RECENT DISSERTATIONS

MARIA ÅSTRÖM, 2008

Defining Integrated Science Education and Putting It to Test

Nationella forskarskolan i Naturvetenskapernas och teknikens didaktik (FONTD), ISV, Linköpings universitet, 601 74 Norrköping.
Studies in Science and Technology Education No 26.

Abstract

The thesis is made up by four studies, on the comprehensive theme of integrated and subject-specific science education in Swedish compulsory school. A literature study on the matter is followed by an expert survey, then a case study and ending with two analyses of students' science results from PISA 2003 and PISA 2006. The first two studies explore similarities and differences between integrated and subject-specific science education, i. e. Science education and science taught as Biology, Chemistry and Physics respectively. The two following analyses of PISA 2003 and PISA 2006 data put forward the question whether there are differences in results of students' science literacy scores due to different types of science education.

The expert survey compares theories of integration to the Swedish science education context. Also some difference in intention, in the school case study, some slight differences in the way teachers plan the science education are shown, mainly with respect to how teachers involve students in their planning.

The statistical analysis of integrated and subject-specific science education comparing students' science results from PISA 2003 shows no difference between students or between schools. The analysis of PISA 2006, however, shows small differences between girls' results with integrated and subject-specific science education both in total scores and in the three scientific literacy competencies. No differences in boys' results are shown on different science educations.

<i>Language:</i>	<i>English</i>
<i>ISBN:</i>	<i>978-91-7393-770-2</i>
<i>Contact:</i>	<i>maria.astrom@edmeas.umu.se</i>
<i>Download:</i>	<i>www.ep.liu.se/smash/record.jsf?searchId=1&pid=diva2:114056</i>