

Role play as an active teaching learning approach in science (ATLAS)

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Teaching techniques used for formal education are mainly teacher centred, where communication is uni-directional and keeps the learners passive in the classroom. In the process of teaching and learning, the teacher should act as a facilitator to engage learners in hands-on activities to develop learners' knowledge, skills and attitudes. A number of different Active Teaching and Learning Approaches in Science (ATLAS) have been developed to motivate learners. Role play was selected for this study to improve active participation of students in reading, writing and listening.

The sub-units, "Effect of digging mines, burning of forest, destroying coral reefs and removing mineral resources on a large scale," of the unit 15 of the GCE Advanced Level chemistry syllabus were selected to study using role play in two grade twelve classes from two mixed semi-urban schools in Kandy district. The class was divided into four where each group was assigned a different topic to be carried out by the Environmental Authority namely, (a) coast conservation, (b) digging mines, (c) petroleum and (d) forests. They were made aware of the five stages of role play namely, preparation, briefing, action, debriefing and follow up. In the preparation stage, the students were informed how to conduct a conference as leaders of the four groups of the Environmental Authority. The group leader assigned different roles to members such as readers, writers and editor. Within the given time, they had to collect information using the available documents. The editor's role was to put all information in a systematic way to present at the conference. After each presentation, groups presented their views and the teacher debriefed the important points of the presentation and asked the groups to write a report as a follow-up work.

It was observed that all students wanted to perform their role best to do the group presentation. They helped each other in sharing ideas. It was found that the role play helped the students to develop their attitudes of team spirit and several skills while improving their knowledge in a friendly, enjoyable learning environment. It was found that this technique fostered group activities and active participation of members of the group while developing their communication skills, critical thinking skills and leadership skills. Introduction of ATLAS based techniques such as role play to the school curriculum will increase the effectiveness of learning by making it more attractive and learner-centered.

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