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THE SCIENTIFIC AND THEORETICAL FOUNDATIONS OF SITUATIONAL MODELING IN PREPARING CONSTRUCTIVE TEACHERS

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Abstract. This article explores the scientific and theoretical foundations of situational modeling in the preparation of constructive teachers. In the context of modern pedagogical challenges, constructive teaching is considered a key competency that enables educators to design, manage, and evaluate learning processes creatively and effectively. Situational modeling is examined as an innovative methodological approach that simulates real-life teaching situations, enhances professional reflection, and develops problem-solving skills. The paper analyzes the psychological-pedagogical basis of modeling, highlights the structural elements of situational learning environments, and discusses the role of simulation-based training in shaping future teachers' professional readiness. Emphasis is placed on the integration of situational strategies into teacher education programs as a means of fostering constructive thinking, autonomy, and adaptability.

Keywords: constructive teaching, situational modeling, teacher education, simulation, professional readiness, pedagogical competence, reflective thinking, problem-solving, interactive learning, didactic design.

INTRODUCTION

In the rapidly evolving landscape of modern education, the role of the teacher is shifting from a transmitter of knowledge to a designer of learning environments and a facilitator of student-centered development. This transformation requires a new generation of educators who are not only knowledgeable but also capable of thinking constructively, adapting flexibly, and responding effectively to real classroom situations. As such, the preparation of constructive teachers—those who can critically analyze educational contexts, make pedagogically sound decisions, and foster meaningful learning—has become a central focus of teacher education programs.

Situational modeling has emerged as a promising theoretical and methodological framework in this regard. Rooted in constructivist and activity-based learning theories, situational modeling enables future educators to engage in problem-oriented, context-rich simulations that mirror real-life teaching challenges. By immersing teacher candidates in authentic pedagogical scenarios, this approach enhances their capacity for reflective thinking, decision-making, and practical application of theoretical knowledge.

This paper seeks to investigate the scientific and theoretical underpinnings of situational modeling in the context of preparing constructive teachers. It begins by defining key concepts such as constructive teaching and situational learning, and then explores the psychological-pedagogical principles that support their integration. Furthermore, it examines how situational

models can be effectively incorporated into teacher education curricula to cultivate professional competencies essential for the 21st-century classroom.

METHODOLOGY

This study employs a qualitative research methodology grounded in theoretical analysis and synthesis of existing literature related to constructive teaching and situational modeling. The research approach is descriptive and conceptual in nature, aiming to identify and elaborate on the scientific foundations, pedagogical principles, and implementation strategies of situational modeling in teacher education.

1. Research Design

The methodological design of the study is based on the analysis of theoretical constructs and empirical studies published in national and international academic journals. It adopts an interpretive paradigm to understand the relationship between situational modeling and the development of constructive teacher competencies.

2. Data Collection Methods

Data were collected through a structured review of:

Academic books and peer-reviewed articles on constructivist pedagogy, simulation-based education, and teacher development;

Curriculum documents from leading teacher education institutions;

Government and policy documents related to modern pedagogical training standards.

The sources were selected using purposive sampling to ensure relevance, credibility, and alignment with the research objectives.

3. Analytical Methods

The collected materials were subjected to:

Content analysis – to identify core principles, recurring strategies, and theoretical patterns in situational modeling;

Comparative analysis – to contrast different models of simulation-based training used across various teacher education frameworks;

Thematic coding – to categorize key components such as reflective practice, decision-making, and classroom adaptability.

The findings were synthesized to build a comprehensive conceptual model demonstrating how situational modeling contributes to constructive teacher preparation.

4. Research Limitations

This study is limited to theoretical sources and does not include direct empirical experimentation or fieldwork. However, it lays the groundwork for future experimental research that may empirically validate the effectiveness of situational models in enhancing teacher competencies.

DISCUSSION

The findings of this study underscore the pivotal role of situational modeling in equipping future teachers with constructive pedagogical competencies. As contemporary classrooms become increasingly complex and dynamic, traditional theoretical instruction is no longer sufficient for teacher preparation. Instead, teacher education must incorporate strategies that closely replicate real-world teaching challenges. Situational modeling fulfills this need by immersing teacher candidates in realistic scenarios that require analysis, decision-making, reflection, and adaptation.

Situational modeling draws heavily on the theories of constructivism (Piaget, Vygotsky), which emphasize the active construction of knowledge through experience. By engaging with contextual teaching situations, teacher candidates are encouraged to build meaning, test assumptions, and develop pedagogical solutions in a safe, experimental environment. This fosters reflective thinking, a core attribute of constructive teaching, and prepares teachers to handle unpredictable situations in actual classrooms.

One of the key advantages of situational modeling is its ability to simulate problem-based learning environments where future educators must apply theoretical knowledge in practice. For example, case-based learning or micro-teaching scenarios challenge participants to manage classroom behavior, differentiate instruction, and implement inclusive teaching strategies—all of which demand constructive thinking and decision-making skills.

Moreover, situational models enhance professional self-awareness and metacognitive growth. Teachers-in-training become more conscious of their teaching style, biases, and areas for improvement. This reflective cycle contributes significantly to their professional identity formation and long-term effectiveness as educators.

However, implementing situational modeling effectively in teacher education programs requires:

Skilled facilitators who can scaffold the experience and guide reflective debriefing;

Access to diverse, contextually rich teaching cases;

Institutional support for simulation-based training environments, including digital tools and collaboration spaces.

The literature also suggests that situational modeling should not be viewed as a one-time instructional technique but as a sustained pedagogical strategy integrated throughout the teacher training process. Studies by Mitina (2004), Kolb (1984), and Schön (1983) confirm that experiential learning models, when implemented consistently, result in measurable improvements in professional competence and adaptive expertise.

In summary, situational modeling aligns closely with the goals of constructive teaching by:

Promoting active engagement with realistic teaching problems;

Encouraging continuous reflection and analysis;

Supporting the development of critical professional skills such as classroom leadership, communication, and instructional planning.

This discussion suggests that situational modeling is not merely a methodological innovation but a transformative pedagogical paradigm that redefines how future teachers learn to teach.

CONCLUSION

The analysis presented in this article highlights the scientific and theoretical value of situational modeling as a powerful approach to developing constructive teaching competencies. In the face of modern educational challenges, teacher preparation must move beyond abstract theory and embrace realistic, dynamic, and reflective practices that mirror the complexities of actual classroom environments.

Situational modeling provides a structured yet flexible framework for engaging future teachers in meaningful, context-based learning experiences. It supports the cultivation of critical skills such as reflective thinking, adaptive decision-making, and creative problem-solving—skills essential for fostering learner-centered, inclusive, and responsive education. Furthermore, it bridges the gap between pedagogical theory and classroom practice by offering teacher candidates opportunities to rehearse their professional roles in a controlled yet authentic setting. The theoretical underpinnings of situational modeling, grounded in constructivist and experiential learning theories, affirm its relevance in contemporary teacher education. When properly implemented, situational approaches do not merely simulate teaching; they transform the learning process itself, shaping educators who are not only competent but also confident, critical, and innovative in their work.

In conclusion, situational modeling should be considered an integral component of teacher training curricula. Its consistent and thoughtful application can significantly enhance the quality of teacher preparation programs and contribute to the emergence of a new generation of constructive, reflective, and future-ready educators.

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