

## **Abstract**

The Swedish National Agency for Higher Education (the Agency), established in 1995, has the national responsibility for quality assurance of higher education through quality evaluation of first, second and third cycle study programmes. The Agency is also responsible for the appraisal of higher education institutions entitlement to award qualifications. This paper, will however, focus on the system for quality evaluations of first and second cycle programmes. A model, focusing on student attainment of the learning outcomes specified in the Higher Education Ordinance was introduced in 2011.

The question is: Can results of an academic study programme be measured? If yes: how can that be done? And last, but not least: is this European quality assurance of the 21<sup>st</sup> century?

## **The relationship between quality assurance and what students really know and can do after a period of study. Assessing achieved learning outcomes in an external quality assurance system**

Karin Järplid Linde, Assistant Head of Department & Maria Sundkvist, Head of Department, Swedish National Agency for Higher Education

The Swedish National Agency for Higher Education (the Agency), established in 1995, has the national responsibility for quality assurance of higher education through quality evaluation of first, second and third cycle study programmes. The Agency is also responsible for the appraisal of higher education institutions entitlement to award qualifications. This paper, will however, focus on the system for quality evaluations of first and second cycle programmes. A model, focusing on student attainment of the learning outcomes specified in the Higher Education Ordinance was introduced in 2011.

The question is: Can results of an academic study programme be measured? If yes: how can that be done? And last, but not least: is this European quality assurance of the 21<sup>st</sup> century? But first, some background information.

## **Qualifications Frameworks in Sweden**

Higher education in Sweden is to a large extent regulated by the Higher Education Act and the Higher Education ordinance. In 2007 major changes were made in order to align the Swedish qualification system with the Bologna Process and the Qualifications Framework of the European Higher Education Area (QF-EHEA) adopted by the ministers in Bergen in 2005. A National Qualifications Framework was established, and as from 1 July 2007

all qualifications are defined in terms of learning outcomes and workload. Each qualification is ascribed to one of three cycles: first, second and third. The requirements for each cycle are specified in the Higher Education Act and correspond to the QF-EHEA. In line with the Bologna Process and the goal of increased employability for students, qualification descriptors were introduced with specified outcomes of what "a learner is expected to know, understand and/or be able to do at the end of a period of learning"<sup>1</sup>. These qualification descriptors<sup>2</sup> have become a very important tool, or you might say, *the tool*, in quality assurance of higher education in Sweden.<sup>3</sup>

## Quality Assurance in Sweden

### An ideological approach

In March 2010 the Government presented the bill *Fokus på kunskap* –

*kvalitet i den högre utbildningen [Focus on knowledge - quality in higher education]*

which was enacted by the Riksdag on 3 June 2010.<sup>4</sup> According to the government, greater autonomy should be given to the higher education institutions.<sup>5</sup> One important consequence was that the institutions should take full responsibility for the development and quality assurance of their activities. The national quality assurance system, for which the Agency is responsible, was no longer to focus on the internal processes of the higher education institutions, but on the results of courses and study programmes. The National Agency was to assess to what extent the students' achieved learning outcomes correspond to the intended learning outcomes laid down in the qualification descriptors specified in the Higher Education Ordinance. This shift in focus, from external quality assurance of the internal processes of the higher education institution to results has led to a clear division in labour between higher education institutions and the national quality assurance agency. Nevertheless, this seems to be an untraditional way of looking at external quality assurance in Europe today.

### Focus on excellence

In previous systems for external quality assurance in Sweden, excellence has not been rewarded. No differentiation has been made between higher education institutions whose programmes barely achieve expected standards and those whose programmes

---

<sup>1</sup> Page 166, A Framework for Qualifications of the European Higher Education Area, Ministry of Science, Technology and Innovation, Denmark, 2005.

<sup>2</sup> The qualification descriptors can be found in Annex 2 to the Higher Education Ordinance (1993:100), the Annex to the Ordinance for the Swedish University of Agricultural Sciences (1993:221) and the Annex to the Ordinance for the Swedish National Defence College (2007:1164).

<sup>3</sup> Govt. Bill *Ny värld – ny högskola [New world – New university]* (2004/05:162) pp 99.

<sup>4</sup> Govt. Bill *Focus on knowledge – quality in higher education.* 2009/10:139, bet. 2009/10:UbU20, rskr. 2009/10:320.

<sup>5</sup> Govt. Bill *En akademi i tiden [Academia for this day and age- greater freedom for universities and other higher education institutions]* (Govt. Bill 2009/10:149).

produce excellent results. In the Government's view, this is not reasonable. Therefore, higher education institutions with high quality programmes reward increased funding. The evaluations provide a basis for the Government's allocation of a small percentage of that extra funding. In 2013, the increased funding will be a total of 9 500 000 euros.

So far 533 programmes, at both first and second cycle, has been evaluated. 76 (14 %) of the programmes were given very high quality, 328 (62%) high quality and 129 (24 %) inadequate quality.

### **The evaluation model 2011 – 2014 – how does it work?**

In the peer review based quality evaluation system that was introduced in 2011, the Agency assesses the outcomes of study programmes. This is done by appraising the degree to which the students achieve the outcomes laid down in the qualification descriptors. The National Agency assesses the extent to which the students' achieved learning outcomes correspond to the intended learning outcomes. For each evaluation there is peer review team, also including students and representatives from adequate branches. The team makes a selection of the outcomes listed in the Higher Education Ordinance on which to base the subsequent assessment of the material. As the outcomes vary in numbers and complexity, the Agency has set up guidelines for the selection procedure in order to assure equivalence in the evaluations. The team suggests a selection of outcomes which are discussed with the higher education institutions before a final decision is made by the Agency.

### **What kind of information is used?**

Four different assessment factors are taken into account: the students' independent projects (degree projects), the higher education institution's own self-evaluations, questionnaires sent to previous students and the students' impression of the outcomes of their programmes of study in relationship to the outcomes laid down in the qualification descriptors. The students' independent projects together with the learning outcomes accounted for in the self-evaluations provide the main basis for the overall assessments.

### **Students' independent projects**

When the Bologna reform of higher education in Sweden was implemented in 2007, the requirement of an independent project (degree project) for the award of virtually all qualifications (except one) was introduced. The result of the independent project is seen as one way of confirming that students have achieved the sum of the intended outcomes. About 10 -25% of the total time in the programme is dedicated to the project. Most of the project courses are at the end of the programme. Therefore, in the national quality assurance system, assessment of a

selection of anonymised independent projects is important to ascertain student attainment in relation to intended outcomes as indicated in the qualification descriptors. According to a statistical model a random selection of a maximum of 24 and a minimum of 5 projects from each study programme is assessed. This appraisal is not a review of individual students but a means of assessing the results of a study programme on the basis of the outcomes laid down in the qualification descriptors. *It is the aggregate quality of a programme's independent projects that is to provide the basis of the evaluation and not specific excellent or poor productions.* Thus, it is an important part of the process, as it is a clear indication of the extent to which students have attained the expected academic outcomes. However, the importance of these projects varies between the different programmes, however, and they are sometimes relatively minor when it comes to some of the professional degrees, which must be taken into account in the evaluations. In these cases the other assessment materials, especially the evidence of outcome attainment in the self-evaluations become more important.

### **The higher education institutions' self-evaluations**

The self-evaluations submitted by the higher education institution serve two purposes. The first is to enable a broader and more comprehensive presentation of outcomes than a selection of independent projects can offer. In their self-evaluations, therefore, the institutions should present, analyse and assess the outcomes attained in relation to all the outcomes to be taken into account in the evaluation. *They should include specific evidence that outcomes are attained rather than references to plans, conditions and processes.* Evidence may be presented in terms of summaries and analyses (with illustrated examples) of student's essays or laboratory reports. The institution's own analysis of the independent projects may also be used. Some reference to prerequisites and processes may, however, be presented to demonstrate how the institution guarantees student attainment of these outcomes.

Secondly, circumstances that have manifest significance for the results of a programme, e.g. the qualifications of teachers and their availability, as well as students' preconditions, can be taken into account.

### **Students' experiences**

Students' experiences are collected in interviews with students approaching the end of their studies. The aim is to find additional evidence regarding the extent to which the programme contributes to their attainment of its intended outcomes as indicated in the qualification descriptors. The outcome of the interviews is mainly used as a basis for further questions during the interviews with higher education institutions.

### **Alumni questionnaires**

Questionnaires for alumni are intended to provide information about whether a programme attains the outcome of usefulness in the labour

market. They may also provide indications about whether those now employed consider that they attained the intended outcomes. The questionnaires are sent primarily to those who graduated two years prior to the evaluation, who can be assumed to have gained labour market experience, while at the same time their studies are not too distant. Questionnaires are sent to no less than 20 alumni. A response rate of at least 50 per cent is required for results to be considered reliable. We have had methodological problems with the questionnaires, related to study programmes with few students and students leaving Sweden after graduation. Therefore, as from 2013, questionnaires for alumni will no longer be used.

### **A three-level scale for the overall assessment**

The overall assessment of an evaluation is presented on a three-level scale:

1. *Very high quality: the study programme displays a very high degree of achievement of outcomes*
2. *High quality: the study programme displays a high degree of achievement of outcomes*
3. *Inadequate quality: the students attending the study programme do not achieve all outcomes*

The panel submits its overall assessment of each study programme to the Agency using the three-level scale. This evaluation must clearly indicate how well the students are considered to have achieved the outcomes evaluated. The grounds for each evaluation must be provided by the panel. On the basis of the assessment panel's report, the Agency reaches a decision on the overall assessment to be awarded to each programme of study.

Those that are given the overall assessment of *Very high quality* or *High quality* are considered to have attained the quality standards for higher education. Those that fail to attain the required standards are given the evaluation *Inadequate quality*, in which case the Agency extends the higher education institution's entitlement to award the relevant qualification conditionally. These programmes will then be reviewed within the following year before the Agency decides whether or not the entitlement should be revoked.

A small percentage of the higher education budget provided by the Government is reserved for institutions with programmes that display *Very high quality*. This funding will be made available as from 2013, after the first results of the four-year cycle have been presented.

### **Some positive side effects**

The evaluation system will contribute to increased knowledge and awareness of the national qualification descriptors. What we have seen so far is that higher education institutions review how intended learning outcomes for individual courses are linked to the qualification descriptors.

Higher education institutions have been seen to work harder to improve their internal quality assurance. For example, they do their own pre-evaluations, in particular when it comes to the assessment

of independent projects. In some cases institutions have decided to close down a programme facing the results from evaluation.

## Challenges

### A minimum of five independent projects for the programme to be evaluated

In an output oriented evaluation system where student's results are an important part of the assessment, the independent project has proved to be a key element in the evaluation process. A random selection of between 5 and 24 independent projects is appraised for each programme evaluated. No programmes with less than 5 independent projects will be part of this evaluation system. How they will be evaluated, remains to be decided.

### An output oriented self-evaluation

The most important part of the self-evaluation is where the higher education institution has the opportunity to present, analyse and assess the outcomes achieved in relation to the targets in the qualification descriptors. A minor part of the self-evaluation treats prerequisites, such as teacher qualifications. This shift, towards an output oriented self-evaluation has caused difficulties for the higher education institutions as to how to present evidence of attainment of outcomes. Student's intended learning outcomes are usually unproblematic to describe, but how is evidence of the actual achievement presented in a self-evaluation? This has been one of the key issues for the higher education institutions in the self-evaluation process.

### Are we assessing students more than programmes?

This is probably one of the most frequent criticisms of the evaluation system. To us, it is obvious that if the qualification descriptors, established in line with the QF-EHEA, are to be at the centre of the evaluation processes, it is necessary to include students' actual goal attainment in the evaluation process. And, as has already been stated, the appraisal of the students' independent projects is not about redoing the work of the examiner, but to look for goal attainment in relation to the outcomes in the qualification descriptors. It is the aggregate quality of the programme's independent projects that is to provide the basis of the evaluation and not specific excellent or poor productions. The panel assesses the degree of outcome achievement in the independent projects, in the self-evaluation or in any of the other assessment material. This evaluation system is not about assessing students, but putting student knowledge and employability at the heart of quality assurance.

## Concluding remarks

Now, back to the initial questions: yes, we believe this can be done. We also believe that this external quality assurance system helps the higher education institutions in the quality enhancement of the programmes they offer. We have made 533 evaluations so far

and continuous review will help us learn and develop best practice. We evaluate learning outcomes in line with the Bologna Process for the sake of the students and increased employability.

## References

*A Framework for Qualifications of the European Higher Education Area* (page 166). Ministry of Science, Technology and Innovation, Denmark, 2005.

*Academia for this day and age- greater freedom for universities and other higher education institutions*. Government Bill 2009/10:149.

*Focus on knowledge – quality in higher education*. Government Bill 2009/10:139, bet. 2009/10:UbU20, rskr. 2009/10:320.

*General Guidelines for Self-Evaluation in the Swedish National Agency for Higher Education's Quality Evaluation System, 2011-2014*. 2011:11R. Swedish National Agency for Higher Education 2011.

*New World – New University* (page 99). Government Bill 2004/05:162.

*Swedish Code of Statutes (SFS) No. 1992:1434, Higher Education Act*. Ministry of Education and Research, Sweden ([www.hsv.se/lawsandregulations](http://www.hsv.se/lawsandregulations)).

*The Swedish National Agency for Higher Education's quality evaluation system 2011-2014*. 2011:3R. Swedish National Agency for Higher Education 2011.