

# R&D-based professional education – experiences from evaluations of teacher, engineering and pre-school teacher education

**By law, all Norwegian higher education should be based upon research, development work and professional experience (termed R&D-based education). Assessment of this educational aspect constitutes an important part of NOKUT's accreditations and evaluations.**

## Summary

NOKUT has previously undertaken evaluations of three major professional higher education programs – teacher (2006), engineering (2008) and pre-school teacher education (2010) - representing altogether 59 separate (local) study programs. This report presents aggregated information on different aspects related to R&D-based education as evident from the evaluations. These aspects include different interpretations, ways of realisation and experiences with respect to R&D-based education. The report also presents analyses of correlations between input factors and the R&D profiles provided by the higher education institutions, and the assessments of quality of the R&D based education.

## Main results presented in the report:

- The proportion of academic staff with professor qualifications correlates with the assessments of quality. Similar correlations were not found for other input factors by many assumed to be crucial – the total number of staff associated with study programs and the staff's available time to carry out their own R&D. Taken together, this indicates that the staff's general R&D-competence is more important for quality in R&D-based professional education than the specific R&D carried out by individual teachers.
- The R&D profiles provided by the institutions correlate with the quality assessments. Local study programs obtaining the most positive assessments are characterized by a R&D profile which is closely connected to the field of professional practice. In the evaluations, this kind of R&D profile has been characterized as providing a better foundation for R&D-based professional education than basic and/or disciplinary research.
- The majority of local study programs use definitions of R&D-based education that closely resemble a traditional interpretation of research-based teaching, where the individual teachers own research competence and research activity are the main factors. Here, the responsibility for R&D-based education is primarily placed upon the teachers as individuals. These programs are also characterized by a lack of systematic efforts to connect R&D with education in a manner aimed at enhancing the quality of education.
- A minority of local study programs use interpretations of R&D-based education which instead focus on student learning and student's own work. These programs have been more successful with respect to describing how R&D-based education may contribute to achieving goals for quality in education that are closely connected to relevance for professional practice.

Connections between R&D, R&D-based education and quality of education are discussed in the report. It is argued that a broad understanding of the R&D-base and the term R&D-based education may provide a better foundation for preparing the students for future professional practice, increase professional relevance and thus the quality of education.