

RESEARCH ARTICLE

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METHODOLOGY OF SCIENTIFIC WORK "INNOVATIVE METHODS OF ACTIVE TEACHING IN PRIMARY EDUCATION: FROM THEORY TO APPLICATION"

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Abstract

The article presents the approach and procedures used in the methodological department to study the implementation and impact of innovative active teaching methods in primary education. It describes the research design, participants, data collection methods, and analysis strategies used to explore the theoretical and practical aspects of active learning in elementary education settings.

Keywords methodology, scientific, work, innovative methods, active teaching, primary education, theory.

INTRODUCTION

The study adopts a mixed-methods research design, combining quantitative and qualitative approaches to provide a comprehensive understanding of the effects of active learning strategies in primary education. This design allows for the triangulation of data, enhancing the validity and reliability of the research findings.

Participants

The study involves a sample of primary school teachers and students across several schools that have implemented active learning methodologies. Teachers are selected based on their experience with active learning strategies, while students are chosen across different grades to represent a wide range of ages and learning stages. The selection process employs a purposive sampling technique to ensure participants have direct exposure to innovative active learning practices.

Data Collection Methods

Surveys

Quantitative data is collected through structured surveys administered to both teachers and students. Teacher surveys focus on pedagogical practices, perceptions of active learning benefits, and challenges encountered during implementation. Student surveys assess engagement levels, motivation, and perceived learning outcomes.

Interviews

Qualitative data is gathered through semi-structured interviews with a subset of teachers and students. These interviews aim to delve deeper into personal experiences, attitudes towards active learning, and the perceived impact on teaching and learning processes.

Classroom Observations

Direct observations of classroom activities are conducted to gather real-time data on the implementation of active learning strategies.

Observation sessions focus on teacher-student interactions, student engagement, and the use of materials and resources to facilitate active learning.

Data Analysis

Quantitative Analysis

Survey responses are analyzed using statistical software to identify patterns and relationships between active learning practices and educational outcomes. Descriptive statistics, correlation analysis, and regression models are employed to quantify the impact of active learning on student engagement and academic achievement.

Qualitative Analysis

Interview transcripts and observation notes are analyzed using thematic analysis to identify common themes and insights related to the experiences and effectiveness of active learning strategies. Coding is performed iteratively to ensure a comprehensive understanding of participant perspectives.

Ethical Considerations

The study adheres to ethical guidelines to ensure the confidentiality and anonymity of participants. Informed consent is obtained from all participants, and special care is taken to protect the identity and privacy of student participants, in accordance with ethical standards for research involving minors.

Limitations

The study acknowledges potential limitations, including the sample size, the subjective nature of self-reported data, and the variability in the implementation of active learning strategies across different classrooms. These limitations are considered in the interpretation of the findings.

This methodology section outlines the framework for investigating the integration of innovative active learning strategies in primary education. By employing a mixed-methods approach, the study

aims to capture a holistic view of the theoretical underpinnings, practical applications, and outcomes of active learning, contributing valuable insights to the field of educational theory and methodology.

A detailed questionnaire survey is designed. This survey aims to collect comprehensive data on the implementation, effectiveness, challenges, and perceptions of innovative active learning strategies in primary education. The survey is structured to gain insights from various stakeholders in the educational community, including teachers, students, and parents.

The objective of this survey is to understand the current landscape of active learning methodologies in primary education. Active learning, characterized by student engagement, collaboration, and hands-on activities, is pivotal in fostering critical thinking and deep understanding. This survey seeks to gather empirical data on the efficacy of these methodologies from the perspectives of those directly involved in the educational process. The findings will contribute to the broader discourse on educational methodologies, potentially influencing future pedagogical practices.

Gathering demographic information is crucial for analyzing the data within context. Questions about the respondent's age, gender, and education level provide insights into the diversity of perspectives. Additionally, understanding the respondent's role within the educational ecosystem (e.g., teacher, student, parent) helps in tailoring subsequent questions and interpreting the results with nuance, ensuring that the findings accurately reflect the varied experiences of different stakeholders.

This section delves into the respondent's direct experiences with active learning. It inquires about the types of active learning strategies encountered, such as project-based learning, peer teaching, or technology-enhanced activities. Understanding the

frequency and context in which these strategies are employed sheds light on their penetration and acceptance within the educational framework. Furthermore, questions aimed at gauging the perceived effectiveness of these strategies on student engagement and academic performance offer critical insights into their practical impact. Such data are indispensable for evaluating the success of active learning methodologies beyond theoretical assumptions, highlighting areas of strength and opportunities for improvement.

Part C: Challenges and Support for Active Learning Implementation

Implementing innovative educational strategies is not without challenges. This section seeks to uncover the hurdles educators and institutions face in adopting active learning methods. By identifying issues such as resource limitations, insufficient training, or curriculum inflexibility, stakeholders can better understand what factors impede the widespread adoption of these methods. Concurrently, exploring what support mechanisms (e.g., professional development, technological infrastructure) respondents believe would facilitate the implementation of active learning strategies provides a roadmap for overcoming these challenges. This insight is crucial for policymakers, educational leaders, and practitioners aiming to enhance the efficacy and reach of active learning.

Part D: Open-Ended Feedback

The final section offers respondents the opportunity to share their personal experiences, opinions, and suggestions regarding active learning in primary education. This open-ended question allows for the collection of qualitative data, enriching the survey findings with nuanced perspectives that might not be captured through structured questions alone. Such feedback is invaluable for identifying innovative practices, anecdotal evidence of success or failure, and

unique insights that can inform future research and practice in the field of education.

The purpose of the study

Through this comprehensive questionnaire survey, the study aims to contribute meaningful data and insights into the implementation and impact of active learning strategies in primary education. The diverse perspectives gathered will enrich the discourse on educational methodologies, providing a foundation for future innovations in teaching and learning that are both effective and engaging.

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