

Learning Outcomes in Quality in Education and Training

WP2

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1. Introduction

In June 2009, the Council of the European Union and the European Parliament decided to establish the European Quality Assurance Reference Framework for Vocational Education and Training (EQARF). The reference framework is intended to improve the quality of vocational education and training and to increase transparency and consistency in the development of vocational education and training policy between Member States. The idea is that EQARF will support quality in the introduction of EQF, ECVET and the common European principles for identification and validation of informal and formal learning. EQARF will assure quality and improve vocational education and training through a process consisting of planning, implementation, evaluation/assessment and review/revision of the study programme. The intention is that by June 2011 at the latest the Member States will have developed a strategy to improve the quality assurance systems wherever necessary. In order to develop EQARF, a network was formed at European level in 2010. Sweden is represented in the network by a representative from the Ministry of Education and Research, a representative from the Swedish Schools Inspectorate as well as an 'observer' from the National Agency for Education. The representatives from the Ministry and the Swedish National Agency for Higher Vocational Education are also part of the user group. The Swedish Schools Inspectorate has also been appointed as the national reference point in Sweden (Quality Assurance National Reference Point, QANRP).

The National Agency for Education in Sweden (*Skolverket*) has published general guidelines in career education and guidance that provide recommendations on how relevant statutes (laws, ordinances, rules and regulations) can be applied.

The guidelines indicate how one can or should act, and aim to influence developments and promote uniformity in the application of legislation. They should therefore be followed unless the municipality and school can show that education is conducted in another way that fulfils the stipulated demands. General guidelines are followed by comments that are intended to clarify the advice given, based upon research on career guidance, assessments and verified experience. The general guidelines and comments are intended to give school providers and planners a foundation for their work to plan, organize and implement career education and guidance for students in compulsory school, upper secondary school, upper secondary vocational education and adult education. They can also serve as support for municipalities and schools in assessing the quality of their own career education and guidance, as well as for the Swedish National Schools Inspectorate. In addition, an assessment tool with quality indicators for career education and guidance (BRUK) has been developed.

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The activities of the Swedish Schools Inspectorate consist of several different facets. Here is a short description of them. Our overall objective is to help engender good education in a safe environment.

The commission of the Swedish Schools Inspectorate

It is the principal organizer of a school, that is, a municipality or the operator of an independent school, which is responsible for its quality and results. The role of the Swedish Schools Inspectorate is to monitor and scrutinize. In connection with these supervisory and quality auditing activities, the Swedish Schools Inspectorate provides advice and guidance as to what a school needs to rectify on the basis of the requirements of legislation.

Anyone may make a complaint

Anyone, for example parents and students, may report grievances to the Swedish Schools Inspectorate. These might relate to degrading treatment or support a student should have been given, but also to other problems. The Swedish Schools Inspectorate investigates these matters and makes a decision as to what the school needs to do.

The Child and School Student Representative

The Child and School Student Representative, BEO, has an independent role at the Swedish Schools Inspectorate. BEO is appointed by the government to come to a decision about complaints relating to degrading treatment in schools. BEO may, on behalf of a student, call for damages from the principal organizer and pursue these matters versus municipalities and independent principal organizers. BEO also has an informative role with regard to legislation governing the protection of children and students against degrading treatment.

Regular supervision

The Swedish Schools Inspectorates conducts regular supervision of all municipal and independent schools, from pre-school to adult education. Activities are scrutinized on a number of points. The decision states in which areas a school is failing to meet national requirements. At a seminar with those responsible from the municipality and school, discussions about the areas where improvements are needed is held.

The Swedish Schools Inspectorate may make use of penalties and apply pressure so that a principal organizer rectifies its activities. If the principal organizer does not take action or seriously disregards its obligations, the Swedish Schools Inspectorate may to decide to impose a conditional fine or measures at the principal organizer's expense. In the case of an independent school, its license to operate may be revoked.

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Quality audits

Quality audits deal with well-defined areas, for example a special matter or problem area within the school. Every school scrutinized receives a decision about what it needs to develop and improve in that area. The experiences gained, also good examples, are summarized in a joint report which other schools will also find instructive.

Licences and applications

A licence is necessary to be allowed to start or extend an independent school. The Swedish Schools Inspectorate makes decisions about these licences and also follows up that the school starts in accordance with the licence conditions. The Swedish Schools Inspectorate also receives applications from schools, independent as well as municipal that want to conduct some of their lessons in English, operate compulsory school education without applying the timetable or implement proficiency testing from year 4.

2. Developments in Quality Assurance Management

One of the tasks of the Swedish National Agency for Higher Education is to evaluate the outcomes of courses and programmes. Outcomes is used here to refer to how well the specific courses and programmes comply with the requirements laid down in the Higher Education Act and in the qualification descriptors in the ordinances linked to it. The Swedish National Agency for Higher Education's evaluations will assess to what extent students' achieved learning outcomes correspond to the *intended* learning outcomes. The evaluations are carried out by external panels of experts that include both subject specialists and representatives of students and the labour market. Their appraisals are based on the students' independent projects (degree projects), the higher education institution's own self-evaluations, questionnaires sent to alumni and the students' impression of the outcomes of their courses and programmes in relation 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 evaluations. A three grade scale is used for these overall evaluations and a small proportion of the funding allocated by the government may be based on them.

Courses and programmes that fail to meet the quality requirements for higher education are given conditional extension of their entitlement to award a qualification. After one year the Swedish National Agency for Higher Education conducts a review of this conditional extension and then decides whether or not this entitlement should be revoked completely.

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A new quality assurance system from 2011

The new quality assurance system started in January 2011. In *Focus on knowledge — quality in higher education (Government Bill 2009/10:139)*, the Government proposed changing the direction of the national quality assurance system for higher education institutions to meet the new demands that are based on the goals of greater freedom, internationalisation and high quality. It should be a quality assurance system that strengthens the incentives to achieve high standards regarding learning outcomes of study programmes. Universities and higher education institutions that have study programmes of high quality will be rewarded through increased appropriations.

The Government considered that these three assessment criteria should be included when evaluating study programme outcomes:

1. the students' degree projects,
2. the self-evaluations of higher education institutions in combination with site visits, and
3. questionnaires sent to alumni and students.

3. Legislation, Regulatory and institutional arrangements

In Sweden, the parliament (Riksdagen) and government have legislative responsibility for education. Respectively all public education comes under the jurisdiction of the Ministry of Education and Research (Utbildningsdepartementet). This ministry is responsible for preschool education, childcare for school children, compulsory school, upper secondary school, independent schools, adult education, liberal adult education, post-secondary education, universities and university colleges, research and student financial assistance. Therefore also the vast majority of vocational education and training system in Sweden falls under the responsibility of the Ministry of Education and Research. There are a few exceptions; for example the Ministry of Agriculture, Food and Fisheries (Jordbruksdepartementet) is responsible for University of Agricultural Sciences, Ministry of Employment (Arbetsmarknadsdepartementet) is responsible for employment training, and the Ministries of Defence and Justice are responsible for training of officers and police

4. Stakeholders involvement (State of play)

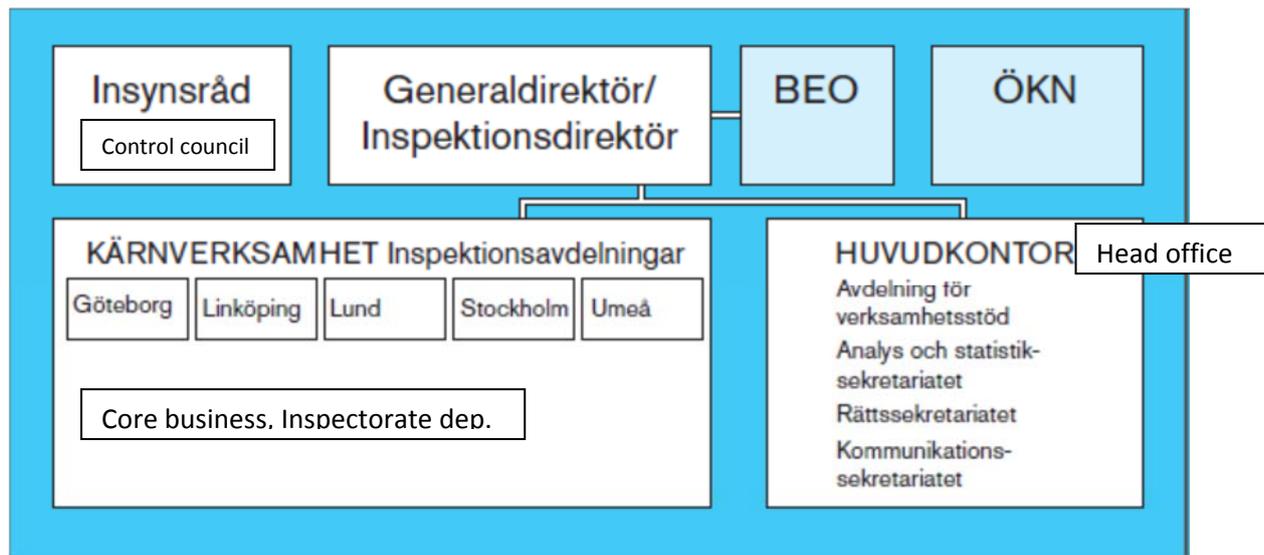
School Inspectorate's core activities are conducted in five regional inspection departments under one headquarters, consisting of a section for business support, analysis and statistics secretariat, a legal secretarial and communication Secretariat. From August 2012, the analysis and statistical issues formed an independent secretariat headquarters in order to strengthen the strategic function is to ensure the quality of methods and approaches in the authority audits.

Within each inspection department there are two to three units that work with regular supervision and quality control. Furthermore, on each inspection department there is a unit that handles notifications. The inspection department in Stockholm is also the functional authority for licensing.

Head office department for operational support includes devices for human resources, finance and IT.

BEO, Child and School Student Representative, is a part of the Schools Inspectorate, but they are also independent in their decisions. ÖKN, The Board of Appeal for Education, is an independent authority which the Schools Inspectorate's host agency.

Fig 1: Organization 2012



5. Methods and good practices developed

Supervisory and quality

Supervisory and quality hold three activities; regular maintenance, notifications and quality control.

Regular supervision

Regular supervision involves a review of the schools to see if they comply with the laws and regulations applicable to its business. The review is based on the Education law, regulations, curricula and other provisions that schools are required to follow

In the regular supervision all schools are visited in a period of five years. The Schools Inspectorate has oversight responsibility for adult education, elementary and secondary school. The Schools Inspectorate examines both independent and municipality schools. Supervision model is based on a risk and materiality analysis in which the choice of visit is based on the school's needs. In the schools where the activity initially identified as functioning authority makes a base visit. In the schools where the analysis indicates a less efficient school or where the image of the school is unclear, the authority makes a more extensive visit.

Monitoring of completed supervision

When the Schools Inspectorate have criticized a school, business or principal, the authority follows up the measures they have taken and the development the principal has undertaken. The monitoring is to ensure that schools, businesses and principals are executing the actions

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to be taken. Monitoring shall take place within three months or in exceptional cases after longer time, but no later than twelve months.

First-Time Supervision

The Schools Inspectorate carries out an inspection of a newly independent school during the school's first year of operation, first-time supervision. In previous years, this accounted for as follow-ups in the section for licensing but is now in the supervisory process as first-time inspections.

Prior to a school starts operations it is the subject of a so-called establishment control, this is done to ensure that the independent schools that received recognition has the potential to conduct training to meet the school statutes from start.

Notifications

Entries are often made by parents who are unhappy or concerned about their child's school situation. A notification is usually about the school situation for an individual student. This may for example involve degrading treatment or if the student does not receive the support it is entitled. In some cases, notifications are of more general weaknesses in a business or that of a principal. Matters subject to abusive treatment are dealt with at both the School Inspectorate regional inspection units and of Child and Student representatives.

Performance review

Quality Audits are carried out in order to examine the quality of the school system in a defined area. It also aims to demonstrate the special development areas and to convey experiences from audits to contribute to development in the educational system. The Authority shall examine the areas where there is the risk that the children's and the students best is ignored. Assessments of quality based on the constitutions requirements and with the support of research and experience in the relevant audit area.

The examinations are divided into two main types, topic audits and thematic audit solutions. In topic audits the focus is on the primary and secondary schools in the first place and it is mainly the topic teaching quality that is under scrutiny. The thematic audits may instead affect all types of schools, from preschool to adult education and has so far focused on key quality elements or parts of the training where businesses find it difficult to reach the targets.

How Schools Inspectorate communicates their results

Making decisions, design reports, and communicate these to the concerned schools and principals is the most important communication to the Authority.

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The regular supervisory and quality, each examined school and principal beyond a written decision including verbal feedback.

Within the regular supervision there is a feedback seminar in each audited municipality, which is designed to accommodate advice and guidance based on what the School Inspectorate has seen in the audits.

The quality audit is produced, in addition to audit decisions, the summary of the observations made in a thematic quality audit report. This is communicated to review to the audited units, and also to other schools and principals. In 2012, the Agency introduced webinars - seminars via the web - based on quality control reports.

6. Results and future trends

Education of the population

Close to half the population is expected to have post-secondary education in 2030. The level of education in Sweden has risen gradually during the last two decades. It appears that the change will also continue during the forecast period but at a somewhat slower rate. The proportion of people with compulsory school or folk school as their highest level of education has decreased by about 50 per cent since the beginning of the 1990s and is expected to continue to decrease up to 2030. The proportion of those with upper secondary education is at about the same level as in 1990, but is expected to decrease somewhat in the future.

In 2030, it is predicted that 43 per cent will have upper secondary education as their highest level of education. Today 37 per cent of the population aged 20–64 has some form of post-secondary education. In 2030 the corresponding proportion is expected to be 46 per cent. The future supply of educated persons is based on the principle that the educational system remains unchanged during the forecast period, and that the educational choices of people and the percentage that complete their education do not change.

The difference between the sexes is increasing

The level of education of women is on average higher than that of men, and the difference will increase if the current trend holds. Today 32 per cent of men and 41 per cent of women aged 20–64 have post-secondary education.

According to our calculations, the corresponding proportions will be 40 and 54 per cent respectively in 2030.

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The total demand for labour is expected to increase by nearly 340 000 persons, or 8 per cent, between 2009 and 2030. The demand will increase for those with upper secondary as well as post-secondary education. However, the demand for persons with only compulsory or folk school education will drop sharply. Up to 2030 the demand for this group will decrease by nearly 230 000 persons or 43 per cent.

The demand for persons with upper secondary education is expected to increase by roughly 125 000 persons or 6 per cent. This demand is mainly expected for persons with healthcare education; the increase for this group will rise to about 50 per cent up to 2030. However, the demand for those with upper secondary education in trade and administration is expected to drop by about 20 per cent.

The largest growth in demand is expected for labour with post-secondary education, or nearly 435 000 persons corresponding to 27 per cent. The demand for persons with post-secondary education will increase in all areas, but above all in the area of healthcare and the areas for social science and technology.

With this increase in demand it is essential that quality and quality insurance in vocational education and training keep up with this expected increase in demand to ensure the rightful position on the labour market for the people attending in VET.

Trends and forecasts 2011

Trends and Forecasts 2011 present estimates of demand and supply of trained and educated people of all kinds. For 55 groups of education there is given a detailed presentation of the labour market situation today and prospects for the future. The report also describes how the population composition in Sweden will change in the future and how this affects the dependency ratio of those of working age. In addition to this a picture of how employment can be developed in different parts of the labour market is shown.

The purpose of the Sweden statistics (SCB) calculations is to assist the

- education planners
- guidance counsellors
- investigators
- teachers
- researchers
- journalists
- students

... and others who want to orient themselves within the educational area and the labour market.

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7. Quality assurance qualifications

Quality Assurance

The Swedish National Agency for Education (Skolverket) is the central administrative authority for the Swedish public school system for children, young people and adults. It steers, supports, follows up and evaluates the work of municipalities and schools with the purpose of improving quality and the result of activities to ensure that all pupils have access to equal education. At advanced level the Authority for Advanced Vocational Education (KY) has the task of securing the quality of the qualified training.

In regard to quality, on its website, The Swedish National Agency for Education gathers and publishes statistics and reports the numbers of pupils and their performance at a provider, municipal, and national level depending on the data and also provides analytical reports as well as guidance documents that contribute to quality assurance. By regulation, municipalities and schools must submit quality reports for which content guidelines are provided. The Swedish National Agency for Education has also developed a tool "BRUK" to support the assessment and development of quality that uses indicators. Furthermore an award for school quality has been developed to encourage quality improvement. For advanced vocational education, KY has published its approach to quality assurance in December 2007. It does not contain indicators, but rather offers advice on the different important aspects to be included in a quality assurance system.

It is the task of Swedish National Agency for Higher Education (Högskoleverket) to review the quality of higher education. This work includes:

- Evaluating subject areas (main fields of study) and study programmes
- Granting degree awarding powers

Purpose of quality assurance

- Individual students have the right to demand that their course or study programme is of a high standard.
- Employers in the public, private and voluntary sectors have a need for highly trained graduates.
- The general public is entitled to be assured that high levels of taxation result in high standards.
- In a global world, Swedish higher education must retain a high standard.

European perspective

The Swedish National Agency for Higher Education's quality assurance policy has been developed in accordance with the European Network for Quality Assurance's (ENQA)

8. Quality assurance qualifications relevant to VET quality managers

Internal quality assurance

The Schools Inspectorate works with a process-oriented approach where the process is controlled and monitored in order to improve efficiency and increase the equivalence of work and decisions. Process compliance is continuously monitored in the processes.

The Schools Inspectorate's core business is conducted within four processes. During the year, work has begun to identify the information needs of the processes. The work has two purposes: first, to ensure that relevant information does not fall between the processes, and therefore not dealt with, and partly to refine the processes using information from others. This work will be completed in spring 2013.

Quality assurance during investigations is carried out according to specific procedures within the different processes. Each department is responsible for quality assurance routines organized so that a high equivalence and quality in all decisions can be ensured. In a memo, Guidelines for quality assurance reports and supervisory decisions are the starting points for quality assurance as well as principles and role descriptions, etc.-described. From memos it is shown that the regional departments responsible for the quality assurance process are organized so that the goals of the process can be met. The process includes mandatory elements described in the memo. The department's focus has been to increase process compliance and as far as possible to comply with quality assurance system that is built into the processes. How these are chronologically arranged and in what way this is determined takes place at section level.

Here are some examples.

Quality assurance is both preventive and continuous carried out as post-verifications. The preventive quality assurance is, for example done through regular practice discussions, joint briefings and training. This applies to assessments, method and process compliance. On-going quality assurance is carried out through systematic quality controls during the work, such as cross-reading and presentations. All decisions are quality assured at several levels. Examples of ex-post controls are that managers together with department lawyers are conducting systematic sampling of decisions and documents. Another element in the department's overall quality work is the evaluation of the work of the respective processes to identify areas for improvement.

Other examples of departmental activities for quality assurance are that the assessment seminars organized with a view to how the assessments are raised to the process level. To make further efforts

for a closer collaboration between enforcement of notifications and interventions for faster decision making with at least maintained quality.

9. Learning outcomes that can be transferred while practicing Quality Assurance in VET

(See appendix 1)

Quality assurance with the EQARF model

EQARF, European Quality Assurance in Vocational Education and Training is an EU cooperation to promote quality assurance in Training in Europe. The definition of quality assurance EQARF uses is general and applies also to qualify vocational and polytechnic:

"Activities involving planning, implementation, evaluation, reporting and quality improvement undertaken to ensure to education (content, curriculum, assessment of learning outcomes etc.) meet the quality standards that match stakeholder expectations."

EQARF has developed a quality cycle for Quality Assurance based on four steps.

Planning - Establish clear and appropriate targets. In this step, formulate education purposes, guidelines for procedures and guidelines for results.

Implementation - Establish procedures to ensure compliance goals and objectives (e.g., development of partnerships, stakeholder involvement, resource allocation and organization / procedures).

Evaluation - Develop mechanisms for evaluating the performance and outcomes by collecting and processing data to make informed judgments.

Review - Develop approaches to achieve desired results and objectives. Once feedback has been reviewed discuss and analyse stakeholders' results in order to implement changes.

The management team contributes to quality assurance of training content

The Executive Team is to control education by pulling up guidelines for the content and objectives and make critical strategic decisions. Education providers participating in the survey highlights repeating the training management team as the main community to ensure the quality of educational content leads to a relevant professional role.

Especially when working with the representatives of the management team to contribute to secure the professional relevance of the education. The response from Education providers in the survey shows that the work of the management team serves as an important channel for environmental scanning of the industry's development and needs.

Often working life representatives also experience both take on students on the LIA and employees, providing a unique knowledge on Educational accuracy.

To the management actively and continuously to assess training content and

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implementation requires feedback from daily activities of the education. Several providers highlight the importance of dialogue between management and students through the Student Representative.

Some providers regularly invite teaching personnel to the management team meetings for the presentation and discussion on training courses. A common way to report back from training is that the management team regularly communicated evaluations and performance monitoring.

The survey shows consistently that the impulses that lead to a development of education can come from several sources, but that decision taken after deliberation in education management.

To Executive Team will be systematic, it is common to work from an agreed procedure. Often it's about have the following agenda items where changes in working life, re-transmission of evaluations and performance monitoring of education provides a basis for a discussion that can lead to decisions changes in curriculum or syllabus.

Summary by EQARF model: professional role

Planning

- Workshops to develop relevant goals and curricula in cooperation with the relevant working
- Management establishes guidelines for education goals, content and implementation of the curriculum and syllabi

Execution

Teaching staff with close industry-relation

- Established workflow management training that ensures continuous exchange of information between work and education
- Continuous business intelligence
- Certification or independent examination of the industry
- Working life gives access to facilities and materials in teaching
- Working life is actively involved in the design of projects, assignments and cases
- Representatives from the work involved in assessing completed student projects

Evaluation

- Evaluative surveys to students during training
- Class or student council
- Evaluative questionnaires to students after graduation
- Follow up on previous students

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- Addressing the former student's employer views on the knowledge and competence of the professional role required
- Addressing the LIA supervisor's view of the knowledge and skills professional role requires
- Take advantage of professional active teachers approach to course content in relation to the knowledge and skills that professional role requires
- Evaluation meetings with stakeholders
- Teachers council

Review

- Review the training eligibility requirements, implementation and content in relation to educational objectives
- Continually review work through staff meetings
- Management decisions about developing curricula, training goals or other parts of the curriculum in order to increase accuracy in relation to professional role

EQARF Indicators

The following table summarises evidence identified that relates any indicators used at national level to the ten indicators proposed in the EQARF recommendation:

#	Indicators	Organization(s)	Observations
1	<p>No 1</p> <p>Relevance of quality assurance systems for VET providers:</p> <p>(a) share of VET providers applying internal quality assurance systems defined by law/at own initiative</p> <p>(b) share of accredited VET providers</p>	<p>The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education</p>	<p>At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is used for monitoring. It is collected through inspection. The School Inspectorate collects information for The Swedish National Agency for Education and the Education Department at The Swedish National Agency for Higher Vocational Education is responsible for quality assurance.</p>

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2	<p>No 2 Investment in training of teachers and trainers: (a) share of teachers and trainers participating in further training (b) amount of funds invested</p>		<p>At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is not implemented. No evidence was found to suggest that this had changed.</p>
3	<p>No 3 Participation rate in VET programmes: Number of participants in VET programmes, according to the type of programme and the individual criteria</p>	<p>Statistics Sweden/ The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education</p>	<p>At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is used for planning and target setting, and monitoring as collected through surveys. See further notes following this table.</p>
4	<p>No 4 Completion rate in VET programmes: Number of persons having successfully completed/abandoned VET programmes, according to the type of programme and the individual criteria</p>	<p>Statistics Sweden The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education</p>	<p>At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is used for planning and target setting, monitoring and performance based decision making as collected through surveys and inspection. This data is available at national and provider level. See further notes following this table.</p>
5	<p>No 5 Placement rate in VET programmes: (a) destination of VET learners at a designated point in time after completion of training, according to the type of programme and the individual criteria (b) share of employed learners at a</p>	<p>The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education</p>	<p>At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is used for planning and target setting, monitoring and performance based decision making as collected through surveys. For instance, it was found that 2008, KY, began to oblige providers to follow up how their graduates students have</p>

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	designated point in time after completion of training, according to the type of programme and the individual criteria		managed to establish themselves in the job market six months after graduation. These results will be published online (the first results arrived at the authority in November 2008). This assessment has been made by survey in previous years.
6	<p>No 6</p> <p>Utilisation of acquired skills at the workplace:</p> <p>(a) information on occupation obtained by individuals after completion of training, according to type of training and individual criteria</p> <p>(b) satisfaction rate of individuals and employers with acquired skills/competences</p>	The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education	At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that a pilot for this indicator had been implemented for performance based decision making. No further information was revealed regarding this indicator at this stage. The Swedish National Agency for Higher Vocational Education survey mentioned under indicator 7 asks students about this topic.
7	<p>No 7</p> <p>Unemployment rate according to individual criteria</p>	Statistics Sweden/ The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education	At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is used for planning and target setting. It reasonable to suppose that, as in many countries, the two bodies responsible for IVET and CVET use this as background information for this planning and target setting.
8	<p>No 8</p> <p>Prevalence of vulnerable groups:</p> <p>(a) percentage of participants in VET classified as disadvantaged groups (in a defined region or catchment area) according to age and gender</p> <p>(b) success rate of disadvantaged groups according to age and gender</p>	Statistics Sweden/ The Swedish National Agency for Education / The Swedish National Agency for Higher Vocational Education	At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is used for monitoring. For instance, we found that it is suggested among the indicators proposed in the BRUK tool to include in the quality reports for The Swedish National Agency for Education.
9	<p>No 9</p> <p>Mechanisms to identify training needs</p>		At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer

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	<p>in the labour market:</p> <p>(a) information on mechanisms set up to identify changing demands at different levels</p> <p>(b) evidence of their effectiveness</p>		<p>learning visit Helsinki, 13-15 December 2006 it was stated that this is not implemented. No evidence was found to suggest that this had changed.</p>
10	<p>No 10</p> <p>Schemes used to promote better access to VET:</p> <p>(a) information on existing schemes at different levels</p> <p>(b) evidence of their effectiveness</p>		<p>At the Cross Country Analysis on the Use of Indicators for Quality in VET Peer learning visit Helsinki, 13-15 December 2006 it was stated that this is not implemented. No evidence was found to suggest that this had changed.</p>

Note about the indicator # 2 (No 2 Investment in training of teachers and trainers): The Swedish Ministry of Education and Research and the Swedish National Agency for Education (administers the initiative), organized and supported project with a budget of SEK 2.8 billion for improving the results/ outcomes of Swedish schools by investing in continuing education to increase teachers skills and competence. The goal is for 30 000 teachers in Sweden to receive further education at institutions of higher education between 2007 and 20101.

10. National Framework, NQF

The national qualifications framework should be as close to Europe as possible.

- The national framework should be given the same basic structure as the European.
- The national frame categories and assessing expressions should be given a common design that allows placement of experience and knowledge and at the same time being a tool for future changes.
- The national framework should have the openness and readiness to include qualifications from all types of learning at all levels.
- The national framework should be designed to facilitate the development of skills that takes place in the formation and work.
- The national framework should be reviewed at regular intervals.

A large part of learning in vocational training in Sweden takes place outside of the public education. In this respect, Sweden differs from many European countries.

Another area where Sweden differs is the regulated professions that are present much extensively in many European countries, which are on a small scale in Sweden.

Both of the above factors have had an impact on the NQF portrayed in different countries. Certificates, diplomas etc. are integrated in many countries vocational training, which is not, or to a very limited extent occur in Sweden. In Sweden industries owns their own certificates and diplomas, and these documents are available as a part of their own qualification frameworks - sectorial qualification framework (SQF).

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In working with the Swedish NQF the authority has, even though Sweden differs from many countries in terms of employment and vocational training, been influenced by other work with NQF in different ways.

- The work process –most countries the Swedish National Agency for Higher Education has studied worked wide, open and in dialogue with many stakeholders. This has also become the model chosen by the Swedish authority.
- Number of levels - most countries has chosen eight levels as the starting point has been to be as close to the European framework (EQF) as possible. This has been the starting point for the authority. Ireland and Scotland has, since the late 1990's and early 2000's their own qualification system, a system that is now aligned to the EQF. This has meant that Ireland has chosen to have 10 levels in the NQF and Scotland 12 levels.
- Descriptors – The authority's position has also, in terms of descriptors, wanted to be as close to the European Framework - EQF - as possible.

The Authority has therefore chosen concepts of knowledge, skill and competence, which also is what most other European countries have done. A few countries have taken a different path e.g. Germany which divided the skills into two groups, social competence and self-competence.

- The relationship between vocational and academic education - regarding the possibility for non-academic vocational training to reach higher than level 5 of the framework is different the countries. Some countries want to open levels 6-8 also for non-academic courses such as Germany and Poland. This approach is also proposed for Sweden to join. Other countries such as Denmark and Romania want a clear distinction between academic and non-academic training, which means that the vocational training of non-academic nature can only reach up to level 5. A third group has chosen to create parallel tracks for levels 6-8, one for academics and one for training, including Austria has chosen this path.
- Include non-formal and informal learning in the NQF - in the work of the Swedish NQF, the authority considered that if the NQF will cover all learning in VET the framework must have an opening for the non-formal learning.

Here Sweden differs from some other European countries NQF. Some countries have in their NQF chosen not to include the non-formal and informal learning, probably because much of the learning that is conducted in Sweden in the workplace is integrated in their formal education. Scotland claims to include all learning in their framework, which means that even the non-formal and informal learning is part of the Scottish NQF.

- EQF and EHEA EQF - within Europe, work is underway to make the frameworks EQF and

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EHEA EQF (European Qualifications Framework - European Higher Education Area) find forms of cooperation. The idea of collaboration is not that the frameworks should be merged into one, but they will by themselves support facilitate mobility in Europe, as a translation tool for their educational system, and to support the process of lifelong learning. When the cooperation between the EQF and EQFEHEA recently begun, the process will affect the NQF, which means that the NQF will need to be updated based on the agreements made between EQF and EHEA EQF.

Introduction to the VET System in Sweden

The vast majority of vocational education and training system in Sweden falls under the responsibility of the Ministry of Education and Research. The Swedish school system is goal-based with a high degree of local (i.e. municipal) responsibility. The Swedish Parliament and Government sets out national goals in the Education Act (1985) and subsequent regulations. In 2006, a new Government was elected and stated its intention to reform the current integrated upper secondary education into these three components 1) general/academic programmes; 2) vocationally-oriented programmes; and 3) upper secondary apprenticeship programmes. Recent reforms have concerned regulations on secondary apprenticeship (2007:1349), assignment for teacher training (2007:223) and on state teacher training (2007:222). Regulations on municipal adult education were defined prior to this under regulation no. 2002:1012. Advanced vocational training comes under act 2001:239 and is regulated by two further regulations (2001:1131) and (2006:906) with other regulations defining such matters as state aid or the relevant authorities powers.

The Swedish government created the Swedish National Agency for Education (Skolverket) as the central administrative authority for the Swedish public school system. The Agency is responsible for children, young people and adults, as well as for preschool activities and child care for school children. The Authority for qualified Training is responsible for Advanced Vocational Education. As regards to other actors in the VET system, it should be noted that the municipalities have a high level of authority due to the decentralised system operating in Sweden and a recent OECD report on VET in Sweden has reported that there is “little framework for cooperation between VET providers and the social partners” . In terms of recent developments in policies and programs related to VET in Sweden, the Swedish government has created an Upper Secondary Commission (Gymnasieutredningen), which will elaborate plans for a three-track upper secondary system, introducing new apprenticeship system alongside updated forms of the current academic and vocational tracks. The Government Proposal 2008/09 is another relevant development that aims to ensure that polytechnic post-secondary vocational training responds to working life by providing practical and theoretical skills suitable for the workplace.

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IVET

There is little distinction between VET and the general school system in Sweden. Initial Vocational Education and Training (IVET) are provided in three different levels:

- Upper secondary level: This level of education gives students the basic skills needed to live and work in the community, and prepares them for further study. As of 2007 there were 17 national programmes, all of which are 3-year programmes. The programmes provide a broad general education and eligibility to study at university or post-secondary level;
- Post-secondary level: Advanced Vocational Education and Training, (Kvalificerad Yrkesutbildning, KY) is a form of post-secondary education designed to meet current competence needs in working life;
- Tertiary level: All higher education is pursued in courses, which can be taken independently or in a combination to form one of the three general degrees in undergraduate education and the higher education diploma.
- In 2008 the Swedish National Agency for Education launched an IVET skills database to facilitate validation. This was developed to support validation of the VET skills in 2004-2007.

CVET

The majority of Continuous Vocational Education and Training (CVET) in Sweden is publicly approved and funded programmes. CVET are mainly provided in four different categories:

- Publicly-promoted CVET for all: The publicly-promoted CVET has four elements: adult education and training; post-secondary and advanced vocational training; labour market training; and in-service training and professional development;
- Training for unemployed people and others vulnerable to exclusion: Labour market training is available for unemployed people and can comprise basic or supplementary training. The principle of equity in the Swedish education system results special schools for some people with particular needs;
- CVET at private enterprise initiative or promoted by social partners: Many workplaces provide, on a voluntary basis, comprehensive in-service training for personnel at all levels of the organisation. This type of training can involve everything from practical vocational skills to extensive theoretical study;
- CVET at individual initiative: Since 1975, all employees are entitled by law to unpaid leaves of absence for studying, provided they had the same employer the last six months or for at total of 12 months during the two previous years.

Quality Assurance

The Swedish National Agency for Education (Skolverket) is the central administrative authority for the Swedish public school system for children, young people and adults. It steers, supports, follows up and evaluates the work of municipalities and schools with the purpose of improving quality and the result of activities to ensure that all pupils have access

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to equal education. At advanced level the Authority for Advanced Vocational Education (KY) has the task of securing the quality of the qualified training.

In regard to quality, on its website, The Swedish National Agency for Education gathers and publishes statistics and reports the numbers of pupils and their performance at a provider, municipal, and national level depending on the data and also provides analytical reports as well as guidance documents that contribute to quality assurance. By regulation, municipalities and schools must submit quality reports for which content guidelines are provided. The Swedish National Agency for Education has also developed a tool “BRUK” to support the assessment and development of quality that uses indicators. Furthermore an award for school quality has been developed to encourage quality improvement. For advanced vocational education, KY has published its approach to quality assurance in December 2007. It does not contain indicators, but rather offers advice on the different important aspects to be included in a quality assurance system.

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Annex

Chapter 1:

On quality assurance and learning outcomes: Evaluating students' work within institutions or institutional work with students?

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1.1 Introduction

In September 2009, a new model for quality assurance (QA) was presented to the Swedish Government by the National Agency for Higher Education (NAHE). The model was based on learning outcomes and will constitute the base for this article, although the model as such will not be implemented in Sweden.

The article is structured around the following topics: a) definitions and levels for learning outcomes; b) a brief introduction to the Swedish model; and c) suggested models and principles for evaluating intended and achieved learning outcomes. The idea is to bring the reader from a fundamental level of these issues all the way down to the “knitty gritty” implementation, and to raise some of the basic questions that arise in this process.

The definitions of learning outcomes used throughout the article are as follows:

Intended Learning Outcomes (ILOs) are written statements of what the student is expected to know, understand and be able to do after completion of a learning unit.

Achieved Learning Outcomes (ALOs) are what individual students have actually achieved in relation to the intended learning outcomes of this learning unit.

1.2 Levels of learning outcomes – the Bologna system

Learning outcomes can be formulated on different levels in the Bologna system, and in each discussion, it is important to know which one of these levels you are referring to.

Further, the Bologna system is a holistic system where all levels need to be integrated.

The top level is the European level, the Qualifications Framework for the European Higher Education Area (QFEHEA). The next level is the national level where some countries have level descriptors in their higher education legislation and some do not. The following three levels “belong” to institutions and individual teachers; the programme level, the course/module level and the individual task level.

This level structure constitutes one of the cornerstones in the model presented to the Government, where level two (the national level) was used as frame of reference, against which level four (course/module level) of the programmes under evaluation was to be evaluated.

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1.3 The proposed model – background

The reason for the Swedish Government to assign NAHE to develop a new model for quality assurance was the higher education sector's severe critique of the QA system in use. The main critique concerned the lack of transparency and alignment with the Bologna process. The Government expressed this in the assignment to NAHE as the need for a new QA system to be "more focused on results".

The discussion therefore started with defining what constitutes educational results.

A group of vice chancellors, the chair of the Swedish Student Union and representatives from NAHE agreed that the results of higher education (HE), and indeed of any education, must concern what students have achieved after the completion of their studies. From that, the definition of quality followed easily; quality in Swedish HE would be that students achieve the ILOs, as expressed in the qualification descriptors (i.e., level two) in the Higher Education Ordinance. In line with that, the *basic question* the new QA model had to answer simply became: "Do programmes ensure that students achieve these learning outcomes?"

The model was then composed by NAHE, jointly with vice chancellors and their quality executives during a series of hearings. Key issues were: transparency and predictability, that it should be based on research and experience in *both* evaluation *and* teaching and learning processes, and finally, on a structural level, supporting the regular teaching activities and their planning in faculties. This would make the system sustainable and balance the needs for both accountability and improvement (cf. EUA Policy Statement, 2010).

The result was a *basic structure* of three quality indicators. The first, "Intended Learning Outcomes and Assessment", the second, "Achieved Learning Outcomes" and the third, "The Student Experience". Each evaluated program would acquire a quality.

1.4 Assessing and evaluating learning outcomes – moving closer to reality

Difficulties in drawing conclusions about educational quality from a learning outcome perspective will increase the further away from the teaching and learning situation the evaluation is carried out. Between the choice of (quality) audits and evaluations of study programmes/subjects there is a need to choose the latter in order to tackle the issue at its source, *the teacher-student situation* where both ILOs and ALOs are applied in actual practice.

1.4.1 Assessing or evaluating intended learning outcomes and aligned teaching

Although being the cornerstone in the paradigm shift from teacher-driven to student centred teaching and learning, the use of ILOs are not enough to ensure that these are turned into ALOs. In the proposed model, a special focus was therefore laid also on what is often labelled *aligned teaching/constructive alignment* (Biggs, 2003) or *the learning chain* (Gehmlich, 2010).

Aligned teaching is a way of tying together the different parts of the teaching and learning situation for the student in a logical and understandable order. The first step is to formulate ILOs and the next to find ways for making these visible, which is the design of relevant, fit-for-purpose assessment tasks. After that, decisions on grading system and assessment

criteria need to be taken. Finally, the teaching and learning activities that will enable students to achieve this are designed.

When teaching is planned in this order, focus is shifted from teacher activities to student activities and from the content of the learning unit to the results intended. This is a necessary shift to make teaching and learning more student-centred and outcome based. In relation to quality assurance, the same type of logic needs to be applied.

Thus, the key components for good quality in relation to aligned teaching needs to be identified. In the proposed Swedish model, the key components for this part (Indicator 1a) were defined as *coverage, assessability, content and level* of ILOs and *relevance/fitness for purpose* of examination tasks.

The first component, *coverage*, concerns whether the ILOs laid down in the national qualification descriptors (or any other benchmark descriptors) are sufficiently covered by the combined ILOs of the programme/fields of study under evaluation.

In order for ILOs to be assessed, they must describe “visible use of knowledge”, or competencies, meaning the unique combination of knowledge and skills. The learner “knows and understands” but is also “able to do” something with this knowledge. This constitutes the heart of the learning outcome paradigm, and therefore, *assessability* (i.e., the use of *action verbs*) must be seen as the main sign of quality in ILOs. These must also have the right *content* in relation to course objectives and be on the right academic *level* for the programme, not too high *or* low.

Third, assessments must be designed in a *relevant* manner in order to ensure that the learner achieves the intended learning outcomes. Thus, the evaluation of assessment/examination tasks with regards to both *content* and *form* is necessary. Finally, since the existence of written grading criteria has been shown to enhance student learning (e.g. Rust, Price, & O’Donovan, 2003; O’Donovan, Price & Rust, 2008), and is also one of the demands in the ESG, this was added as the last area for scrutiny.

It is important to note that no evaluation of the actual teaching and learning activities were included. The reason for this is that, apart from being unnecessarily intrusive on institutional autonomy, no overall evidence for any particular teaching methods has been provided so far, except for the general active learning strategy.

Assessing or evaluating achieved learning outcomes

The initial way of thinking about the methods for including ALOs in a QA system is, probably for most of us, to develop a model where subsets of student work are assessed in order to generate a general conclusion about the overall quality of the programme under evaluation. With this strategy, a number of questions immediately arise: a) What is student work? ; b) What learning outcomes are connected to them? ; c) Which type of samples would be usable as generalisations about the quality of entire study programmes? And finally, a more fundamental question: d) *Is there a problem that quality evaluators assess the same work which has already been assessed by teachers?*

In the Swedish higher education system, the first questions are easy to answer. The only student work available on a system level, is the independent degree project every student have to do in order to receive her/his exam. All other assignments during the studies are legally owned by the students themselves. They are not registered as such in any

administrative system, and hence, not available on a systematic basis on the national level. Regarding the ILOs, guidance for constructing these on both bachelor and master level, can be found in the Higher Education Act and the Higher Education Ordinance (level two). These would form a basis for more specified learning outcomes on programme level to be used in each particular programme evaluation.

The third question raised is more complicated. In order to draw statistically sound generalisations about the quality of individual programmes, random samples are necessary, which, in this context, often means very large samples. This constitutes a practical problem where the answer lies in the allowed cost of a QA system. In addition, it is important to mention that the degree project still represents only a very limited portion of the educational programme especially related to programme content.

The fourth question concerns a role mix-up between the institutions and their responsibilities of performing valid, reliable and fair assessment of student work on the one hand, while on the other hand, QA organisations base their evaluations on assessments of the same student work as a kind of “second opinion”. *This constitutes a fundamental problem in using ALOs in the QA process.* Since role confusion in any system often leads to problems, this need to be resolved. One solution is to twist the question to some degree. Instead of evaluating individual student work and then draw general conclusions about the quality of the programme, the evaluation can, instead, concern whether students with poor results on their degree projects (that is, not achieving the intended learning outcomes) are allowed to pass through the system or not. This solves a number of issues. First, and most important, although using ALOs, the evaluation now concerns the study programme, that is, the *quality of work with students* instead of *the quality of student work*. This is the very purpose of a QA system.

Second, the number of degree projects can be reduced, because the evaluation can end once an unsatisfactory, or possibly a few unsatisfactory project(s) have been observed⁴. There is simply no need to go through the remaining sample once these have been discovered. The entire sample needs to be examined only in the case where no unsatisfactory works are discovered.

Third, this method does not make *statistical generalisations*, but instead, base the evaluations on *empirical observations*: either none of the degree projects hold suboptimal standards that is, this programme really ensures that students who have passed their exam have actually achieved the ILOs connected to the degree projects.

Or, one project (or possibly a few) has actually passed the system even though it was not up to the required standards, which means that the quality of this programme cannot be fully trusted.

1.5 Conclusions

Learning outcomes builds on theories and research on active learning which we know enhances student learning (e.g. Hake, 1998; Prince, 2004), the main objective of all education. This is the natural starting point for quality assurance. It also gives evaluators, students and teachers a common language which facilitates the joint project of giving every student the optimal conditions for their studies.

First, in order to include learning outcomes (LOs), we suggest that one necessary condition is that the system focuses on programme/subject evaluations instead of audits. Further, concerning ILOs, there are few methodological problems, but there is a definite need to embed the evaluation of these into a somewhat wider context where we suggest aligned teaching.

In relation to including ALOs in a QA system however, there are both methodological and fundamental issues that need to be thought through. First, one has to be aware of that evaluating ALOs in a national system will most probably always cause workload problems. Further, on the more fundamental level, we have suggested that measures are taken in order to construct the system so as to ensure that the evaluation concerns *not the quality in student work but the quality in teachers' and institutions' work with students*. This is to ensure that the system evaluates educational quality and not student quality. It is well known that the socioeconomic status of students explains a large proportion of their results independently of educational quality.

Finally, there still exists a lack of knowledge in higher education about what learning outcomes really are and what they can accomplish. This probably explains the resistance still found. The challenge is now to reach out to teachers, students and evaluators with this knowledge to encourage the use of learning outcomes in a competent and creative manner. This can also become a powerful tool in striving to further develop the necessary interaction between research, education and innovation in the European Higher Education Area.

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