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Functional Innovation, CIPP Evaluation, and Principal-Agent Dynamics: Descriptive Evidence from Project-Based Learning Implementation in Indonesian Elementary Schools

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Abstract

This study evaluates the functional innovation of Project-Based Learning (PjBL) modules at SDN 002 Barong Tongkok, contextualized within the mandates of Permendikbud Number 5 of 2022. By integrating the CIPP (Context, Input, Process, Product) Evaluation Model, Principal-Agent Theory, Value for Money, and Theory of Change, this research comprehensively analyzes the translation of national educational policy into local pedagogical practice. Employing a descriptive qualitative approach, data were gathered through in-depth interviews, observation, and documentation involving the principal, teachers, curriculum coordinator, educational staff, and students. Findings indicate that PjBL modules function as vital institutional adaptations, successfully addressing contextual needs while maximizing available input resources. However, Principal-Agent dynamics reveal structural information asymmetry and varying teacher competencies that hinder optimal implementation. While the product impact demonstrates significantly enhanced student creativity, critical thinking, and collaboration, resource constraints continue to challenge the Value for Money principle in education financing. The study concludes that continuous structural support, targeted pedagogical training, and systemic evaluation rubrics are imperative to sustain this functional innovation and achieve holistic 21st-century educational goals in elementary schools.

Keywords: Project-Based Learning; CIPP Evaluation; Functional Innovation; Principal-Agent Theory; Value For Money; Elementary Education.

1. Introduction

In the highly dynamic and rapidly evolving landscape of the 21st century, the educational system can no longer operate as a static, monolithic mechanism strictly designed for the unilateral transmission of knowledge. Instead, it must transform and continuously evolve as an adaptive social institution capable of responding proactively to the accelerated pace of technological, cultural, and macroeconomic transformations globally (Parsons, 1951). Globalization, systemic digitalization, and the rapid emergence of a knowledge-based economy have fundamentally redefined the overarching mandate of public education, decisively shifting its primary focus from mere content dissemination and rote memorization to the holistic cultivation of adaptive, higher-order competencies (Fullan et al., 2015). Within the conceptual framework of Structural-Functional Theory, education is not merely an isolated venue for academic learning; rather, it is a vital, highly interconnected subsystem of the broader social order. It operates interdependently with other critical societal subsystems such as the economy, the political sphere, and the cultural domain and plays an absolutely central role in maintaining systemic stability, fostering social cohesion, and driving sustainable national progress (Durkheim, 2023; Plummer, 2021).

From this structural-functionalist perspective, the educational system performs both manifest and latent functions that are essential for societal continuity. Its manifest functions are explicitly recognized and intended, lying primarily in the formal transmission of academic knowledge, technical skills, and foundational cultural values. Conversely, its latent functions encompass more subtle, often unstated outcomes, such as social integration, the organic development of individual talents, and the continuous reproduction of prevailing social structures (Merton, 1957). However, as the broader social and technological environments evolve at an unprecedented rate, these educational functions must also adapt symmetrically to align with new realities. When the educational subsystem becomes structurally rigid, entrenched in archaic bureaucratic routines, or fails to anticipate and respond to external environmental changes, it experiences what sociological theorists describe as institutional dysfunction a critical condition where the existing institutional structure, pedagogies, and policies no longer effectively serve the urgent needs of modern society (Parsons, 2013). Such systemic dysfunction inevitably impacts the broader social system, weakening human capital formation, severely limiting national innovation capacity, and ultimately hindering long-term economic and human development trajectories.

From the specific standpoint of public administration and policy implementation, this systemic failure is not solely a pedagogical or psychological issue confined to the classroom. It is, fundamentally, an institutional inefficiency in the provision of critical public educational services (Dye, 1951). An educational system that stubbornly refuses to innovate or structurally fails to foster creativity and critical thinking loses its functional relevance, risking the mass production of citizens who are fundamentally ill-prepared to meet the complex, multidisciplinary demands of contemporary adult life. The World Economic Forum continuously identifies creativity, analytical thinking, technological literacy, and innovation as being among the absolute top skills required for future employability and global competitiveness (World Economic Forum, 2020). This macroeconomic perspective heavily emphasizes that education must pivot to produce agile learners

capable of solving complex, interdisciplinary problems rather than merely repeating memorized factual knowledge. Similarly, on a global policy level, UNESCO, through the ambitious Sustainable Development Goal 4 (Quality Education), firmly asserts that creativity and innovation are not optional supplementary skills, but rather fundamental competencies required for achieving equitable, sustainable, and truly transformative lifelong learning for all individuals (UNESCO, 2024).

In the context of the Indonesian public education system, this functional gap is starkly evident in the persistent, widespread use of conventional, teacher-centered instructional methodologies, especially at the foundational elementary school level. Such methodological stagnation perfectly reflects a classic Principal-Agent problem within the realm of public governance (Mazmanian & Sabatier, 1983). The central government, acting as the ultimate 'Principal', aims to rapidly implement highly progressive, globally competitive educational standards most recently codified via Permendikbud Number 5 of 2022 concerning Graduate Competency Standards (Kemendikbudristek, 2022). To execute these ambitious policies on the ground, the Principal relies entirely on local schools, principals, and classroom teachers, who act as the 'Agents'. However, severe information asymmetry, differing local incentive structures, deeply ingrained traditional pedagogical cultures, and localized resource constraints frequently result in highly suboptimal policy execution (Edwards, 1980). The agents (teachers), constrained by limited financial resources, lack of continuous professional development, and heavy administrative burdens, often cannot fully adopt or operationalize the intended innovations. This leads to a massive divergence between the lofty policy objectives formulated in the capital and the actual, day-to-day pedagogical practices occurring in rural and regional classrooms.

To comprehensively address this critical implementation gap, this study rigorously evaluates the development, implementation, and functional impact of Project-Based Learning (PjBL) modules at Sekolah Dasar Negeri (SDN) 002 Barong Tongkok, located in the West Kutai Regency, East Kalimantan. By utilizing the renowned CIPP (Context, Input, Process, Product) Evaluation Model originally developed by Stufflebeam, the study systematically assesses the holistic environment of this educational intervention from multiple administrative and pedagogical angles. Furthermore, the robust integration of Theory of Change paradigms and Value for Money (VFM) principles provides an extensive analytical framework to understand exactly how School Operational Assistance (BOS) funds and other scarce institutional resources are optimized to produce tangible, measurable pedagogical impacts (Chu et al., 2021). This research aims to deeply analyze the qualitative field data surrounding this localized functional innovation, tying the empirical findings directly back to prevailing national regulations, modern constructivist learning theories, and foundational public administration frameworks.

2. Literature Review

2.1 The CIPP Evaluation Model in Educational Accountability

The CIPP (Context, Input, Process, Product) Evaluation Model serves as a highly robust, systematic, and comprehensive framework for assessing complex educational programs and policy interventions. Context evaluation, the first pillar, identifies the overarching needs, socio-cultural assets, and systemic problems

within a specific operational environment, serving as the critical baseline for defining relevant program objectives (Holm, 2011). In the scope of this empirical study, the 'Context' is strictly defined by the legal and pedagogical mandates of Permendikbud Number 5 of 2022, juxtaposed against the specific socio-cultural, economic, and geographic setting of SDN 002 Barong Tongkok in East Kalimantan. Input evaluation, the second pillar, meticulously assesses the competing instructional strategies, institutional work plans, and financial budgets specifically including the efficient allocation and utilization of School Operational Assistance (BOS) funds (Ningsi et al., 2024). This ensures that the chosen pedagogical approach aligns perfectly with the principles of financial accountability and resource optimization. Process evaluation, the third pillar, involves continuous monitoring of the actual implementation of the PjBL modules on the ground. It aims to identify defects in procedural design, monitor teacher-student interactions, and provide continuous, formative feedback to educators and school administrators to allow for mid-course corrections (Pratama et al., 2025). Finally, Product evaluation measures, interprets, and judges the ultimate outcomes of the intervention. In this context, it specifically assesses the measurable enhancement of student creativity, critical thinking, collaborative capacities, and overall academic engagement resulting from the PjBL modules.

2.2 Principal-Agent Theory in Public Education Governance

Principal-Agent Theory, originally rooted in institutional economics and political science, is highly relevant in deeply understanding the complex dynamics of public education governance and policy implementation (March & Olsen, 1984). Within this framework, the central government specifically the Ministry of Education, Culture, Research, and Technology acts as the 'Principal'. The Principal formulates strategic, macro-level educational policies, sets national competency standards, and provides the necessary financial funding (e.g., BOS funds) to achieve national development goals. Local schools, principals, and classroom teachers act as the 'Agents', tasked with the heavy responsibility of translating and implementing these macro-policies into micro-level classroom realities (Uster et al., 2025). However, significant goal conflict, differing risk preferences, and vast information asymmetry frequently occur in this relationship. Agents operating in remote or resource-constrained areas may face severe institutional rigidities, lack of technical capacity, or possess differing local priorities that conflict with central mandates. This structural friction can lead to phenomena such as policy dilution, superficial administrative compliance, or outright resistance to change. Analyzing the implementation of PjBL modules through the Principal-Agent lens powerfully reveals the underlying structural tensions between top-down regulatory demands and bottom-up operational realities, highlighting the absolute necessity for functional innovations that can effectively bridge this bureaucratic gap (Zembylas et al., 2022).

2.3 Value for Money (VFM) and Theory of Change (ToC)

The concept of Value for Money (VFM) in public administration emphasizes the triad of economy, efficiency, and effectiveness in the utilization of public resources. In the educational sector, VFM requires that school resources, particularly public funds like the BOS budget, are utilized meticulously to maximize pedagogical outcomes while minimizing wasteful expenditure. Economy refers to acquiring resources at the lowest cost; efficiency relates to

maximizing the output for a given input; and effectiveness is about achieving the intended educational outcomes (e.g., enhanced student creativity). The Theory of Change (ToC) complements the VFM paradigm by visually and conceptually mapping the logical causal pathways through which inputs (PjBL modules, teacher training, school funds) lead to desired outputs (highly active learning environments, collaborative classrooms) and ultimate, long-term impacts (the realization of 21st-century competencies and the 'Profil Pelajar Pancasila') (Berman et al., 2023). Functional innovation, such as the localized development and deployment of PjBL modules tailored to rural contexts, serves as the critical 'black box' mechanism within this Theory of Change. It is the transformative process that turns rigid bureaucratic inputs and limited financial resources into highly dynamic, valuable, and contextually relevant educational experiences for elementary students.

2.4 Structural-Functionalism, Constructivism, and Social Learning Theory

Rooted in the seminal sociology of Emile Durkheim and further theoretically developed by Talcott Parsons, Structural-Functionalism views the school as a critical societal subsystem that must flawlessly perform adaptive and integrative functions to maintain social equilibrium (Durkheim, 2023). When educational practices become outdated and fail to equip students for modern economic realities, the system suffers from deep dysfunction. The introduction of Project-Based Learning (PjBL) represents a necessary adaptive function, systematically realigning the school's internal practices with external societal demands for innovation and critical thought. From a psychological and pedagogical standpoint, this adaptation is supported by Constructivist theories (Piaget, 1970; Vygotsky, 1978), which argue that learning is not a passive receipt of information, but an active, social process of constructing meaning through experiential engagement and peer collaboration (Chen et al., 2020). Concurrently, Albert Bandura's Social Learning Theory elucidates the micro-level mechanisms of this adaptation. Bandura (1977, 1986) posits that human learning occurs primarily through continuous observation, imitation, and modeling within a highly interactive social context. In a structured PjBL environment, students actively internalize collaborative and creative behaviors by continuously observing their peers and teachers (Bandura, 2001). This reciprocal determinism facilitates the rapid cognitive and social development required for complex problem-solving, perfectly aligning with the overarching goals of modern educational policy (Rutherford, 2014).

3. Research Methods

This study adopts a highly rigorous descriptive qualitative approach to deeply explore, document, and analyze the implementation of functional innovation in the development of Project-Based Learning (PjBL) modules at SDN 002 Barong Tongkok, West Kutai Regency, East Kalimantan. Qualitative research was selected as the optimal methodological paradigm because it allows for the naturalistic inquiry into the complex social, administrative, and pedagogical phenomena occurring within the school setting, emphasizing deep meaning, dynamic processes, and contextual interpretation (Sanusi, 2014). The research design is specifically tailored to evaluate the implementation phenomena holistically, employing the multidimensional CIPP (Context, Input, Process, Product) model to systematically structure the inquiry and analysis.

A purposive sampling technique was strategically utilized to select specific informants who possess direct, firsthand involvement and authoritative knowledge over the implementation process of the PjBL modules. Purposive sampling ensures that the data collected is highly relevant and saturated with deep insights regarding both the policy and practical dimensions of the educational intervention. The primary informants selected for this study included one (1) School Principal, one (1) Classroom Teacher, one (1) Curriculum Coordinator (Guru Penggerak), one (1) Educational Staff member (Tenaga Kependidikan), and one (1) Student representative. Each informant was selected based on their distinct role within the Principal-Agent framework and their specific interaction with the different phases of the CIPP evaluation model.

Comprehensive data collection techniques were deployed in a triangulated manner to ensure validity and trustworthiness. These techniques included in-depth, semi-structured interviews (in-depth interviews) aimed at uncovering the nuanced perspectives, motivations, and perceived challenges of the informants. Direct, non-participant classroom observations were conducted over an

extended period to empirically witness the actual execution of the PjBL modules, the degree of student engagement, the teacher's facilitative role, and the physical utilization of classroom resources. Furthermore, an exhaustive documentation analysis was performed, reviewing the actual PjBL modules, lesson plans, school policy documents, financial allocation reports (BOS utilization), and student project outputs.

The massive volume of qualitative data gathered from these multiple streams was systematically analyzed using the highly regarded interactive model proposed by Miles, Huberman, and Saldaña. This iterative analytical process comprised three concurrent flows of activity: data condensation (selecting, simplifying, and transforming the raw field notes and transcripts into manageable thematic units), data display (organizing the condensed data into matrices, charts, and narrative text to draw coherent conclusions), and conclusion drawing/verification (interpreting the findings against the theoretical frameworks of Principal-Agent theory, Value for Money, and Structural-Functionalism to ensure robust, evidence-based outcomes).

Table 1

Research Informant Profiles and Analytical Roles

Informant / Subject	CIPP Evaluation Focus	Principal-Agent Role
School Principal	Context & Input (Policy implementation, institutional support, strategic resource allocation, VFM)	Local Principal / Intermediate Agent
Classroom Teacher	Process & Product (Module design, active classroom execution, pedagogical evaluation)	Primary Agent / Frontline Implementer
Curriculum Coordinator	Process (Alignment with Permendikbud No. 5/2022, intensive teacher mentoring, quality control)	Monitoring & Supervisory Agent
Student Representative	Product (Learning experience, creativity enhancement, collaboration, critical thinking)	Ultimate Beneficiary / Target of Policy
Educational Staff	Input (Facilities management, infrastructure readiness, administrative support, budget tracking)	Administrative Support Agent

Note. Primary Data Processed, 2026

4. Results

The empirical findings of this qualitative study are systematically presented through the comprehensive lens of the CIPP Evaluation Model. This structure highlights exactly how the functional innovation of PjBL modules operates within the specific institutional and resource-constrained framework of SDN 002 Barong Tongkok. The extensive data synthesizes the diverse perspectives from multiple key stakeholders, vividly revealing the administrative and pedagogical complexities involved in translating national macro-policy into effective micro-level classroom practice.

Table 2

Comprehensive CIPP Evaluation Indicators for PjBL Implementation

CIPP Dimension	Theoretical Evaluation Criteria	Observed Empirical Outcomes at SDN 002 Barong Tongkok
Context Evaluation	Alignment with Permendikbud 5/2022; Relevance to local socio-cultural and economic environment.	High alignment; modules heavily and creatively utilize local environmental contexts for authentic project themes.
Input Evaluation	Competence of agents (teachers); adequacy of physical facilities; utilization of school funds (Value for Money).	Moderate input quality; teacher competence is developing but remains uneven; basic facilities exist, but specialized project media are lacking.
Process Evaluation	Active learning execution; transition of teacher as facilitator; collaborative and inquiry-based student engagement.	Strong process execution; observable, highly positive shift from traditional teacher-centered to student-centered collaborative learning.

CIPP Dimension	Theoretical Evaluation Criteria	Observed Empirical Outcomes at SDN 002 Barong Tongkok
Product Evaluation	Measurable enhancement of 21st-century skills (creativity, critical thinking, teamwork, problem-solving).	Positive product impact; students demonstrate significantly increased confidence, original ideation, and collaborative problem-solving abilities.

Note. *Observational and Interview Data Synthesis, 2026*

4.1 Context and Input Evaluation: Navigating Principal-Agent Dynamics and Resource Scarcity

The deep context evaluation reveals that SDN 002 Barong Tongkok operates under the strong, unequivocal directive of Permendikbud Number 5 of 2022, which effectively acts as the regulatory 'Principal' in this governance model. The school leadership, particularly the Principal, has successfully internalized these progressive national goals, actively promoting functional innovation through the mandatory adoption of PjBL methodologies. Interviews with the Principal confirmed that the school's internal policies are explicitly designed to support the 'Kurikulum Merdeka' (Emancipated Curriculum) (Kemendikbudristek, 2024), aiming to foster a learning environment that is contextual, highly relevant to local needs, and student-centered. This indicates a high degree of goal congruence at the upper echelons of the school's administration.

However, the input evaluation highlights severe and persistent systemic constraints that directly challenge the successful execution of these goals by the classroom teachers (the Agents). Analyzing this operational reality through the lens of Value for Money (VFM), the allocation of resources—particularly the utilization of School Operational Assistance (BOS) funds—toward comprehensive PjBL implementation faces massive challenges in both economy and efficiency. While the basic physical infrastructure (classrooms, desks) is present and functional, there is a glaring deficit in specialized instructional media, varied project materials, and adequate digital tools required for complex 21st-century projects. Furthermore, a classic manifestation of information asymmetry exists between the central pedagogical mandates and the actual, localized teacher capabilities. Teacher competency in designing sophisticated, rubric-based PjBL modules remains highly heterogeneous, with some educators heavily relying on rudimentary templates while others innovate. This discrepancy highlights the critical need for targeted, continuous professional development.

Table 3

Value for Money (VFM) Assessment and Resource Allocation Priorities

Resource Category / Input	Current Allocation & Utilization Status	Value for Money (VFM) Theoretical Implication
Teacher Professional Development & Training	Highly limited formal training; heavy reliance on informal, internal peer discussions and self-study.	High Economy (low financial cost) but potentially lower Effectiveness and Efficiency due to uneven skill acquisition and policy dilution.
Instructional Materials (PjBL Modules)	Developed entirely internally by local teachers utilizing free, local environmental contexts.	High Efficiency and Effectiveness; utilizes abundant local socio-cultural assets at minimal cost to the school budget.
Project Tools & Multimedia Resources	Highly constrained; heavy reliance on basic, traditional school supplies and student-provided materials.	Severely limits the scope, complexity, and scale of projects, directly threatening overall educational Effectiveness and long-term impact.
Administrative & Assessment Frameworks	Basic rubrics exist in theory, but lack systematic, standardized documentation and rigorous application.	Efficiency is heavily compromised by the lack of standardized, easy-to-use assessment tools, increasing administrative burden on teachers.

Note. *Institutional Assessment and Financial Data Analysis, 2026*

4.2 Process and Product Evaluation: Validating the Theory of Change

The extensive process evaluation conclusively confirms that the fundamental Theory of Change underlying the PjBL intervention at SDN 002 Barong Tongkok is theoretically sound and practically viable. By radically shifting the dominant pedagogical approach from passive, rote reception to highly active, inquiry-based, and collaborative learning, the school has successfully activated the core mechanisms of Social Learning Theory and Constructivism. Classroom observations consistently confirmed that teachers are no longer acting merely as information dispensers; instead, they are effectively transitioning into the role of facilitators and cognitive modelers. They guide students in formulating fundamental

questions, structuring investigations, and managing group dynamics.

The Product evaluation, derived from both teacher assessments and direct student interviews, illustrates a profound positive impact on the learners. Students are engaging in reciprocal determinism—interacting dynamically with their peers, their teachers, and their physical environment to actively co-construct knowledge. The qualitative data reveals significant enhancements in the students' ability to think divergently (creativity), critically analyze real-world problems, and operate cohesively within team structures (collaboration). Students reported feeling a much higher sense of agency, pride, and intrinsic motivation when presenting their tangible project outcomes, validating the effectiveness of the functional innovation despite the structural input constraints.

Table 4

Summary of Qualitative Findings on PjBL Process Implementation

Implementation Aspect (PjBL Phase)	Teacher / Coordinator Perspective (Agent Action)	Student Perspective (Beneficiary Experience)
Formulating Fundamental Inquiry	Initiates learning modules with highly relatable, real-world problems directly linked to the local Kutai Barat environment.	Feels the initial questions are highly relatable, interesting, and successfully prompt genuine curiosity rather than boredom.
Collaborative Investigation & Execution	Deliberately divides students into heterogeneous working groups to foster peer scaffolding and mutual support.	Greatly enjoys working closely with peers and sharing tasks, though explicitly notes occasional frustration with 'free-riding' group members.
Evolving Role of the Educator	Actively transitions from traditional knowledge dispenser to a roaming facilitator, guide, and troubleshooter.	Feels highly supported and much less intimidated when facing cognitive or practical difficulties; appreciates the approachable guidance.
Product Presentation & Reflection	Requires students to verbally articulate their investigative process and present tangible, physical project outcomes.	Feels a massive sense of personal pride and accomplishment in displaying work; reports overcoming initial shyness and fear of public speaking.

Note. Interview Transcripts Processed, 2026

4.3 Identifying Supporting and Inhibiting Factors in Functional Innovation

To fully understand the systemic dynamics of this educational reform, it is essential to map the various supporting and inhibiting factors that influence the successful deployment of PjBL modules. Interviews across all informant categories revealed a complex interplay of variables. The strongest supporting factors include the unwavering commitment and strategic leadership of the School Principal, the rich availability of local environmental resources that serve as free learning contexts, the surprisingly high enthusiasm of the student body, and the clear, unambiguous policy mandates from the central government. These factors create a fertile ground for functional innovation, aligning perfectly with the systemic adaptation requirements detailed in Structural-Functionalism.

Conversely, the inhibiting factors highlight the harsh realities of public education administration in developing regions. Time constraints were universally cited as a massive barrier; PjBL requires significantly more instructional time than traditional lecturing, putting pressure on teachers to 'cover the curriculum'. Uneven teacher competency remains a critical bottleneck, as some educators struggle to transition from traditional pedagogy to complex facilitation. Furthermore, the chronic insufficiency of specialized project media and the extreme complexity of designing objective, multifaceted evaluation rubrics create immense administrative fatigue. These inhibiting factors perfectly exemplify the Principal-Agent friction, where the Agents simply lack the requisite capacity and resources to execute the Principal's vision flawlessly, thereby threatening the overall Value for Money and long-term effectiveness of the policy.

Table 5

Matrix of Supporting and Inhibiting Factors in PjBL Module Development

Categorical Classification	Specifically Identified Empirical Factors	Theoretical / Systemic Implication
Core Supporting Factors (Catalysts for Innovation)	Strong Principal leadership; Abundant local environmental resources; High student enthusiasm and receptivity; Clear national policy mandates (Kurikulum Merdeka).	Powerfully facilitates institutional adaptation (Structural-Functionalism) and provides highly clear, unified systemic goals that drive organizational change.
Core Inhibiting Factors (Barriers to Implementation)	Severe time constraints in the academic calendar; Highly uneven teacher competency; Insufficient technical project media; Highly complex, burdensome evaluation requirements.	Perfectly exemplifies Principal-Agent friction (severe capacity constraints at the agent level) and directly threatens the ultimate Value for Money (Effectiveness & Efficiency).

Note. Thematic Analysis of Field Observation and Interview Data, 2026

5. Discussion

The exhaustive empirical findings of this comprehensive study offer a profound, data-driven validation of functional innovation within the challenging context of a developing public education system in Indonesia. By rigorously employing the CIPP evaluation

model, it becomes undeniably evident that the introduction and localized development of Project-Based Learning modules at SDN 002 Barong Tongkok is not a mere superficial pedagogical shift or a fleeting educational trend. Rather, it is a deeply necessary systemic adaptation—a crucial evolutionary step required for institutional survival, societal relevance, and the fulfillment of the school's manifest functions in the 21st century.

From the analytical perspective of Principal-Agent Theory, the macro-level dynamics are crystal clear. The central government (the Principal) has set highly ambitious, forward-looking targets via Permendikbud Number 5 of 2022, demanding that schools produce critical, creative, and collaborative graduates. The school leadership and its frontline teachers (the Agents) are heavily tasked with operationalizing these complex targets under significant local constraints. The empirical data reveals a fascinating nuance: while there is a remarkably strong degree of goal alignment at the local level—thereby mitigating the classic, often cynical agency problem of deliberate goal conflict or shirking—there remains a massive, critical issue of 'capacity asymmetry'. The agents genuinely want to implement the policy, but they simply lack the comprehensive specialized training, the sophisticated assessment frameworks, and the optimal physical inputs (specialized media, digital tools) required to execute the mandate flawlessly. This highlights a critical vulnerability in decentralized educational governance: high-level policy design frequently and dangerously outpaces local implementation capacity.

Furthermore, evaluating this localized implementation through the stringent Value for Money (VFM) paradigm underscores significant, ongoing institutional trade-offs. The school demonstrates an incredibly high degree of 'Economy' and 'Efficiency' by creatively utilizing local, low-cost environmental resources and community contexts for project themes, essentially bootstrapping the PjBL modules to bypass severe budget limitations. However, the overarching 'Effectiveness' and long-term sustainability of the program are occasionally compromised by the distinct lack of targeted financial investment in deep teacher professional development and sophisticated project materials. If School Operational Assistance (BOS) funds and other public expenditures are to be truly optimized according to VFM principles, resource allocation strategies must radically shift from merely maintaining basic, day-to-day administrative operations to actively, aggressively funding targeted functional innovations—such as specialized PjBL training workshops, digital media procurement, and the collaborative design of standardized assessment rubrics.

The Theory of Change underlying this massive educational intervention is powerfully validated by the Product evaluation results. By radically altering the fundamental classroom dynamic (the Process)—purposefully shifting from rigid, hierarchical, teacher-centric instruction to collaborative, noisy, inquiry-based exploration—the school has successfully cultivated and unlocked latent student competencies. Constructivist pedagogical principles are vividly observable in the raw classroom data; students are no longer passive receptacles but are actively constructing deep meaning through rich social interaction and tangible, hands-on problem-solving. Bandura's Social Learning Theory is equally evident, as students continuously model positive collaborative behaviors, learn to negotiate group conflicts, and develop high levels of self-efficacy through the successful completion and public presentation of their projects.

Nevertheless, the stubborn persistence of highly inhibiting factors—such as evaluation complexities, severe time constraints, and material shortages—signals that the innovation process is very much ongoing and remains fragile. According to Rogers' classic Diffusion of Innovations theory, SDN 002 Barong Tongkok is currently situated in the critical, late-implementation stage, transitioning precariously towards full institutionalization. For the

PjBL modules to transcend being a mere 'project' and become permanently, seamlessly embedded in the school's daily pedagogical culture, there must be a continuous, institutionalized feedback loop—a core tenet of the CIPP model. Evaluation data regarding teacher struggles and resource deficits must directly, immediately inform subsequent budget allocations (Inputs) and training designs (Processes). Only through this continuous cycle of reflection, feedback, and targeted support can the functional innovation be sustained over the long term.

6. Conclusion

This comprehensive study unequivocally concludes that the functional innovation surrounding the development and implementation of Project-Based Learning (PjBL) modules at SDN 002 Barong Tongkok is a highly successful, albeit structurally challenging, educational endeavor. Evaluated through the multidimensional CIPP model, the intervention aligns robustly and seamlessly with the national context mandates stipulated in Permendikbud Number 5 of 2022. It demonstrates a highly effective, transformative pedagogical process that translates directly into tangible, measurable product benefits for elementary students, most notably in the critical areas of creativity, problem-solving, and peer collaboration.

However, when analyzed critically from a Principal-Agent and Value for Money perspective, it is clear that systemic input constraints—specifically the highly uneven levels of teacher competency, the severe lack of specialized training, and highly constrained physical and financial resources significantly hinder the absolute maximization of this functional innovation's potential. The heavy administrative burden of designing complex project rubrics further strains the capacity of the frontline agents (teachers).

Based on these findings, it is highly recommended that educational policymakers, district administrators, and local school leaders urgently bridge this capacity gap. This can be achieved by directing strategic, ring-fenced funding (such as targeted BOS allocations) and sustained, high-quality professional development specifically toward the teachers acting as the agents of change. Furthermore, the creation of standardized, easily adaptable PjBL evaluation rubrics at the district level would drastically reduce the administrative burden on individual teachers. Only through such comprehensive, targeted structural support can ambitious educational innovations transcend theoretical policy ideals and become enduring, transformative realities in the Indonesian classroom.

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