

## **Abstract**

### **Palestinian Science Teachers' Beliefs of Learning: The Origins and Sources of these Beliefs**

This study was set out to diagnose Palestinian science teachers' beliefs about learning, its origins and the potential sources of these beliefs. The research main aim was to answer the following two key questions. First, What beliefs about learning Palestinian teachers hold?. Second, What are the potential sources and origins of these beliefs teachers hold?

In order to answer these key questions, a closed questionnaire was developed and distributed to the whole school science teachers in Ramallah and Al-Bireh district which consisted of 356 teachers. 248 of them filled the questionnaire. Ten teachers from the body of the 248 teachers who filled the questionnaire were selected for an interview with the aim to look at the origins and sources of their beliefs about learning.

Two main instruments were created to achieve the goals of the study and answer its questions. The first was a closed questionnaire that was established to diagnose teachers' beliefs of learning. The second one was a semi-structured interview that was created to look for the potential sources and origins of these beliefs in the body of science school teachers. Validity and reliability for both instruments was established. The questionnaire was validated by a panel of reviewers, while the interview data was checked for external reliability and gave a 0.81 percent of agreement.

The quantitative results obtained from the questionnaire revealed that half of the science teachers in the sample 59.3% demonstrated inconsistent beliefs that varied between behavioral and constructive beliefs, thus were considered to hold a mixture of beliefs. The results also revealed that only 10.1% of the whole body of teachers hold constructive beliefs, while 30.6% of them hold behavioral beliefs.

The qualitative data revealed sixteen potential sources for teachers' constructive beliefs of learning. These were: The Socio-cultural context, Previous teachers, School colleagues, University Education, Technology, Teacher own personal reflections, Personal experience, Religious beliefs, Education inspectors, Scientists, Free reading, Graduate education, Exterior training course, Exams system carried out by the Ministry of Education, School principals, Courses and other activities carried out by The Ministry of Education.

On the other hand, the study revealed fifteen sources and origins of the beliefs held by the behavioral teachers. These were: Previous teachers, School staff colleagues, University education, Technology, Mass media, teacher's own personal reflections, Personal experience, Religious beliefs, Education inspectors, Scientists, Free reading, Exams system carried out by the Ministry of Education, School principals, School education, Science textbooks structure.

Finally, qualitative data revealed thirteen sources that were shared by both constructivist and behavioral teachers as potential sources for their beliefs. These were: The socio-cultural context, Previous teachers, School staff, University education, Technology, Teacher's own personal reflections, Personal experience, Religious beliefs, Education inspectors, Scientists, Free reading, Exams carried out by the Ministry of Education, School Principals.

In light of its results, the study ended up with a number of concrete recommendations for policy makers in the Ministry of Education and decision makers there, and also for a number of related future studies in the field.