



Qatari Teachers and Students' Views and Experiences of Inquiry-Based Learning through “WebQuests and Exploratory Talk” in Science

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Abstract

We report on an international collaborative research into Professional Development (PD) to promote Inquiry-Based Learning (IBL) in Qatari science classrooms with students grades 5 to 9. The PD programme is underpinned by claims that the introduction of IBL can engage and motivate students, but we are aware that PD is not always successful in transforming teacher practice. In this conference paper we focus on the perspectives of the eight science teachers and their students using the data from interviews prior to the commencement of the PD.

Research questions:

What are teachers and students' views and experiences of introducing IBL in learning and teaching science?

How could the two didactic tools “WebQuests and Exploratory Talk” help the implementation of IBL in science classrooms?

What are teachers and students' perceived views of the stresses and challenges of the implementation of IBL in science classrooms?

Methodology:

The lifetime of the project was over three years. In this conference paper, we report on data from the beginning of Year two of the project in the form of individual interviews with the eight science teachers, and focus group interviews with their students from eight of their science classrooms, grades 5 to 9. Each class has 20—25 students and each focus group has 5-6 students and lasted for 45 minutes.

Results:

The findings reflect challenges and aspirations that add to our understanding of the potential impact on the sustainability of PD in science education.

All the science teachers referred to IBL as scientific method, to developing and testing hypotheses and to carrying out experiments. Three of the science teachers stressed the importance of directing the learning and giving students instructions on completing experiments.

Students gave contrasting perspectives in relation to learning through IBL. Several students felt they would like to discover learning themselves and become more independent. They saw a benefit in relying on their own thinking and learning from mistakes.

Keywords: *inquiry-based learning; WebQuests; Exploratory Talk and Professional Development (PD);*