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Assessments used in GCE Advanced Level Chemistry classrooms

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As learning of abstract concepts in chemistry is problematic for many students they tend to make efforts in earning good grades by rote learning. Seeking alternative ways to promote meaningful chemistry learning and critical thinking of students to solve many problems that exist around us with an understanding of chemistry is a necessity. Using multiple ways of assessments help students build up chemistry concepts that will help them in future use. The purpose of this study was to explore how chemistry teachers use assessments as a tool in their classrooms to facilitate students' chemistry learning.

This study was conducted in Kandy and Matale districts with fifty chemistry teachers selected by stratified random sampling. The sample consisted of teachers from three media of instruction, English, Sinhala and, Tamil. An open-ended questionnaire with questions on different types of assessments was administered to all fifty teachers followed by in-depth individual interviews. At these interviews, in addition to the questions in the interview guide, teachers were also provided with their responses to the questionnaire to receive more elaboration and explanation to what they have written. Interviews were tape recorded and transcripts were made. Six classrooms (including two from each medium) were also observed paying attention to practice of assessments. Data gathered from the open-ended questionnaire, interviews and observations were triangulated in the analysis.

It was found out that although the teachers expressed that classroom assessment is important as a part of instruction to support and enhance learning they showed minimal in-depth knowledge and understanding of various ways of doing assessments to help students' learning. This was partly due to the limited content and pedagogical knowledge. They have not used a variety of assessment techniques, strategies and tasks paralleling their conception of classroom assessments. As a result classroom assessments took a summative evaluative function rather than a formative assessment with feedback to students. It was revealed that teachers wanted to make their students as best fits to the G.C.E advanced level public examination and prioritized learning chemistry by asking questions in their classroom teaching focusing on past papers. It is recommended to provide professional development opportunities for chemistry teachers. The study provides an impetus for further and much needed study of teacher conception of assessments and teachers assessment practice in chemistry education.

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