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Effectiveness of Math differentiation using an Intervention program for high-ability students, implemented in a mixed ability 5th grade classroom

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Abstract

In India, schools have 'mixed-ability classrooms' – students of various abilities in a single set-up; teachers use a 'one-size-fits-all' methodology to teach. The focus of present study was on introducing stimulation activities to students having higher abilities in Math. A Differentiation Program in Math was designed and implemented in a mixed-ability classroom. Students were divided into a control and experimental group of 20 each on the basis of a "Pragalbha scholastic test", assessing analytical, evaluative and application-based skills using the knowledge domain of Math and Science. At the end of the program, it was administered as a post-test (with a mixed-up sequence to reduce practice errors). The gain scores of the experimental were significantly higher than the control group ($t=2.351$, $df=35$, $p<.05$). A qualitative analysis of the responses given by the high-ability students as compared to other students indicated more number of responses, higher creativity, and greater complexity in respo**nse.**

***Keywords*:** Mathematics, High-ability Students, Differentiation, Intervention Program.