

ABSTRACT

Mentoring the 21st Century Science Teacher

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This study explored the perceptions of science of a Form 2 class of 37 students and a novice teacher before and after implementation of a programme that focused on the Nature of Science (NOS) and 21st century learning strategies. Data were collected through interviews, observations, and journal entries, as well as through questionnaires and pre- and post-tests. The results showed that the students had negative views of science because of how it was taught to them; however, their views on NOS were contemporary. The novice teacher's views on NOS were similar to the students' views but she had not been able to articulate this in her lessons because of lack of training. The intervention involved planning lessons to infuse NOS using inquiry-based, collaborative, constructivist, technology-based, and assessment strategies. The students were excited by the lessons and the post-intervention analysis revealed a major positive change in their perceptions of science. The novice teacher also responded positively to the mentoring experience.

Keywords: Case studies; Science teachers; Science education; Mentoring; Teacher supervision; Secondary school teachers; Teacher attitudes; Action research; Trinidad and Tobago