

ABSTRACT OF THE DISSERTATION

INTEGRATING GAMIFICATION INTO MATHEMATICS INSTRUCTION: A QUALITATIVE EXPLORATORY CASE STUDY ON THE PERCEPTIONS OF TEACHERS AT THE FOURTH AND FIFTH GRADE LEVEL

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The purpose of this qualitative exploratory case study was to garner knowledge on how teachers perceive the effects of gamification on students' academic performance on mathematics standardized examination. Gamification is a developing pedagogy with limited studies exploring its effectiveness in the discipline of mathematics. The 2 research questions that guided this study were: How do 4th and 5th grade teachers perceive the effects of gamification on students' academic performance in mathematics standardized examinations? How do teachers perceive the implementation of gamification on students' success? This research was grounded in the theoretical framework of Piaget and Vygotsky's theory of constructivism as well as Skinner's theory of operant conditioning and Bandura's self-regulation theory. There is inadequate

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knowledge on how teachers perceive the effects of gamification on students' academic performance on mathematics standardized examination.

The participants were 4th and 5th grade teachers at the elementary level. Data were collected with the use of individual interviews, field notes, and assessment data. A questionnaire was used to select purposefully participants. The responses to the semiopen-ended questions from the interview were recorded, transcribed, and analyzed using line-by-line coding technique. This led to the emergence of 6 themes surrounding significant statements made by the participants. These themes include attitude, perception, learning outcomes, instructional practices, and professional support. The findings highlighted the essence of the shared perceptions of the study participants.

Keywords: avatars, badges, behaviorism, constructivism, gamification, Kahoot, leaderboards, Mathematics, points, Quizziz, and standardized testing