PEDAGOGICAL PRACTICES IN TEACHING STATISTICS AND THEIR INFLUENCE ON SENIOR HIGH SCHOOL STUDENTS' LEARNING OUTCOMES

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Statistics is more than just numbers; it is a critical tool that enables learners to analyze, interpret, and make informed decisions in real-life situations. At the Senior High School level, the effectiveness of teaching strategies directly influences students' understanding of statistical concepts and their ability to apply them meaningfully. The Department of Education emphasizes Statistics as a core subject in the K to 12 curriculum, aimed at developing learners' analytical and critical thinking skills. Research highlights that active and student-centered pedagogical practices, such as inquiry-based learning and real-world applications, significantly enhance comprehension and engagement in Statistics (Jugan, 2025).

Despite its importance, many Senior High School learners struggle with Statistics due to conventional teaching methods that focus on rote memorization and procedural instruction. This approach often fails to engage students or help them internalize abstract concepts, resulting in difficulties with interpreting data, applying formulas, and solving practical problems. Villocino & Villocino (2025) found that students' learning outcomes are strongly linked to teachers' pedagogical choices, with learner-centered, interactive methods yielding higher achievement and deeper conceptual understanding.

To address these challenges, teachers are encouraged to adopt innovative strategies that actively involve students in the learning process. Differentiated instruction, contextualized examples, collaborative activities, and technology integration can improve engagement and understanding in Statistics. Providing regular formative

assessments, immediate feedback, and guided practice supports learners' confidence and skill development. Continuous professional development equips teachers with the knowledge and strategies needed to implement effective instructional practices aligned with curriculum standards (Ventista & Brown, 2023).

The quality of pedagogical practices in teaching Statistics plays a central role in shaping students' learning outcomes and preparing them for higher education and real-world applications. When teachers provide meaningful, engaging, and supportive learning experiences, students develop stronger analytical skills and confidence in applying statistical reasoning. Strengthening instructional practices contributes to improved academic performance and ensures that Senior High School learners acquire the competencies necessary for lifelong learning and success.

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