The texts should be formatted according to the sample abstract below.

Every text should have a title (Times New Roman Bold 18), author (Times New Roman Bold 12), department/institution author contact info, an abstract and keywords (all in Times New Roman-12).

If there are no keywords, please add them.

Please maintain the current titles.

If the authors name is not in the abstract, please add it.

If the text is only in Arabic, skip it.

How beneficial and satisfying might a flipped classroom be to high-school science education? A comparative case study

|  |  |  |
| --- | --- | --- |
| Afrah Assi  Student  Tel Aviv university  [Afrahassi@mail.tau.ac.il](mailto:Afrahassi@mail.tau.ac.il) | Anat Cohen  Researcher and Lecturer  Tel Aviv university  [Anatco@tauex.tau.ac.il](mailto:Anatco@tauex.tau.ac.il) |  |

Abstract

The flipped classroom approach has become a popular pedagogical method in many educational institutions around the world. This hybrid learning approach integrates distance learning and face-to-face meetings. It flips the traditional approach: the teacher’s lecture is delivered through online videos, while exercises and problem-solving take place in the classroom in small groups accompanied by guidance from the teacher. The purpose of the case study presented in this paper was to implement this innovative strategy in high-school chemistry education and examine the students’ overall satisfaction. Furthermore, this study investigates the impact of the flipped classroom on in-class group work, in-class social interaction, and student achievement, all in comparison with the traditional approach. Both qualitative and quantitative methods were applied and took the form of an online questionnaire along with feedback written by the students. A high level of satisfaction was reported in both the questionnaire responses and the free feedback. Many advantages and benefits were reported repeatedly in the students’ feedback, though some disadvantages were also reported and beneficial recommendations proposed. Positive and significant differences were found for all the variables tested except student achievement, for which a positive but insignificant effect was viewed. Correlations between the self-efficacy, in-class group activity, in-class social interaction, and satisfaction variables were checked and found to be positive.

**Keywords**: flipped classroom, self-efficacy, in-class social interaction, satisfaction, student achievement.