

MODELS AS EFFECTIVE TEACHING AIDS TO TEACH SENSORY SYSTEM OF HUMAN

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Science curriculum in Sri Lanka has undergone many reforms. The present competency based curriculum has been introduced in 2007. According to the Teachers' Instructional Manual the responsibility of the teacher is to get all the students to participate actively in science lessons and to achieve the expected level of each competency. But the major problem is the inability to achieve the target. The current teaching methods and the abstract levels of the concepts may be the reasons for this problem.

The main objective of this study was to assess the effectiveness of using models to teach the Sub units Nervous coordination and Sense organs in man in the Biology unit 1 to Grade 11 students compared to the teaching method given in the Teachers' Instructional Manual. These sub units contain many verbal and abstract concepts. Two classes of eleventh grade were selected from CP/W/ Pilawala Navodya School in Wattedegama Educational zone. Using a Prior knowledge test, two groups of students were made as Experimental group and the Control group. Experimental group was taught by making models while the Control group was taught using the methods given in the Teachers' Instructional Manual. Data were collected through assessments during the lessons, observations and evaluation of models made by students. After completion of teaching the relevant sub units both groups were tested by giving a Posttest.

Mean marks of the Experimental group for the six assessments were 73.00, 88.16, 82.33, 85.16, 83.81 and 83.33. Mean marks of the Control group were 74.65, 72.50, 71.65, 71.83, 70.00 and 72.80. Students in the Control group were scored higher for the assessment one. Students in the Experimental group gathered high marks than the control group in the other five assessments. In the Posttest the mean mark of the Experimental group was 66.57 and the standard deviation was 16.19. The mean mark of the Control group was 52.03 and the standard deviation was 18.28. There was a significant difference between the mean marks of the two groups ($P = 0.002 < \alpha = 0.05$) indicating that students in the Experimental group show higher performance than the Control group. It shows that the teachers can enhance the understanding of students by using models to bring more active participation in classroom work.