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Panel discussion as an effective method to involve students in learning science

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An understanding of the environment is required to prevent or mitigate activities that cause adverse effects on the environment. Hence environment is included in the school curriculum at various levels. Accordingly, the unit, "Man and Environment" in the Advanced Level Chemistry syllabus is vital as it is given when the students are ready to leave school. This paper presents how panel discussion has been effectively used in a GCE (A/L) classroom to teach sub unit on, "Water pollution" of the unit "Man and Environment" in the chemistry curriculum. Effectiveness of the present teaching method was assessed using a student survey, informal interviews with teachers and students and, analysis of responses to past examination papers. It was found that more than 60% of the teachers did not teach this unit in the school. They were not motivated to teach this unit as they considered that the reading material was descriptive and self-explanatory. Being the last unit in the syllabus the teachers had no time to cover it within the school time and assumed that the students would be able to learn it as a reading exercise. The analysis of G.C.E. (A/L) results showed that very few students attempted to answer questions on this unit and they were unable to give correct answers.

Lessons for the unit "Man and Environment" were prepared using a variety of methods adopted from Active Teaching Learning Approaches in Science (ATLAS). The sub unit on, "Water pollution" was taught by the method of panel discussion and by the traditional method in two mixed schools in the Kandy district for twelfth graders. The topics and ideas for panel discussions were generated by groups of students through a brainstorming session. Each group was asked to discuss about the ways and means of different water pollution and its effects and also the ways of minimizing them. The students gathered relevant information and pictures from various reading materials,

browsing the internet and discussing with experts and got prepared for the panel discussion as small groups. Finally each group was advised to prepare a document based on the panel discussion for their bulletin board. The students played the roles as panelists, audience and evaluators. The interactions among the three groups encouraged all students to actively participate resulting in a better understanding of the subject and development of skills such as communication and information processing in a friendly and enjoyable manner than the group of students who were taught by the traditional method. Further bulletin board display of reports with photographs prepared by groups was appreciated by other students and teachers in the school. Therefore the method of panel discussion is recommended as an effective method for teaching science.

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