



(RESEARCH ARTICLE)



Utilization of the pedagogical approaches of secondary teachers in Bacacay districts

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Abstract

This study determined the utilization of the pedagogical approaches in English, Mathematics, and Science of secondary teachers in Bacacay Districts, SY 2023-2024. Specifically, it answered the following sub-problems. 1. What are the pedagogical approaches in English, Mathematics, and Science utilized by secondary teachers? 2. What is the level of utilization of the pedagogical approaches in English, Mathematics, and Science along reflective learning; integrative approach; inquiry-based approach; problem-based approach; collaborative approach; differentiated instruction; project-based approach; and constructivist approach? 3. What is the extent of utilization of the pedagogical approaches in English, Mathematics, and Science as observed by the school heads? 4. Is there a significant relationship between the level and extent of utilization of pedagogical approaches in English, Mathematics, and Science? 5. What are the challenges encountered on the use of the pedagogical approaches? 6. What training design may be proposed to address the challenges?

This study employed the quantitative-survey type of research. The study has a total of 121 respondents. Out of this number, thirty-seven (37) are teaching English; forty-one (41) are teaching Mathematics; and forty-three (43) are teaching Science. Frequency count, percentage, weighted mean, F-test and ranking were the statistical tools used to interpret the quantitative data collected.

Keywords: Pedagogical Approach; Quantitative Survey; Inquiry-Based Approach; Collaborative Approach

1. Introduction

Learning serves as a cornerstone of national development, with education functioning as the primary driver of societal progress. Pedagogical approaches—teaching strategies grounded in theories and principles of learning—are essential tools for fostering student achievement. These methods are not one-size-fits-all; rather, they must be adapted to suit diverse student needs and varied classroom contexts. Effective pedagogy ensures students are not merely recipients of information but active participants in the learning process.

To enhance the global quality of education, organizations like Education International and UNESCO introduced the Global Framework of Professional Teaching Standards. This framework outlines three key domains—teaching knowledge and understanding, teaching practice, and teaching relationships—as benchmarks for effective instruction. Rooted in the Sustainable Development Goal 4, the framework champions equitable, inclusive, and quality education by supporting teachers in their professional development and guiding nations toward consistent teaching excellence.

In the Philippines, efforts to elevate student learning outcomes have been closely tied to improving teacher quality. This includes ensuring that teachers can deliver transformative education using context-sensitive and progressive instructional strategies. As teaching standards evolve, educators are expected to embody reflective practices,

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continuously refining their pedagogical choices to optimize learning. Ultimately, quality teaching—anchored in thoughtful pedagogy—remains instrumental in shaping lifelong learners and resilient education systems.

2. Materials and methods

Education plays a pivotal role in national development, with global studies showing that a 10% increase in average years of schooling can raise a country's GDP by 0.37% per year. Pedagogical approaches—ranging from direct instruction to inquiry-based learning—must be adaptable to student diversity. For instance, differentiated instruction has been shown to improve learning outcomes by up to 30%, particularly in heterogeneous classrooms. By focusing on active participation and critical thinking, effective pedagogy prepares learners for dynamic societal roles.

The Global Framework of Professional Teaching Standards, developed by UNESCO and Education International, identifies three core domains: teaching knowledge, practice, and relationships. Countries that have aligned their professional teaching standards with this framework have demonstrated measurable progress. According to a 2023 UNESCO report, nations implementing competency-based teaching standards saw a 12% improvement in literacy rates and a 9% rise in student engagement over five years. The framework directly supports the fulfillment of Sustainable Development Goal 4, which targets inclusive and quality education for all by 2030.

In the Philippine context, recent initiatives such as the National Educators Academy of the Philippines' (NEAP) retooling program aim to upskill over 880,000 teachers nationwide. Research suggests that highly qualified teachers can positively influence student achievement, with studies indicating a 20–25% variance in student performance attributed to teacher effectiveness. By equipping educators with adaptive, research-informed strategies and setting clear competency standards, the country moves closer to enhancing student outcomes and bridging educational disparities.

3. Results and discussions

The study revealed that secondary teachers in English, Mathematics, and Science consistently employed a wide array of pedagogical approaches, including reflective learning, integrative, inquiry-based, problem-based, collaborative, differentiated instruction, project-based, and constructivist strategies. Both teacher self-assessments and school head observations indicated that these methods were utilized "always," suggesting a high level of integration in daily instructional practices. This points to the teachers' strong commitment to employing varied, student-centered techniques that promote active engagement and deeper learning.

Despite the consistent use of these approaches, statistical analysis showed no significant relationship between the level and extent of their utilization across subjects. This finding indicates that while pedagogical diversity is evident, its frequency or depth of application does not necessarily vary significantly among teachers or subjects. However, the absence of a correlation may also suggest that other contextual factors—such as school infrastructure, class size, or teacher preparedness—play a more critical role in shaping instructional outcomes.

A range of practical challenges hinder the optimal execution of these pedagogical strategies. Common issues included limited time for reflective learning, difficulty balancing content areas in integrative teaching, and inadequate materials for inquiry-based and constructivist learning. Moreover, teachers reported time constraints in preparing differentiated lessons and managing collaborative or project-based activities. In response, the researcher developed a targeted training design to equip educators with tools and strategies to overcome these barriers, aiming to enhance instructional effectiveness and sustain meaningful learning experiences.

4. Conclusion

Education remains vital to societal advancement, with adaptable pedagogical strategies at its core, ensuring learners are actively engaged and empowered across diverse contexts. The Global Framework of Professional Teaching Standards, aligned with Sustainable Development Goal 4, serves as a global guide for fostering teacher effectiveness and equity in education. In the Philippines, sustained improvements in learning outcomes hinge on enhancing teacher quality through context-relevant, reflective practices—underscoring that transformative teaching is central to cultivating capable, future-ready learners.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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