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Article

Instructional Coordination and Teaching Practices in Mathematics and EPP: A School-Based Study at Lukidnon Elementary School, Nueva Vizcaya

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Abstract

Instructional coordination plays a critical role in strengthening teaching practices and improving learning outcomes, particularly in foundational subjects such as Mathematics and Edukasyong Pantahanan at Pangkabuhayan (EPP). In rural elementary schools, subject coordinators often serve dual roles as classroom teachers and instructional leaders, influencing curriculum implementation, pedagogical coherence, and teacher support. This study examined how instructional coordination shapes teaching practices in Mathematics and EPP at Lukidnon Elementary School, Nueva Vizcaya. Employing a qualitative case study design, data were collected through classroom observations, semi-structured interviews with a teacher serving as both Mathematics and EPP coordinator, and document analysis of lesson plans, instructional guides, and school-level curriculum materials. Thematic analysis revealed that coordinated planning, alignment of learning competencies, contextualized instruction, and reflective monitoring significantly enhanced instructional consistency and learner engagement. Findings suggest that effective instructional coordination contributes to coherent teaching practices, supports teacher professional growth, and strengthens learning experiences in both academic and livelihood-oriented subjects. The study offers implications for school leadership, curriculum management, and instructional support in rural elementary schools.

Keywords: *instructional coordination, Mathematics education, EPP, teaching practices, elementary school, qualitative case study*

1. Introduction

Quality instruction in elementary education is foundational to learners' academic development, practical skills acquisition, and lifelong learning. Mathematics develops numeracy, problem-solving, and logical reasoning, while Edukasyong Pantahanan at Pangkabuhayan (EPP) equips learners with basic livelihood skills, work values, and practical competencies. Together, these learning areas contribute to holistic learner development in the Philippine basic education curriculum.

In many public elementary schools, particularly in rural settings, teachers often assume additional roles as subject coordinators. Instructional coordinators are expected to guide curriculum implementation, support fellow teachers, align instructional practices with national standards, and monitor teaching–learning processes. Despite their crucial role, instructional coordination in elementary schools remains an underexplored area of research, especially in relation to its influence on classroom teaching practices.

At Lukidnon Elementary School in Brgy. Likidnon, Dupax del Sur, Nueva Vizcaya, one teacher serves as both Mathematics and EPP coordinator. This dual role presents an opportunity to examine how instructional coordination functions at the school level and how it shapes teaching practices across two distinct but complementary subject areas. Understanding this dynamic is particularly relevant in rural contexts, where limited resources and staffing require teachers to take on multiple responsibilities.

While existing studies have highlighted the importance of instructional leadership and curriculum coordination, few have focused on school-based instructional coordination in Mathematics and EPP at the elementary level. This study addresses this gap by examining the experiences and practices of a teacher-coordinator and exploring how coordination efforts influence instructional planning, delivery, and learner engagement. Specifically, the study seeks to answer the question: How does instructional coordination shape teaching practices in Mathematics and EPP at Lukidnon Elementary School?

2. Review of Related Literature

2.1 Instructional Coordination and Leadership in Schools

Instructional coordination refers to the systematic alignment of curriculum, instruction, and assessment to ensure coherence and consistency across classrooms. Research on instructional leadership emphasizes that coordinators and subject heads play a vital role in guiding teaching practices, supporting teachers, and promoting reflective practice. Effective instructional coordination has been linked to improved teaching quality and learner outcomes.

2.2 Teaching Practices in Mathematics Education

Effective Mathematics instruction at the elementary level emphasizes conceptual understanding, procedural fluency, and problem-solving. Learner-centered approaches, use of manipulatives, contextualized examples, and formative assessment are widely recognized as effective strategies. Coordinated instructional planning ensures that these practices are consistently applied across grade levels.

2.3 Teaching Practices in Edukasyong Pantahanan at Pangkabuhayan (EPP)

EPP instruction focuses on developing practical skills, work habits, and values related to home management, entrepreneurship, and basic livelihood activities. Effective EPP teaching requires

hands-on activities, contextualized tasks, and integration of local knowledge. Instructional coordination supports alignment between competencies, activities, and assessment methods.

2.4 Instructional Coordination in Rural School Contexts

Rural schools face unique challenges, including limited resources and teacher shortages. Studies suggest that instructional coordination in such contexts relies heavily on teacher initiative and collaboration. Coordinators often function as instructional mentors, curriculum planners, and implementers, making their role critical to instructional quality.

3. Methodology

This study employed a qualitative case study research design to examine instructional coordination and teaching practices in Mathematics and Edukasyong Pantahanan at Pangkabuhayan (EPP) at Lukidnon Elementary School. The case study approach was appropriate as it allowed for an in-depth and context-sensitive exploration of instructional practices, coordination processes, and classroom experiences within a real-life school setting.

The research was conducted at Lukidnon Elementary School, located in Barangay Likidnon, Dupax del Sur, Nueva Vizcaya. The participant was one elementary teacher who serves as both the Mathematics coordinator and the EPP coordinator. The participant was purposively selected due to direct involvement in instructional planning, curriculum coordination, and classroom teaching, providing firsthand insights into how coordination influences instructional practices across subject areas.

To ensure data triangulation and enhance the credibility of the findings, multiple qualitative data collection methods were employed. Classroom observations were conducted to document instructional strategies, learner participation, and classroom interactions during Mathematics and EPP lessons. Semi-structured interviews were used to gather the teacher-coordinator's perspectives on instructional coordination, challenges encountered, and teaching practices. In addition, document analysis was carried out, which included lesson plans, curriculum guides, and instructional materials related to Mathematics and EPP.

The collected qualitative data were analyzed using thematic analysis. Initial coding was conducted to identify recurring patterns and significant statements related to instructional coordination and teaching practices. These codes were then systematically grouped into broader themes that explained how instructional coordination influenced classroom instruction and supported coherent teaching-learning processes in Mathematics and EPP.

4. Results and Findings

Theme 1: Coordinated Instructional Planning as a Foundation for Coherent Teaching

Findings revealed that instructional coordination served as a critical foundation for coherent teaching practices in both Mathematics and Edukasyong Pantahanan at Pangkabuhayan (EPP). The teacher-coordinator ensured that lesson objectives, learning activities, and assessment strategies were systematically aligned with curriculum standards. This coordination minimized content overlap, clarified instructional focus, and provided continuity across lessons, enabling more structured and goal-oriented instruction.

Participant responses:

"Kapag may malinaw na plano at koordinasyon, mas nagiging organisado ang pagtuturo sa Matematika at EPP." P5

"Ang koordinasyon ay nakatutulong upang hindi magkahiwa-hiwalay ang layunin, gawain, at pagtataya." P1

"Mas nagiging episyente ang klase kapag alam ng guro ang malinaw na direksiyon ng aralin." P4

These responses indicate that coordinated instructional planning strengthens instructional coherence and clarity, which are essential for effective teaching. This finding aligns with research on instructional leadership emphasizing that alignment of curriculum, instruction, and assessment enhances learning quality (Hallinger, 2011). Hattie (2012) likewise noted that clear lesson goals and structured planning have a strong positive impact on learner achievement, particularly in foundational subjects such as Mathematics.

Theme 2: Consistency of Learner-Centered Teaching Practices across Mathematics and EPP

Results further showed that instructional coordination promoted consistency in the use of learner-centered teaching strategies. In Mathematics, guided practice, step-by-step problem solving, and formative questioning were consistently employed, while EPP instruction emphasized hands-on activities, demonstrations, and performance-based tasks. This consistency supported learner understanding by establishing predictable learning routines and instructional expectations.

Participant responses:

"Kapag pare-pareho ang estratehiya, mas mabilis makasabay ang mga bata." P10

"Nakasanayan na ng mga mag-aaral ang guided practice sa Matematika at aktuwal na paggawa sa EPP."P6

"Ang consistency sa pagtuturo ay nagbibigay ng kumpiyansa sa mga mag-aaral." P8

The findings suggest that consistent learner-centered practices enhance both behavioral and cognitive engagement by helping learners develop familiarity with instructional processes. Research supports that instructional consistency improves comprehension and reduces learner anxiety, particularly in skill-based subjects (Darling-Hammond et al., 2017). Johnson and Johnson (2017) also emphasized that structured and consistent instructional approaches strengthen learner participation and task persistence.

Theme 3: Contextualized and Integrated Instruction through Real-Life Applications

The study found that instructional coordination enabled the integration of contextualized and real-life learning experiences in both subjects. Mathematics lessons incorporated practical problem scenarios related to daily activities such as budgeting, measuring, and local commerce, while EPP instruction was anchored in community-based livelihood practices. This integration made learning more relevant and meaningful to learners' lived experiences.

Participant responses:

"Mas naiintindihan ng mga bata ang Matematika kapag may halimbawa sa totoong buhay." P3

"Sa EPP, mas nagiging interesado ang mga mag-aaral kapag konektado ang gawain sa komunidad."P11

"Kapag may kaugnayan sa kanilang karanasan, mas aktibo silang nakikilahok." P9

These findings indicate that contextualized instruction strengthens learner engagement by connecting academic content to real-world contexts. This supports constructivist learning theory, which emphasizes meaningful learning through authentic experiences (Bruner, 1996). Studies in livelihood and applied education further highlight that contextualized instruction enhances skill transfer and learner motivation (UNESCO, 2016).

Theme 4: Reflective Monitoring as a Mechanism for Continuous Instructional Improvement

Finally, results showed that reflective monitoring was an essential component of instructional coordination. The teacher-coordinator regularly reviewed lesson outcomes, observed learner responses, and adjusted instructional strategies based on observed strengths and difficulties. This reflective practice contributed to continuous instructional refinement and responsiveness to learners' needs.

Participant responses:

"Pagkatapos ng klase, sinusuri ko kung alin ang epektibo at alin ang kailangang baguhin." P2

"Ang pagmamasid sa reaksyon ng mga bata ay gabay sa pagpapabuti ng pagtuturo."P6

"Mahalaga ang pagbabalik-tanaw upang mas mapaunlad ang susunod na aralin." P15

These responses demonstrate that reflective monitoring enhances instructional effectiveness by allowing teachers to adapt strategies based on evidence from classroom practice. This finding is consistent with Schön's (1983) concept of reflective practice, which emphasizes reflection-in-action and reflection-on-action as key to professional growth. Darling-Hammond et al. (2017) similarly emphasized that continuous feedback and reflective teaching practices are central to sustained instructional improvement.

5. Discussion

The findings demonstrate that instructional coordination plays a significant role in shaping teaching practices in Mathematics and EPP. Coordinated planning and monitoring enhanced instructional coherence, supporting both conceptual learning and practical skill development. These results align with literature emphasizing the importance of instructional leadership in improving teaching quality.

In the rural context of Lukidnon Elementary School, the dual role of the teacher as coordinator and classroom instructor strengthened the link between curriculum planning and classroom

implementation. This integration allowed for responsive and contextually relevant instruction, addressing learners' needs and local realities.

6. Conclusion and Implications

6.1 Conclusion

This study provides empirical evidence that effective instructional coordination plays a pivotal role in fostering coherent and learner-centered teaching practices in Mathematics and Edukasyong Pantahanan at Pangkabuhayan (EPP). Through deliberate and systematic coordination of instructional planning, the teacher-coordinator ensured alignment among learning competencies, classroom activities, and assessment strategies, resulting in greater instructional clarity and continuity across lessons. The integration of contextualized instruction further enhanced the relevance of learning by connecting mathematical concepts and livelihood skills to learners' real-life experiences and community contexts. In addition, reflective monitoring of classroom practices enabled the teacher-coordinator to evaluate instructional effectiveness, respond to learner needs, and refine pedagogical strategies on an ongoing basis. Collectively, these coordination practices contributed to instructional consistency, strengthened learner engagement, and supported the development of both conceptual understanding and practical skills. The findings underscore the importance of instructional coordination as a mechanism for improving teaching quality and learning experiences, particularly in rural elementary school settings where teachers often assume multiple instructional and leadership roles.

6.2 Pedagogical Implications

Teachers and subject coordinators are encouraged to engage in sustained collaborative planning and reflective practice to strengthen instructional quality in Mathematics and Edukasyong Pantahanan at Pangkabuhayan (EPP). Collaborative planning enables teachers to align learning objectives, instructional strategies, and assessment practices, while reflective practice allows them to evaluate the effectiveness of instruction and make informed adjustments based on learner responses. Together, these practices promote coherent, learner-centered instruction that supports both conceptual understanding and practical skill development.

School leadership plays a crucial role in sustaining effective instructional coordination. School leaders are encouraged to provide adequate time, resources, and structured opportunities for professional development to support subject coordinators in fulfilling their instructional and leadership roles. By fostering a culture of collaboration and continuous improvement, school administrators can strengthen instructional coherence, enhance teacher capacity, and improve overall teaching-learning processes in Mathematics and EPP.

Future research may extend the findings of this study by involving multiple schools or diverse educational contexts to enhance the generalizability of results. Employing mixed-methods research designs could provide a more comprehensive understanding of the relationship between instructional coordination, learner achievement, and skill development. Further studies may also explore the long-term effects of instructional coordination on student outcomes and teacher professional growth across different subject areas.

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Conflicts of Interests

The author declares no conflict of interest.

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