

High-school students' engagement in knowledge integration process, based on logical thinking and systems thinking

By Osher Merhav

Abstract

This research examined the engagement of high-school juniors in writing field-trip reports, while participating in an Earth sciences class. The goal was to identify factors encouraging and factors inhibiting student engagement. The research approach was mixed methods with an emphasis on qualitative data. The analysis of pre and post questionnaires and the analysis of four case studies demonstrated that most of the engagement factors were not predetermined, but rather developed during the report-writing task. In addition, half the factors were found to be affective and factors regarding the learning program and the guidance style were based on the former. These findings led to the following conclusions: (a) the process of writing the reports has the potential to influence most of the engagement factors; and (b) addressing the emotional aspects of students' coping with the task and facilitating students' self-efficacy beliefs may increase student engagement and thus promote their cognitive development. Accordingly, teachers play a major role in the process of engaging students, by attending to their students' emotions.