

Junior secondary science teachers' views about science teaching

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Teaching students to think is one of the most essential goals of schooling. Science adds its unique skills to fulfill this goal. Science knowledge, skills, experience, and attitudes of a science teacher play a major role in inculcating scientific thinking in students. In Sri Lankan education system, science is introduced as a subject for grade six. Therefore, this research study is an attempt to understand the above factors of the junior secondary science teachers [JSSTs] towards science teaching.

All the teachers who taught science for grade 6 students [101 JSSTs of 80 schools in Gampola zone] were selected. The sample represented a cross section of school types in Sri Lanka. This research is mainly quantitative. Quantitative data were obtained by a survey questionnaire. The survey was done as the initial step of a workshop to “Inculcate novel teaching techniques for the level of JSSTs”. Teachers’ views were questioned and discussed in depth under two groups and the outcomes were audio recorded, transcribed and coded for content analysis. Descriptive analysis of quantitative data was done by using SPSS.

Teachers were from different age groups while teaching experience varied from one to thirty five years with different educational backgrounds. From the sample, 96% of the teachers identified themselves as special and different from other teachers in the school. About 76.2% took teaching science as a challenge with positive attitudes. However 80.2% believed that they had not acquired enough experience to teach junior secondary students. Even though 71.3% had confidence about their teaching abilities, only 63.4% had clear understanding about the science concepts to be taught. Physics was identified as a difficult subject area to teach (61.4%) while 17.8% considered Chemistry is difficult too.

This research showed that teachers were enjoying teaching with positive mindset regarding alternative teaching methods and introducing innovative teaching methods. Since, 52.2% of teachers were in charge of science classes from grade six to eleven, textbook-centered teaching process is adopted due to the heavy workload. This need to be address by the Ministry of education since junior secondary students need more inquiry-base teaching system to improve their science processing skills if we hope to prepare our young children to be future science problem solvers.

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