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IMPACT OF DIFFERENT TEACHING METHODS ON INTRINSIC MOTIVATION, SELF-CONCEPT AND ACHIEVEMENT IN SCIENCE: A CASE STUDY OF GRADE SIX STUDENTS AT A 1AB SCHOOL IN THE DEHIOWITA EDUCATION ZONE, SRI LANKA

N.W.L. Narangoda[1*] and W.D. Chandrasena[2]

[1]Kg/Dehiowita National School, Dehiowita, Sri Lanka
[2]Science Education Unit, Faculty of Science, University of Peradeniya, Sri Lanka
[*]wathsi.nwl@gmail.com

Science teaching needs to inspire children's curiosity by shifting the emphasis from knowing facts to focusing on innovation and creativity in applying ideas. If students have intrinsic motivation, they are active, curious, interested, and ready to engage in the learning process. Teaching methods are one of the best ways to inspire intrinsic motivation, self-concept and achievement. This research was conducted to investigate the effect of teaching methods on Grade 6 students' intrinsic motivation, self-concept and achievement in science in a 1AB school in Dehiowita Education Zone. A quantitative approach was applied, and the convenience sampling technique was used. Thirty-nine students from Grade 6-A and 40 students from Grade 6-B were selected. The 6-A class was used as the control group, while the 6-B class was used as the experimental group. The intervention process was implemented with conventional teaching methods for the control group and activity-based learning for 6-B. A Likert-type multidimensional questionnaire was administered before and after the intervention for both groups to measure their intrinsic motivation and self-concept. There were significant differences in intrinsic motivation and self-concept in the experimental group before and after the intervention (intrinsic motivation: $t = 7.493$, $p = 0.001$; self-concept: $t = 7.584$, $p = 0.001$). There was a significant difference between the control and experimental groups after the intervention (intrinsic motivation: $t = 7.743$, $p = 0.001$; self-concept: $t = 7.534$, $p = 0.001$). The results conclude that activity-based learning supports the improvement of students' intrinsic motivation and self-concept, thereby enhancing science education in Sri Lanka.

Keywords: Achievement, Intrinsic motivation, Science education, Self-concept