
Social Media - a Supplemental Instructional Platform to promote *Dynamic Self-Regulated Learning*: Deconstructing mathematical precepts through virtual social constructivism lenses.

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Keywords

Dynamic self-regulated learning, system doctrine, self-regulated learning, supplemental Instruction, blended learning, social-constructivism, math education.

Abstract

The objective of this research is to determine the effectiveness of using a Social-Media as a Supplemental Instructional Platform particularly to promote Dynamic Self-Regulated Learning (SRL-d) in the developmental mathematics collegiate students. This study asserts that Social Media can serve as the wholesome supplemental instructional platform that is needed to create the discursive interactions necessary to facilitate SRL-d which, by extension, serves to increase students': mathematical conceptions, academic performance and retention rates. This research contends that virtual interactions can adequately stimulate students' enthusiasm, passion, insight, interest and curiosity - all of which are primary tenets of SRL-d. The research argues that a virtual platform can serve as an immediate space to aid in the contextualization of mathematical concepts which, invariably, leads to higher order mathematical elaborations.

Participants were required to complete a survey, a questionnaire, and the entire population was tested. Our findings indicated that there was a significant difference in the performance and retention rates of students who used a SSIP verses the general student population. Additionally, our survey indicated a significant improvement in participants' mathematical Identity and conception. It stands to reason that as SSIP supported the various discursive interactions needed to facilitate active learning. There was a 20% increase in class average, a 25% increase in performance, and a 20 % increase in retention rates when compared with the general population.
