

**TEACHER PERCEPTIONS ON TEACHER TRAINING NEEDS IN G.C.E.  
(O/L) SCIENCE: A CASE STUDY IN NORTH WESTERN PROVINCE**

W. D. Chandrasena<sup>1\*</sup>, A. C. A. Jayasundera<sup>2</sup>, and A.M.R.S. Bandara<sup>1</sup>

<sup>1</sup>Science Education Unit, Faculty of Science, University of Peradeniya, Sri Lanka

<sup>2</sup>Department of Chemistry, Faculty of Science, University of Peradeniya, Sri Lanka

\*wdchand@pdn.ac.lk

Science has been integral to improving the quality of life for human kind. Hence, science education is a valuable resource throughout the world. However, students' enrolment in science is becoming low. This situation could be due to many inter-related factors. Among these factors teacher characteristics are playing an important role in school science education. According to Self-Determination Theory teachers' intrinsic motivation is highly important to make the teaching-learning process a success. However, there is a dearth of research in science teacher motivation through various training programmes in Sri Lanka. Thus, the present study was aimed at investigating science teacher perceptions on teacher motivation and use of different methods in teaching science at G.C.E. (O/L) to make some suggestions to improve the science classroom practices. Qualitative approach was used in the data collection process through three one-day G.C.E. (O/L) teacher training programmes and the sample consisted of 150 G.C.E. (O/L) teachers in North Central Province, Sri Lanka. The sessions consisted of: Lectures; Lecture demonstrations; Discussions; Group activities; and Teacher presentations. During these sessions multi-media presentations, videos, real experiments, whiteboards and other technologies were used to empower the sessions to enhance the effectiveness. Teacher motivation session was conducted on personal and career development using biographies of scientists and different psychological aspects including motivation and positive thinking. The session on ways of effective teaching of fundamental scientific concepts included different types of teaching methods. Some of the topics discussed include acid-base concept, environmental pollution, atomic structure, iron extraction, and some biology concepts. A session on application of Self-Determination Theory in science classrooms was also held to enhance both teachers' and students' intrinsic motivation. The use of basic aspects like psychological relatedness, competence, and autonomy support was discussed with real life experiences. The teachers engaged in group activity on how to support science students and made their presentations. At the end of the programmes teachers' written feedback was obtained. Based on the teachers' feedback the identified themes on the teacher training were: (a) Conducting regular teacher motivation programmes; (b) Use of practical approach; (c) Authentication of subject content; and (d) Enhancement of teacher and student aspirations. Further, 95% of the participants had indicated that programmes were highly appropriate. Participants (90%) had stated that the