Mobile technology is now a natural part of students’ everyday lives. Owing to the portability of mobile devices and their ability to connect to the Internet almost anywhere, students and teachers are now able to integrate technology with learning both inside and outside of the classroom. Mobile technology can, if used in a good methodical manner, dramatically shape the nature of teaching, learning and social interaction.

Commercial Student Response Systems (SRS), also known as “clickers”, have allowed students to provide immediate feedback to multiple-choice questions, and inform instructors about students’ understanding over the past four decades. A traditional SRS generally includes a receiver for instructors, a collection of keypads (transmitters, or “clickers”) for students and a dedicated software component. Recent developments in mobile technology, such as wireless technologies and handheld mobile devices with high-resolution screens, have enhanced the use of Student Response Systems. This new technology may be used for in-class as well as distance training purposes.

The services and experiences obtained in seven European countries by using a new, flexible, open web-based SRS for next generation handheld mobile devices will be demonstrated during the workshop. The new services are designed for use in high schools, higher education courses as well as vocational education and training.

The workshop highlights and discusses new pedagogical challenges in the learning environment. This includes teacher lead training processes and, in particular, peer instruction processes, student lead brainstorming processes, as well as new evaluation methods for mobile devices in portfolio assessment. The workshop demonstrates state-of-the-art learning spaces, including use of pedagogical methods where SRS is the key to obtaining, verifying or elaborating on academic understanding. Furthermore, it addresses how learning increases through increased engagement and motivation, and how SRS stimulates a new type of in-class academic discussion.

**Proposed Agenda**

This workshop will showcase the new SRS in the form of interactive demonstrations, where workshop participants use handheld units such as iPods to submit responses. Multimedia will be used to highlight and exemplify those teaching challenges,
which the SRS is designed to address. This includes how to promote interaction between the teacher and students in larger groups. We will also address how the combination of multimedia and SRS can be used to stimulate academic discussion in class, for instance as a part of problem-based learning in vocational education and training.

Sør-Trøndelag University College as well as a partnership between educational institutions in seven countries have been using this SRS for more than 12 months in a variety of educational environments (classrooms, conferences, education in large and small groups of students, as well as e-learning). The workshop will demonstrate how easily and quickly the system can be operated. The new SRS features an intuitive control interface with which instructors can easily get to grips. In addition, the workshop highlights the methodological practices involved in using an SRS. The key factors are the teacher’s role and the challenge of designing good quiz questions. In order to demonstrate the flexibility of the system, voting sessions will be run on several platforms. Last but not least, the workshop will highlight the new pedagogical aspects of using an SRS to enhance active learning and increase motivation among students. Participants will also discuss the implications of SRS in their own institutions and workplaces.

**Target Audience**

This hands-on workshop is relevant to teachers, instructors, educators, managers, academics and policy planners who recognize the need to enhance interactive teaching and learning in high schools, higher education or vocational training through the use of state-of-the-art mobile learning solutions. The workshop will be valuable for individuals seeking to learn practical ways of discovering and presenting mobile learning futures through interaction and collaboration.

**Requirements**

No prior knowledge is required. The workshop is targeted at beginners.

**Aims**

Workshop participants will gain an insight into how modern mobile devices can be used to address several pedagogical challenges in various types of learning environments:

- how to engage students;
- how to promote student interaction during classes, and;
- how to enhance teacher-student interaction (active learning).
Gabrielle Hansen-Nygård

Gabrielle has a master degree in social psychology (2008) from The Norwegian University of Sciences and Technology (NTNU), the subject of which was Student Response Systems (SRS). The main focus of the master thesis was learning methods, especially how to use such a system in a training setting and students’ experiences and learning outcomes. She was a part of a research team at NTNU who implemented one of the first student response systems in Scandinavia.

She has been a research assistant at Sør-Trøndelag University College since August 2009, and has been participating in 5 ongoing European-funded projects. She has during the last 9 months given several presentations about student response systems for modern mobile devices at many international conferences, and published 6 articles on mobile learning. She was in charge of coordinating the use of the system at a large national conference. In addition she has been responsible for several training courses in Norway, Sweden, Slovenia, Slovakia and England, where she has been training teachers on how to use modern mobile devices in different training settings and environments.

She has participated in the planning and testing of SRS in classrooms, in addition to evaluation and methods development. She has performed several surveys, mainly focus group interviews and questionnaires, and evaluated the testing of the SRS that has been done so far at Sør-Trøndelag University College. She has also contributed to the technical development, but from a learning point of view. The feedback she has received from the students, combined with her background from psychology, has had a big impact on the technical development of the system.