

## ABSTRACT

### **Formative Assessment During Pedagogical Instruction in a Unit of Biology – The Use of Teacher Questioning and Feedback and Its Promotion of Conceptual Understanding and Critical Thinking**

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This study sought to investigate the nature of formative assessment in the promotion of meaningful learning, which is not an outcome of traditional summative assessment in the classroom. The investigation was conducted at a secondary school in Trinidad and Tobago, using a mixed-ability class of 20 students, whose ages ranged between 14 and 16 years. Data were collected through student journals, a questionnaire, videotapes and audiotapes of classroom interaction, and rubrics. The findings revealed various challenges and ensuing changes to the classroom environment with respect to the roles of teachers and students. It revealed the complex nature of social interactions in the classroom that fostered thinking through a web of communication.

**Keywords:** Science education; Action research; Formative evaluation; Teacher attitudes; Biology; Secondary school science; Questioning; Trinidad and Tobago