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**Exploring Dimensions of Educational Games and Their Benefits for  
Student Engagement and Achievement**

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**ABSTRACT**

Educational games have become an increasingly prominent instructional medium capable of fostering active learning, sustained motivation, and measurable academic gains. Despite growing adoption, limited systematic understanding exists regarding the core dimensions that define educational games and the precise mechanisms through which these dimensions influence student engagement and achievement. This research explores the multidimensional nature of educational games by identifying and analyzing key structural, pedagogical, technological, and experiential dimensions. Drawing on an integrated review of theoretical frameworks, empirical studies, and representative game exemplars, the study develops a coherent dimensional model encompassing narrative design, challenge calibration, feedback systems, social interaction, personalization, and assessment alignment. The investigation further examines how these dimensions contribute to heightened cognitive and affective engagement, deeper knowledge construction, skill development, and improved academic performance across diverse learner populations and subject domains. Through qualitative synthesis and targeted empirical inquiry, the research establishes evidence-based linkages between specific game dimensions and measurable outcomes in engagement and achievement. The resulting insights offer educators, instructional designers, and policymakers a practical framework for selecting, adapting, and designing educational games that maximize learning impact. This work advances both theoretical clarity and applied practice in the field of game-based education.

**Keywords** *Educational Games; Student Engagement; Academic Achievement*