poor internet access. Teachers take the lead in maintaining educational continuity by designing printed worksheets, implementing small-group rotations, and utilizing community radio broadcasts. This condition

bears a strong resemblance to the situation in rural Lampung, Indonesia, where the transformation of traditional learning models also occurs organically, driven primarily by teacher initiative rather than centralized policy or advanced technologies. Teachers in Lampung creatively adapted traditional lecture methods into more interactive formats, such as small-group discussions or environment-based learning projects. Lampung is known for values such as *piil pesenggiri* (self-respect) and *sai batin* (communal harmony), which shape social behavior, including within education. However, schools in outlying districts such as Way Kanan and Pesawaran continue to rely heavily on blackboards, textbooks, and lectures as primary teaching tools, methods that are increasingly perceived as disconnected from students' everyday realities (Ramli & Nurlaili, 2022; Suryani & Sumarni, 2020). Within Vygotsky's sociocultural learning theory framework particularly the concept of the Zone of Proximal Development (ZPD) the local values of *piil pesenggiri* and *sai batin* provide a cultural lens through which collaborative learning is understood and practiced. The ZPD refers to the optimal developmental zone that learners can reach with assistance from others teachers, peers, or community members when completing tasks they cannot yet do independently. In the context of Lampung, *sai batin*, with its emphasis on harmony and togetherness, reinforces collaborative practices such as group work, mutual assistance, and classroom deliberation, all of which align with the principles of ZPD (Bujuri, D. A., Muqowim, dkk (2023). Meanwhile, *piil pesenggiri*, as a form of personal dignity and social honor, motivates students to perform at their best in front of others but also creates a certain sensitivity toward assistance that might be perceived as embarrassing.

As a result, scaffolding in the learning process must be provided in ways that are

culturally sensitive respecting the learner's autonomy and preserving their self-esteem (face-saving). Teachers are therefore expected to possess cultural competence to guide students without causing shame or diminishing their dignity. Thus, the ZPD in the Lampung context is not a neutral or universal pedagogical zone, but rather an intersubjective space negotiated within the relational, emotional, and ethical values specific to the local culture. This conceptual contribution illustrates that collaboration in learning is not merely a pedagogical strategy, but also an expression of a broader communal life (Assidiqi, M., & Sutarmi, S, 2023).

Similar conditions are also found in many rural areas beyond Indonesia, such as in parts of Vietnam, the Philippines, and Sub-Saharan Africa, where limited technological infrastructure, lack of teacher training, and reliance on conventional methods pose significant barriers to delivering contextual and innovative learning. These challenges demand an adaptive approach that integrates local cultural values with modern educational technologies to build an inclusive and sustainable learning system (Suharto & Marlina, 2023; UNESCO, 2021).

National curriculum policies such as Kurikulum Merdeka (Kemendikbud, 2020) encourage schools to apply flexible, project-based, and technology-assisted approaches. Yet implementation remains uneven due to disparities in infrastructure and teacher readiness (Sumarni & Wahyuni, 2020, p. 50). In this context, pedagogical transformation in Lampung becomes a balancing act between modernization and cultural preservation. Recent field studies show promising efforts: for instance, teachers are starting to use video-based materials, local stories, and collaborative tasks that blend traditional wisdom with interactive techniques (Hidayatullah & Anshori, 2023). In addition, this policy is in line with global trends in 21st century education, which emphasize student-centered, collaborative,

and contextual learning (Fullan & Langworthy, 2014) and is supported by research by Ladson-Billings (2023) with the evolution of culturally responsive teaching to be based on social criticism and very relevant to contextualizing local Lampung values in pedagogical practices (Ladson-Billings, G, 2023).

Internationally, constructivist theorists such as Piaget (1950), Vygotsky (1978), and Bruner (1996) emphasized that learners actively build knowledge through experience and social interaction. Vygotsky's theory of the Zone of Proximal Development emphasizes the importance of guided collaboration and scaffolding, which contrasts with rigid, lecture-based instruction. Similarly, Freire (1970) advocated for dialogical, student-empowering pedagogy that humanizes the learning process. Fullan (2007) later argued that sustainable educational change depends not just on method, but on reshaping school culture and leadership, calling for a systemic rather than piecemeal approach.

Studies on multimodal and contextualized learning in Indonesia further support the shift from monologic teaching toward more engaging and relevant models. Campbell and Thompson (2023) demonstrated how integrating visual, audio, and project-based media increased student engagement in rural settings. Similarly, Fatmawati et al. (2022) found that early-grade students responded more positively to thematic lessons using local stories and digital visuals than to textbook-based learning alone. In Lampung, efforts to transform pedagogy have begun to surface, but they remain sporadic. Teachers often lack formal training in educational technology or contextual curriculum design (Clara, A., & Herpratiwi, 2023). Moreover, local research tends to focus on pilot interventions or outcomes, rather than on teachers' lived experiences of navigating change. As such, there is limited understanding of the gradual, culturally nuanced

process by which traditional models evolve into more interactive and relevant ones.

This research is motivated by the need to fill that gap. It seeks to understand how traditional teacher-centered models in Lampung's elementary schools are being adapted in response to current educational demands. What forms of traditional pedagogy persist, and why? What local values and systemic factors support or inhibit change? How do teachers design lessons that integrate cultural elements and technological tools? These questions form the backbone of this qualitative inquiry. The aim of this study is to describe the nature of instructional transformation in three Lampung elementary schools through a field-based, culturally embedded approach. It focuses not only on the methods used but also on the values, constraints, and innovations that shape them. This study presents a conceptual framework for pragmatic adaptation, explaining how teachers in resource-limited settings navigate the demands of modern constructivist pedagogy within local realities. By integrating cultural values such as *sai batin* and *piil pesenggiri*, a unique hybrid form of transformation emerges, a learning model that is not only adaptive but also socially and culturally rooted.

## ■ METHOD

### Participants

Data were collected over one academic semester (the odd semester of 2024/2025), from August to December 2024. Fieldwork took place in three purposively selected public elementary schools: SDN 1 Tanjung Gading and SDN 2 Kupang Teba in Bandar Lampung City, and SDN 40 Katon in Pesawaran Regency. Three elementary schools were purposively selected based on criteria that represent the overall learning context in Lampung Province. The selection criteria included: (1) geographic location (one school in an urban area, two in rural areas), (2) the level of technological infrastructure

availability (internet access, availability of digital devices), (3) the socio-economic background of the majority of students (calculated based on local BDT/DTKS data), and (4) the level of teacher participation in the Merdeka Curriculum and digital literacy training programs in the last two years. School A, located in Bandar Lampung, has good access to technology and teachers who are quite active in national brave training. School B in Way Kanan represents a remote area with minimal resources, but has one driving teacher who tries innovative approaches. School C in Pesawaran is in the middle position with limited ICT access, but shows a collaborative community effort to adopt project-based learning methods.

These schools were chosen to represent a spectrum of traditional pedagogical practices and emerging adaptive strategies in both urban and rural contexts. A total of 12 key informants participated: nine classroom teachers (three per school) and three principals. In addition, students in observed classes (approximately 60 across all sites) contributed to observational data. Purposive sampling was applied to select teachers and principals who (1) had at least three years of teaching experience, (2) used predominantly teacher centered methods at some point, and (3) had demonstrated interest or involvement in pedagogical innovation. This approach ensured that participants could speak knowledgeably about both legacy practices and ongoing transformations (Patton, 2015).

### **Research Design and Procedures**

After obtaining ethical clearance from the University of Lampung's Research Ethics Committee and written consent from school authorities, data collection proceeded in three interrelated phases. During the first phase, known as the reconnaissance and rapport-building phase, researchers conducted informal visits and introductory meetings to explain the study's

purpose, discuss schedules, and pilot the observation instruments. The core data collection phase then took place over eight weeks, with each school visited for two consecutive days per month. On the first day, researchers observed two lessons per teacher using a structured observation guide. On the second day, they conducted semi-structured interviews with teachers and the principal, each interview averaging 60 minutes and being audio-recorded. In the document gathering and follow-up phase, researchers collected lesson plans, school policy manuals, and samples of student work, and held a follow-up member-checking session with each principal to verify preliminary findings and clarify any discrepancies.

### **Instruments**

Three complementary data collection techniques were employed to ensure a comprehensive and nuanced understanding of teaching practices. Observations were conducted in four to five sessions per school, where the researcher acted as a non-participant observer. This means that the researcher was present in the classroom without being involved in the teaching process or directly interacting with the students. This position was chosen to minimize the researcher's influence on teacher and student behavior (observer effect). Participant observation was guided by a 12-item protocol designed to capture various instructional methods, use of media, student engagement, and the presence of local cultural content. Observers also kept detailed field notes to supplement and enrich the protocol data. Semi-structured interviews were conducted using guides with ten open-ended questions, allowing teachers to discuss their teaching philosophies, experiences with curriculum changes, challenges, and adaptive strategies in depth. Probing questions encouraged participants to elaborate on specific examples from their practice. Document analysis provided

additional context, as researchers reviewed two months' worth of lesson plans for each teacher, as well as school improvement plans and curricular guidelines.

The development of the observation protocol, interview guide, and document-review checklist was grounded in established literature on constructivist pedagogy, educational change theory, and previous Indonesian studies. Expert validation was sought from three educational researchers, which resulted in refinements to item wording and improved alignment with the research aims. To further ensure clarity and feasibility, a pilot observation and one pilot

interview were conducted in a non-study school, confirming that the instruments were practical and understandable for participants. Types of Research Instruments: This study employs two types of research instruments, namely Test Instruments (Cognitive) and Non-Test Instruments, which include Observation Guides, Interview Guides, and Document Review Checklists. The purpose of the Cognitive Test Instrument is to measure students' mastery of certain concepts or materials in accordance with the constructivist pedagogical approach a total of 20 multiple-choice questions with 4 answer options.

**Table 1.** Indicators and sample questions

Indicator	Description of the Skill Measured	Number of Items	Sample Question
1. Understanding basic concepts	Identifying the definition or general principles of a concept	5	What is meant by the "zone of proximal development" according to Vygotsky?
2. Applying concepts	Applying theory in real teaching and learning contexts	5	A teacher assigns a collaborative task to solve a problem. This approach aligns with which theory...?
3. Analyzing situations	Assessing the application of strategies in a teaching case study	5	In the following case study, which instructional strategy best reflects a constructivist approach?
4. Evaluating approach effectiveness	Evaluating the outcomes of using a particular strategy	5	Why is group discussion more effective in constructivist-based learning?

**Table 2.** The classroom observation guide is used to record teachers' teaching behaviors and student engagement within the context of constructivism

Indicator	Description	Number of Items
1. Students' active learning activities	Students engage in discussions, ask questions, explore	3
2. Teacher's instructional strategies	Teacher uses problem-solving, Q&A, projects	3
3. Social interaction	Collaboration among students / between teacher and students	2
4. Reflection and feedback	Teacher encourages students to reflect on their learning outcomes	2

**Table 3.** Semi-structured interview guide used to explore teachers' and students' perceptions of the learning approaches implemented

Indicator	Description	Number of Questions
1. Perception of learning strategies	How teachers/students view the methods used	3
2. Challenges in learning	Obstacles encountered during the learning process	3
3. Changes in learning behavior	Impact on student engagement and motivation	2

**Table 4.** Document review checklist used for reviewing syllabus, lesson plans, and student work

Indicator	Description	Number of Questions
1. Suitability of lesson plan with the constructivist approach	Includes active, reflective steps	3
2. Evidence of student engagement	Projects, learning journals, collaborative reports	3
3. Authentic assessment	Assessment rubrics, formative, portfolios	3

Data analysis followed a thematic approach, drawing on the framework provided by Miles, Huberman, and Saldaña. Coding Tree: (1) Adaptive Teaching Strategy, (2) Simple Digital Media Integration, namely the teacher uses cellphone videos and the teacher displays images from the internet, (3) Use of Traditional Games, namely students play gobak sodor and rope jumping games to learn to count.

Data reduction involved coding transcripts, field notes, and documents with NVivo software to identify segments related to traditional practices, adaptation triggers, and innovation strategies. These codes were then organized into categories and displayed in matrices that cross-referenced themes with participant roles and school contexts. Overarching themes, such as the gradual integration of local culture and the influence of technology, were synthesized from these patterns and subsequently validated through member-checking and peer debriefing, ensuring the credibility and accuracy of the findings. To ensure credibility, the study employed data triangulation (observations, interviews,

documents), and member checking. Detailed contextual descriptions of school settings supported Transferability. Dependability was addressed by maintaining an audit trail of raw data, coding decisions, and analytic memos. Confirmability was enhanced through peer debriefing sessions with the research team.

### Data Analysis

This research employs a qualitative approach with a descriptive case study design. A qualitative method is considered appropriate because the research focuses on understanding the natural setting and social phenomena related to pedagogical transformation in elementary schools (Creswell, 2018, p. 185). A case study design was chosen to allow for in-depth exploration of the teaching practices, contextual influences, and the lived experiences of teachers and school leaders as they navigate the process of adapting traditional learning models to more contemporary approaches. To explore the leadership dimension in this context, in-depth interviews were conducted with school principals



as key informants. These interviews focused on three main aspects, namely their motivations in driving learning innovation, challenges faced during the transformation process, and leadership strategies implemented to manage change at the educational unit level. This approach not only allows for an understanding of the attitudes and roles of individual school principals, but also opens up space to analyze how instructional leadership interacts with other contextual factors including the involvement of the school community in support or sustaining the innovations undertaken.

## ■ RESULT AND DISCUSSION

The qualitative data from classroom observations, interviews with teachers and principals, and documentation revealed a complex interplay of enduring traditional pedagogy and emerging adaptive practices in Lampung's elementary schools. The findings are organized thematically around (a) persistent traditional teaching models, (b) adaptive strategies enacted by teachers, (c) the role of digital media and local culture, and (d) enablers and obstacles in the transformation process.

**Table 5.** Selected interview excerpts from teachers, principals and students

No.	School	Role	Score
1	SDN 1 Tanjung Gading	Teacher	"We have taught like this for years; it's hard to change without more knowledge of new approaches."
2	SDN 40 Katon	Teacher	"Direct lectures help with discipline and getting facts right, but I notice my students hesitate to ask questions or work together on problems."
3	SDN 1 Tanjung Gading	Teacher	"When it rains, the signal is gone. Then we must prepare manual alternatives like posters or cardboard models."
4	SDN 1 Tanjung Gading	Teacher	"I try making my own simple videos on my phone and play them for the children with a small speaker. They focus more when there is an image."
5	SDN 40 Katon	Teacher	"When I use the games they already know, learning feels fun rather than work."
6	SDN 2 Kupang Teba	Parent (Reported)	"Is it really learning if they are just playing?"
7	SDN 1 Tanjung Gading	Student	"I like learning with pictures and videos because I understand faster than just listening."
8	SDN 40 Katon	Student	"If the learning is just sitting and listening, I get sleepy. But when there's a game, I get excited."
9	SDN 2 Kupang Teba	Student	"I was confused when the teacher changed the way of teaching, but my friend helped me, so we learned together."
10	SDN 40 Katon	Student	"I'm shy to ask questions in class. But when we work in groups, I feel braver to share my opinion."

The research findings reveal a complex dynamic in the transition from traditional teaching approaches to more interactive and contextual models in three elementary schools. From the

teachers' perspective, there is an awareness of the limitations of older methods such as direct lecturing, which, although considered effective for maintaining discipline and delivering factual



content, tend to limit students' active participation. As stated by a teacher at SDN 40 Katon, students often hesitate to ask questions or collaborate in solving problems. This suggests that one-way approaches are insufficient in fostering critical thinking and cooperative learning skills. A teacher from SDN 1 Tanjung Gading expressed that infrastructural issues, such as internet signal loss during rain, pose challenges to the consistent integration of technology in learning. However, there are also positive initiatives, such as producing simple learning videos using a mobile phone, which reportedly increase student focus, particularly when visual content is involved. Additionally, strategies like incorporating familiar games into lessons have proven to make learning feel more enjoyable and less like a chore. From the parental perspective, as reported in SDN 2 Kupang Teba, there is concern about the effectiveness of play-based learning. The statement, "Is it really learning if they are just playing?" reflects a gap between educational innovation and traditional parental expectations of what learning should look like. Meanwhile, student perspectives add depth to the understanding of the impact of pedagogical changes. Some students mentioned that learning with pictures and videos helped them grasp material more quickly compared to just listening to verbal explanations. Traditional, monotonous methods led to boredom and drowsiness, whereas games and group activities enhanced motivation and boosted their confidence to participate. Even when some students felt confused by the shift in teaching style, peer collaboration helped them adapt and learn together effectively.

### **Enduring Traditional Practices**

Observation and interview data showed that many Lampung elementary classrooms remain dominated by teacher-centered, traditional models. In the schools studied (SDN 2 Kupang Teba, SDN 1 Tanjung Gading, and

SDN 40 Katon), most teachers still rely heavily on lectures, one-way question-and-answer, and rote drills (Arrasyid et al., *unpublished*). For example, in a Class II Indonesian language lesson, the teacher read a textbook passage aloud, asked basic factual questions, and had students copy answers into their notebooks for the majority of the period, with *no group work or hands-on activities*. This pattern was consistent across grades and subjects. Students were largely passive recipients of knowledge: the teacher was the "center of information" while learners took notes and memorized facts. Such practices align with Joyce and Weil's (2015) characterization of the traditional instructional model: content delivery by the teacher, minimal student exploration, and evaluation focused on factual recall.

Teachers articulated several reasons for persisting with this approach. Many explained that longstanding habits and limited exposure to alternative methods made them comfortable with lecture-based instruction. As one principal observed, "We have taught like this for years; it's hard to change without more knowledge of new approaches" (Interview, SDN 2). A lack of professional development in modern pedagogy, especially in rural areas, was also noted. Additionally, some teachers perceived that strict, teacher-centered methods were easier for classroom control, particularly when students had weaker academic habits or family support. These findings echo Ramli and Nurlaili (2022) and Fullan (2007), who note that in many Indonesian schools, traditional methods persist partly because they are seen as efficient for managing large classes.

Nonetheless, even among traditional practices, signs of ambivalence emerged. Teachers acknowledged that the conventional model, though it instilled discipline and basic skills, falls short in fostering critical thinking, creativity, and collaboration. As one teacher reflected, "Direct lectures help with discipline and getting facts right, but I notice my students hesitate to

ask questions or work together on problems” (Interview, SDN 40). This assessment aligns with research indicating that teacher-centered methods may neglect 21st-century competencies (Ramli & Nurlaili, 2022; Suryani & Sumarni, 2020). In this way, the data suggest that while traditional elements (respect for elders, high discipline) remain culturally valued, their pedagogical form is under pressure to evolve.

These observations are theoretically consistent with constructivist learning theory, which posits that students learn best when actively engaged rather than passively receiving information (Bruner, 1960; Vygotsky, 1978). The predominance of passive learning in Lampung’s classrooms indicates a gap between practice and the constructivist ideal. Yet this gap appears to be narrowing as adaptive practices emerge.

### Adaptive Teaching Strategies

The interviews and observations revealed a range of contextualized strategies that teachers are experimenting with to make learning more active and relevant. Rather than a wholesale abandonment of traditional methods, transformation is gradual and hybrid: teachers blend familiar content with new techniques. The analysis identifies four main adaptive strategies: (1) simple digital media integration, (2) incorporation of traditional games and local content, (3) basic project-based learning (PjBL), and (4) student-centered interaction (group discussion and presentations). These strategies were shaped by school conditions (infrastructure, community context) and teacher initiative.

**Digital media integration.** Even with limited resources, teachers creatively used simple technology to enhance lessons. For instance, at SDN 2 Kupang Teba, a fifth-grade science teacher used an educational video on “Changes in Material Forms” as an introductory hook. The video, shown via a single projector borrowed from the teacher’s lounge, depicted heating and cooling processes. After the screening, the teacher

prompted students with questions (“What happens to a candle when heated? Why does ice melt?”), sparking lively discussion. Observations showed that students were noticeably more engaged and asked more questions than in prior text-only lessons. Similarly, at SDN 1 Tanjung Gading, a second-grade teacher used an animated video titled “I Am a Disciplined Child” on a donated television to introduce character education. Students then retold the story and drew their favorite characters, which not only reinforced the moral content but also built literacy and creative expression. Teachers reported that the visual and auditory elements of videos made abstract or moral concepts more concrete, aligning with Mayer’s (2014) Cognitive Theory of Multimedia Learning. As one teacher noted, “Children grasp the lesson faster when they see colorful pictures and hear examples” (Interview, SDN 1).

These examples illustrate how even minimal technology can support more multimodal and engaging instruction. They confirm that visual media can bridge the gap between traditional texts and students’ daily experiences (Bezemer & Kress, 2016). Critically, teachers emphasized that it was *initiative and innovation*, not high-end equipment, that made this approach possible. In cases where internet or devices failed (e.g. rainy days with no signal), teachers quickly reverted to low-tech alternatives (posters, hand-drawn charts) to maintain interactivity, demonstrating resilience in resource-constrained settings.

**Integration of traditional games and local content.** Another adaptive trend was the deliberate inclusion of cultural elements in lessons. In semi-rural schools, where technology was scarce, teachers turned to familiar local games as tools for active learning. For example, a Class IV teacher at SDN 2 Kupang Teba incorporated gobak sodor (a traditional Indonesian chasing game) into a thematic lesson on “Working Together to Achieve Goals.” Students played in teams and then discussed the cooperation and

communication skills used in the game. The teacher then linked the experience to writing in Indonesian (students wrote about their play experience) and to Pancasila social studies (values of teamwork and tolerance). Similarly, in SDN 40 Katon, fourth graders engaged in a handicraft project using natural materials (coconut leaves, corn husks, seeds) under the theme “Unity in Diversity.” Each group created ornaments reflecting their local culture and then shared how their crafts represent Lampung traditions. Such activities grounded academic content in *students’ cultural lifeworlds*, an approach advocated by Ladson-Billings (1995) as culturally relevant pedagogy. The choice of *gobak sodor* as a learning tool in a thematic lesson on “*Working Together to Achieve Goals*” illustrates how teachers draw from local, culturally embedded knowledge to make abstract values concrete. Teachers reported that students responded enthusiastically to the game, and that it organically encouraged coordination, turn-taking, and communication all key components of collaborative problem-solving. While teachers may not explicitly cite Bandura’s social learning theory or Vygotsky’s socio-cultural perspective, their use of a familiar cooperative game aligns closely with these frameworks. *Gobak sodor* demands peer interaction, strategic planning, and shared objectives essentially modeling teamwork in action. Its physical and social demands mirror core 21st-century skills such as collaboration and perseverance, in ways that are both joyful and deeply rooted in the students’ lived experiences. This approach also represents a form of culturally responsive pedagogy. By validating students’ cultural practices within formal education, teachers foster a more inclusive and meaningful learning environment. The success of such lessons suggests that students engage more deeply when they can see their identities and local context reflected in the learning process. In the case of the video “*Anak Disiplin*,” teachers noted increased focus and comprehension among

students. The video format combining images, narrative, and sound activates multiple cognitive channels, aligning well with Mayer’s Cognitive Theory of Multimedia Learning, even if the teacher is unaware of the theory by name. According to Mayer, learning is enhanced when information is presented both visually and verbally because it reduces cognitive overload and helps create mental models. The theme of the video discipline was relatable and immediately relevant to classroom behavior expectations. Teachers reported that students imitated behaviors from the video or referenced scenes during classroom routines, suggesting the video was not only memorable but also internalized. In essence, the video functioned as a form of vicarious learning, allowing students to observe modeled behavior and its consequences, consistent with Bandura’s observational learning principles.

These culturally anchored strategies served multiple functions: they were low-cost and engaging, and they validated students’ identities. Teachers observed that students who are normally reticent became enthusiastic when lessons were connected to play or craft. As one educator explained, “When I use the games they already know, learning feels fun rather than work” (Interview, SDN 40). This supports the idea that contextual learning that is rooted in familiar experiences enhances motivation and understanding (Sanusi, 2018). By integrating local games and crafts, the teachers upheld Suparlan’s (2010) premise that education should preserve and utilize local culture.

**Project-based learning (PjBL).** Teachers also began using simple projects that link schoolwork to real-world contexts. In SDN 2 Kupang Teba, a fifth-grade science unit on the environment included a “Mini Vegetable Garden” **project**. Each student group planted vegetables (spinach, watercress, chili) in pots or recycled plastic bags around the schoolyard. They charted plant growth, journaled observations, and presented findings weekly. This project made the

science concept of plant growth tangible and simultaneously taught responsibility and collaboration. Support from the school community which comes from the principal and school committee provided seedlings and soil was crucial. At SDN 40 Katon, an equivalent PjBL activity involved creating cultural crafts, as described above.

These projects reflect key principles of PjBL by connecting learning to local resources and student agency (Campbell & Thompson, 2023). Teachers noted that such projects could be implemented with minimal cost and in short cycles, making them feasible even with heavy curricular demand (Jarrah, Girmay, & Ezezika, 2023). The approach aligns with constructivist theories: students actively construct knowledge through hands-on inquiry and social interaction (Vygotsky, 1978). It also echoes themes from Natalia et al. (2023), who found that project modules can boost creativity in primary learners. In practice, the Lampung teachers observed improvements in problem-solving skills and environmental awareness.

**Collaborative discussions and student presentations.** Finally many classrooms showed a shift toward more active and collaborative participation. Teachers introduced short group discussions and student-led presentations to break the one-way lecture pattern. In one Grade VI lesson at SDN 2 Kupang Teba, students worked in small groups to analyze causes of water pollution (a subtopic in the “Changing Environment” theme). Each group then presented their conclusions to the class. Teachers reported that this not only increased every student’s verbal participation but also helped quieter children contribute in a safer, small-group setting. The teachers viewed this as an important step toward student-centered learning, consistent with constructivist and cooperative learning principles.

Collectively, these adaptive strategies demonstrate that innovation in Lampung’s elementary schools is pragmatic and context-

driven. Rather than adopting global technologies or pedagogies wholesale, teachers are blending new elements into their existing repertoire. Thematic teaching and integrated curricula (Hasibuan et al., 2021) provided a flexible framework that facilitated this blending. By situating learning in students’ social and cultural contexts, teachers are enacting a form of contextualized pedagogy (Hidayatullah & Anshori, 2023), which our data suggest has strong potential to make traditional content more meaningful.

### **Digital Media and Cultural Integration**

The roles of digital media and local culture emerged as central, interrelated factors in the adaptation process. Digital resources, though used sparingly, proved powerful in capturing students’ attention and providing varied modes of input (Mayer, 2014). Teachers often deliberately chose multimodal texts (videos, audio, images) that aligned with lesson content. For instance, thematic videos in the local language (or animated to children’s level) were selected to convey scientific concepts and moral lessons. This use of media resonates with the multimodality studies in EFL classrooms, which emphasize connecting school texts to students’ lived experiences (Bezemer & Kress, 2016). In Lampung, the digital media served as a bridge between abstract curriculum and concrete understanding, making lessons more vivid and relatable.

Equally important was the conscious incorporation of local culture into teaching materials. The use of traditional games, stories, and community-based projects reflects an integrative approach where local cultural knowledge becomes both content and pedagogy. One interviewee highlighted how folklore and proverbs are used as reading materials to foster cultural pride while teaching language skills (Hidayatullah & Anshori, 2023). Another teacher described inviting a village elder to demonstrate

a traditional craft, thereby connecting social studies lessons to real-world heritage. These examples illustrate that cultural integration was not incidental but a deliberate strategy to make learning contextual.

The synergy of media and culture can also be seen in approaches like locally filmed educational videos or digital presentations of student-created folk art. By blending simple technology with indigenous content, teachers created a multimodal learning environment that supported diverse learning styles (visual, auditory, kinesthetic). This strategy aligns with Gagné's view that varied stimuli aid comprehension and retention, and with constructivist ideas that learners build knowledge from experiences. Internationally, culturally responsive pedagogy theory (Ladson-Billings, 1995) suggests that connecting school to home culture increases engagement and achievement; our findings in Lampung confirm this. Students were more enthusiastic and participatory when lessons reflected their identities and community life.

In sum, digital media and local culture served as complementary enablers of pedagogical transformation. Where technology resources were scarce, cultural resources filled the gap. Where cultural concepts might be abstract, technology helped visualize them. This adaptive blending underscores the broader trend that 21st-century learning in rural Indonesia is taking a hybrid form: it is neither purely traditional nor fully modern, but an evolving synthesis (Ramli & Nurlaili, 2022; Suryani & Sumarni, 2020).

### **Enablers of Transformation**

Several factors emerged as catalysts for change in the schools' teaching models. First and foremost, teacher enthusiasm and creativity played a pivotal role. Many interviewed teachers expressed a personal commitment to improving their practice. For example, a third-grade teacher explained, "I try making my own simple videos on my phone and play them for the children with

a small speaker. They focus more when there is an image" (Teacher, SDN 1). This anecdote illustrates how teacher agency can overcome resource gaps. Such innovation-oriented attitudes resonate with Fitriadi et al.'s (2024) finding that effective learning models often hinge on teacher initiative and training.

Community support was another enabler. In SDN 40 Katon, parents and the school committee actively contributed to classroom projects by providing materials for the craft project or helping maintain the vegetable garden. Teachers noted that when the community is involved, students take greater ownership of their learning and practical projects become feasible. This support is consistent with the idea of "community of practice" in schooling; parental buy-in legitimizes new methods (Fullan, 2007). The physical environment also mattered. SDN 2 Kupang's proximity to farmland allowed science projects to use real crops and soil, and even village communal spaces (posyandu, parks) were used for lessons. These natural resources enabled highly contextualized learning activities that would be impossible in an urban setting.

Policy context provided indirect support as well. Several teachers mentioned the national "Merdeka" (Freedom to Learn) curriculum encouraging thematic and project-based approaches. Even if implementation was uneven, the rhetorical shift towards 21st-century skills validated teachers' efforts. As Sirjon, Sukardjo, and Solihatin (2023) note, national curriculum reforms that emphasize creativity and critical thinking have become a driving factor in Indonesian classrooms.

### **Obstacles to Transformation**

Despite these enablers, the transformation faced significant barriers. The most prominent was infrastructure and technology constraints. Most schools had only basic equipment (e.g. one projector or TV) and unreliable electricity/internet. As one teacher lamented, "When it rains,

the signal is gone. Then we must prepare manual alternatives like posters or cardboard models” (Teacher, SDN 1). Such limitations often forced teachers to revert to paper-based materials or shortened technology use, which in turn limited the frequency and scope of innovations. Time pressure and workload were also obstacles. Teachers reported struggling to balance regular teaching duties and administrative tasks with the extra effort required to plan interactive lessons. This time crunch is a well-documented issue in educational change (Fullan, 2007). Some noted that during busy assessment periods, they had little bandwidth for projects or group activities, reverting instead to straightforward lectures.

Student and family factors created another challenge. Not all students participated equally in active learning; some children from less supportive homes were less prepared for self-directed tasks, requiring more scaffolding. Moreover, a few parents held traditional views on schooling, believing that learning should remain formal and silent. When teachers introduced games or projects, some parents questioned the seriousness: “Is it learning if they are just playing?” (Parent, SDN 2). Overcoming such entrenched perceptions requires ongoing community education and efforts to build trust. Despite teacher enthusiasm, many reported insufficient training and peer support in new methods. Teachers experience a dilemma between pedagogical ideals and systemic realities. A dense curriculum and exam-focused assessment systems often prompt teachers to adopt time-efficient yet shallow instructional methods. However, the teachers in this study responded creatively by embedding projects into thematic learning aligned with basic competencies and integrating academic assessment into project processes (such as reports, presentations, or reflective writing). As students are asked to speak more, express opinions, and present their work, this potentially clashes with local cultural norms in Lampung, which emphasize *respectful speech*,

*age hierarchy*, and *conflict avoidance*. Teachers reported that some students were initially hesitant to speak up or disagree with peers. However, when learning took place in small groups and utilized collaborative approaches, students gradually felt safer and more confident in expressing themselves. Parental comments offer a valuable entry point for understanding cultural resistance or skepticism toward pedagogical innovations. Rather than viewing this as a constraint, educators and policymakers can treat it as an opportunity to build public understanding of meaningful learning. Activities like open classes, project exhibitions, or parent-teacher dialogues can help clarify that play, discussion, and project work are not distractions from learning but part of deeper, contextualized educational experiences.

This suggests that local cultural values need not be barriers; rather, they can be negotiated and transformed in inclusive classroom spaces. Teachers play a critical role in mediating between contemporary pedagogical practices and cultural norms through context-sensitive communication. For instance, a project like making a poster about energy conservation or a class performance on teamwork was not only designed to build 21st-century skills but also to address curriculum indicators and formative assessments. This reflects a process of *professional negotiation*, where teachers creatively bridge progressive approaches with structural expectations.

In rural schools especially, there were few opportunities for teachers to observe peers implementing PBL or to share resources (Servant-Miklos, V. 2020).. This lack of professional learning networks made the innovation process slower and more isolated. These barriers resonate with broader literature on educational change. Fullan (2007) emphasizes that without systemic support (infrastructure, time, training), individual teacher efforts can only go so far. The present study’s findings confirm that both resource availability and socio-cultural attitudes must be

addressed for transformation to be sustained (Sirjon et al., 2023; Mariana et al., 2022).

### **Theoretical Interpretation**

The patterns observed in Lampung's schools can be interpreted through constructivist and cultural learning frameworks. Constructivism posits that learners construct knowledge most effectively through active engagement (Piaget, 1972; Vygotsky, 1978). The adaptive strategies, such as hands-on experiments, discussions, and projects, align with this view and suggest a gradual shift from rote transmission to knowledge construction. For example, when students research and present on environmental issues, they are actively constructing understanding rather than merely absorbing facts.

Cultural integration theory emphasizes that learning is most effective when connected to students' cultural context (Ladson-Billings, 1995; Suparlan, 2010). In Lampung, embedding local games, folklore, and community resources into lessons exemplifies culturally responsive pedagogy. This approach not only makes learning more engaging but also preserves students' cultural identities (Suparlan, 2010; Hidayatullah & Anshori, 2023). By valuing local knowledge (e.g. agricultural practices, dialect, customs) alongside national curriculum content, teachers are enacting a form of cultural integration that supports constructivist learning: students link new information to familiar schemas. The observed transformation in Lampung aligns with these frameworks: as teachers adopt discussion and project work, they cultivate critical thinking and communication. However, the continued gaps underscore that systemic support (training, infrastructure) remains crucial to realize these pedagogical goals fully.

### **Research Questions Revisited**

These findings directly address the study's research questions. (1) *What traditional learning models are still applied?* The answer

is that teacher-centered lecture and drill-based instruction remain widespread. They appear mainly in subjects like math and language, where teachers emphasize accuracy and discipline. However, even here, there are signs of change, as some teachers mix in discussion or visualization. (2) *What factors enable or hinder transformation?* We identified enthusiastic teachers, community support, and resourceful use of the environment as key enablers, whereas limited technology, time constraints, uneven student readiness, and conservative mindsets served as obstacles. (3) *What adaptations do teachers implement?* The adaptations include the use of simple digital media, integration of games and local culture, project-based tasks, and enhanced student participation through group work. Each of these adaptation strategies emerged directly from teacher interview data and illustrates how schools are attempting to balance traditional norms with new demands.

These empirical answers resonate with and extend existing theories. For example, the persistence of traditional methods validates studies noting the slow pace of pedagogical change in Indonesian primary education (Joyce & Weil, 2015; Ramli & Nurlaili, 2022). Conversely, the creative adaptations support arguments by scholars like Campbell and Thompson (2023) and Fitriadi et al. (2024) that project-based and multimedia methods can flourish even in modestly resourced settings when teachers are motivated.

### **Implications**

The broader implications of these findings are twofold. Practically, they suggest that policy and professional development in Lampung (and similar contexts) should leverage the positive forces already at work. Teacher training should not only focus on general pedagogical theory. What is needed are practical, low-cost, and context-based training modules. One recommended module is "Integrating Local



Games into Learning Tools”, to help teachers map the potential of traditional games (such as gobak sodor, engklek, and congklak) as instruments for thematic learning (e.g., Mathematics, Indonesian Language, and Civics Education). Activities in this module may include a workshop on analyzing basic competencies, identifying educational elements within local games, designing thematic lesson plans that incorporate traditional games, and conducting microteaching sessions to simulate game-based instruction.

Training programs could focus on low-cost, culturally contextualized instructional design, equipping teachers with skills to create their media and integrate local content (Fitriadi et al., 2024). Strengthening community school partnerships could amplify the existing support of parents and committees in providing materials and local knowledge. Infrastructure improvements (electricity, internet) are also needed, but can be prioritized based on schools’ initiatives (El-Hamamsy et al., 2023). The study reinforces the value of constructivist and culturally responsive frameworks in understanding educational change. It illustrates that even in rural primary settings, students can engage in active, meaningful learning when teachers make lessons relevant to their context (Hidayatullah & Anshori, 2023). This challenges any notion that traditional cultures are inherently resistant to innovation; on the contrary, it shows that “culture” can be an asset in pedagogical transformation.

## ■ CONCLUSION

This study concludes that the transformation of traditional learning models in elementary schools in Lampung is occurring through a gradual and context-sensitive adaptation process. While conventional teacher-centered methods remain prevalent, there is growing momentum toward more student-centered and culturally relevant practices. The findings affirm that transformation does not require a complete abandonment of traditional pedagogy but rather a thoughtful

reconfiguration that integrates simple digital media, local cultural values, and project-based learning. Teachers are beginning to act as adaptive agents by designing learning experiences that are more interactive, contextual, and meaningful, even in environments with limited resources.

The study also reveals that educational change is most effective when it acknowledges and leverages the local socio-cultural context. Rather than positioning local culture as a barrier, this research illustrates its potential as a pedagogical asset. By incorporating traditional games, stories, and crafts into lessons, teachers not only preserve cultural identity but also enhance student engagement and understanding. These innovations signal a shift in practice that aligns with global educational goals while remaining deeply rooted in local realities (Rostami, Soleimani, & Haque, 2024).

In light of these findings, the research contributes to the growing discourse on culturally responsive and constructivist pedagogies in the development of educational systems. It demonstrates that meaningful transformation in basic education can emerge from the ground up when teachers are empowered with both creative autonomy and community support. As an implication, future professional development programs should focus not only on technological proficiency but also on strengthening teachers’ capacity to design learning that reflects both curriculum standards and cultural authenticity. Additionally, education policies must recognize and support the hybrid nature of pedagogical transformation, especially in rural or semi-urban contexts where innovation is often shaped by necessity and local ingenuity. This research invites further investigation into how such models can be scaled and sustained across diverse educational landscapes.

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