
ASSESSMENT AND IBSE – OPPORTUNITIES AND CHALLENGES

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The recent trend across the EU towards competence-based teaching and learning and a learning outcome approach has resulted in significant changes occurring at school curricula level in traditional subject areas such as science. These curricula are now being treated in more engaging cross-curricular ways, with greater emphasis being placed on developing skills and positive attitudes towards science alongside content knowledge. Over the past decade many curricula changes have advocated for inquiry-based science education (IBSE) and the EU has funded several large scale projects over the past decade to promote teachers across Europe in adopting IBSE at primary and secondary level. However, a key consideration of what and how assessment should be carried out in an IBSE classroom has received less notice. It is widely reported that assessment drives classroom activities and student learning and in most current assessment practices a strong emphasis is placed on knowledge recall and less so on the development of student's skills and competencies. This presentation will discuss the SAILS – Strategies for Assessment of Inquiry-based Learning in Science – project approach to IBSE and assessment. A key starting point for the SAILS project was to review the key skills and competencies desirable for young people in the 21st Century as identified by different international sources and to map these against those developed through IBSE. The main task of SAILS was to collaborate with teachers to develop assessment strategies and materials that enable them to assess these inquiry skills and competencies in their classrooms. Through the collaborative efforts of SAILS beneficiaries across twelve European countries, over 20 SAILS units have been developed across a range of scientific topics. Each of these SAILS units presents a science topic with a rationale for a suggested teaching sequence and assessment approach, as well as the associated assessment materials. In particular, each unit has been trialled by teachers in classrooms in at least three different countries and details of how each teacher implemented the lesson(s) and the assessment strategy are provided in the form of case study reports that are included in each unit. In this way, the collection of units presents a variety of assessment modes that have been used to assess a particular inquiry skill. The focus of this presentation will be to discuss the benefits of this approach to IBSE and assessment to student learning and to highlight the challenge of achieving valid and reliable assessment of intended learning outcomes.

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