

Editors Marja-Leena Stenström and Kati Laine



TOWARDS GOOD PRACTICES

for Practice-Oriented Assessment
in European Vocational Education



INSTITUTE FOR
EDUCATIONAL RESEARCH
UNIVERSITY OF JYVÄSKYLÄ

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ASSESSMENT IN EUROPEAN
VOCATIONAL EDUCATION**

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Abstract

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The aim of this report is to introduce elements of good practices of practice-oriented assessment within the Leonardo da Vinci project 'Quality Assurance and Practice-Oriented Assessment in Vocational Education and Training' (QUAL-PRAXIS) funded by the European Commission. The focus of the QUAL-PRAXIS project is to identify current innovations and future developments in practices and approaches to the assessment of work-based learning in European countries. The findings in this report are based on the case studies of each partner country: Austria, Estonia, Finland, Germany, and Ireland. The elements of good practices of practice-oriented assessment can be divided into two categories: learning and quality assurance. The elements concerning learning are as follows: assessment as a part of learning, reflection, self-assessment and feedback. The elements of quality assurance include authentic context, training for assessors, transparent assessment, joint assessment and multiplicity of methods.

The list of the elements is only indicative. However, some common elements have been found, despite the fact that the models of learning at work being evaluated in the partner countries vary by the educational level, ranging from secondary to higher education. The common elements established in the project are similar to the elements of authentic assessment. Hence, practice-oriented assessment can be considered to belong to the fifth generation of the assessment paradigm, since also there contextuality and authenticity are central elements.

Descriptors: vocational education, work-based learning, practice-oriented assessment, assessment, quality assurance, Europe

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Stenström, M.-L. & Laine, K. (toim.) 2006. Kohti käytännön osaamisen arvioinnin hyviä eurooppalaisia käytäntöjä. Jyväskylän yliopisto. Koulutuksen tutkimuslaitos. Tutkimus-
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Tämän raportin tarkoituksena on esitellä käytännön osaamisen (työssä oppimisen) arvioinnin hyviä käytäntöjä. Raportti perustuu Euroopan unionin rahoittamaan Leonardo da Vinci -projektiin 'Laadun varmistus ja työssä oppimisen arviointi ammatillisessa koulutuksessa' (QUAL-PRAXIS). QUAL-PRAXIS -projektissa pyritään tunnistamaan työssä oppimisen arvioinnin käytäntöihin ja lähestymistapoihin liittyviä ajankohtaisia eurooppalaisia innovaatioita sekä tulevaisuuden kehityslinjoja. Raportin esimerkit perustuvat partnerimaissa toteutettuihin tapaustutkimuksiin. Mukana olevat partnerimaat ovat Itävalta, Viro, Suomi, Saksa sekä Irlanti. Käytännön osaamisen arvioinnin hyviin käytäntöihin kuuluvat piirteet voidaan jakaa kahteen eri kategoriaan: oppimiseen ja laadunvarmistukseen. Oppimista koskevia piirteitä ovat arviointi osana oppimista, reflektointi, itsearviointi ja palaute. Laadunvarmistukseen taas liittyvät autenttinen konteksti, arvioitsijoiden koulutus, arvioinnin läpinäkyvyys, yhteisarviointi sekä arviointimenetelmien moninaisuus.

Tässä raportissa esitetty luettelo hyvien käytäntöjen osa-alueista on vain suuntaa-antava. Huomionarvoista on, että yhteisiä elementtejä on löydetty huolimatta siitä, että eri maissa tutkimuksen kohteina olleet työssä oppimisen mallit vaihtelevat koulutustasoltaan toisen asteen koulutuksesta korkeakoulutukseen. Projektissa löydettyt osa-alueet ovat samanlaisia autenttiseen arviointiin liittyvien piirteiden kanssa. Käytännön osaamisen arvioinnin voidaan katsoa kuuluvan arviointiparadigman viidenteen sukupolveen, joka myös painottaa kontekstin ja autenttisuuden merkitystä.

Asiasanat: ammatillinen koulutus, hyvät käytännöt, laadunvarmistus, työssäoppiminen, arviointi, Eurooppa

Preface

The focus of the Leonardo da Vinci project Quality Assurance and Practice-Oriented Assessment in Vocational Education and Training (QUAL-PRAXIS) is to identify current innovations and future developments in practices of and approaches to the assessment of work-based learning in European countries. Particular attention has been paid to models and good practices of practice-oriented assessment. Good assessment practices make it easier to develop more transparent qualifications.

The project spans from October 2003 to September 2006 and is supported by the European Commission under the Leonardo da Vinci programme, Procedure C, Referential material. QUAL-PRAXIS partner countries represent different systems of vocational education and training (work-based, school-based and mixed systems), which provides a challenging basis for discussing and comparing different assessment systems.

The coordinator of the project is the Institute for Educational Research at the University of Jyväskylä. The scientific coordinator of the project is Dr Marja-Leena Stenström and her research assistant is Ms Kati Laine. The partnership consists of six European institutions representing universities and research centres. The partners are as follows: *Austria*: 3s Research Laboratory, Ms Karin Messerer; *Germany*: ITB, University of Bremen, Dr Philipp Grollmann and Dr Roland Tutschner; *Estonia*: Institute of Educational Research, Tallinn Pedagogical University, Dr Krista Loogma, Ms Meril Ümarik and Ms Sofia Joons; *Ireland*: School of Educational Studies, Dublin City University, Dr Gerry McNamara, Mr Justin Rami and Mr John Lalor, *Finland*: National Board of Education, Dr Lauri Kurvonen. The external evaluator of the project is Dr Ellen Piesanen from the Institute for Educational Research.

The QUAL-PRAXIS project has an advisory committee comprising the following persons from the Institute for Educational Research: Director Jouni Välijärvi, Vice-Director Pirjo Linnakylä, Professor Päivi Tynjälä, Dr Ellen Piesanen, Dr Marja-Leena Stenström (Chair), Ms Kati Laine, Ms Seija Mannila and Ms Sirkku Hihnala (secretary).

The first publication "Quality Assurance and Practice-Oriented Assessment in Vocational Education and Training: Country Studies" edited by Philipp Grollmann and

Marja-Leena Stenström has been published in the ITB-Working Papers series Nr. 55 in 2005. This report is the second outcome of the QUAL-PRAXIS project. The report is divided into three chapters. The first chapter gives an introduction to the aims and topics of the report. The second chapter has been written in collaboration by the partnership. The chapter describes the relevant elements of good practices of the practice-oriented assessment that the project group has been able to establish. The elements of good practices have been derived from case studies that the partners have implemented in their own countries. The third chapter presents a conclusion of the good practices.

I would like to thank all the authors, the advisory committee and all the people taking part in the QUAL-PRAXIS project, who have contributed to the process of the project and publishing the report. Especially, I would like to thank late Mr. Hannu Hiilos, who highly expertly checked the language of the main parts of the report. His sudden death just a few days ago leaves us in great sorrow yet with fond memories of a kind and highly respected colleague. I am also grateful to Mr. Tuomo Suontausta, who kindly and expertly checked the language of the conclusions, the preface and the abstract, and to the Institute for Educational Research for publishing this report in its series.

Marja-Leena Stenström, Scientific Coordinator
February 2006

1

INTRODUCTION: Searching for Principles of Good Practices in Practice-Oriented Assessment

Marja-Leena Stenström & Kati Laine

1.1 Introduction to the Leonardo da Vinci Project QUAL-PRAXIS

This is a report on the Leonardo da Vinci project Quality Assurance and Practice-Oriented Assessment in Vocational Education and Training (QUAL-PRAXIS), coordinated by the Institute for Educational Research, University of Jyväskylä, Finland and funded by the European Commission. The focus of the QUAL-PRAXIS project is on identifying current innovations and future developments in practices used in measuring and approaches to the assessment of work-based learning in European countries. The countries represented among the project partners have different systems of VET (work-based, school-based and combined models), which is a challenging starting point for an analysis of the range of assessment methods and tools employed in them. The project partners are the following universities and research institutes: University of Bremen, Institute Technology and Education (Germany, Bremen); 3s research laboratory (Austria, Vienna); Dublin City University, School of Education Studies (Ireland, Dublin); and University of Tallinn, Institute of Educational Research (Estonia, Tallinn). The Finnish partners include, in addition to the University of Jyväskylä and the Institute for Educational Research based there, the Finnish National Board of Education.

The project has previously put out a volume bringing together national reports on trends and developments in practice-oriented assessment in VET as seen in Austria, Germany, Estonia, Ireland and Finland (Grollmann & Stenström 2005). The present publication, the project's second report, describes good practices in work-based assessment

derived from research – both from studies of more general topics and from studies specifically looking at assessment – carried out in the partner countries mainly in the study field of social welfare and health care. The examples given in the report are intended to benefit teachers, teacher educators, workplace supervisors, decision-makers, educational authorities and researchers.

1.2 Defining Good Practice

There is no unambiguous definition of good practice. The identification of a particular practice as a good one depends on the people or organisation responsible for the identification and on the context where the practice is thus identified. “Good practice” is a concept which has been used inconsistently. This has led to a situation where it is employed differently in different settings. Some commonalities can nevertheless be found. They include process-oriented thinking and definitions based on means which generate the best results. Good practice is a continual process of learning about, feedback concerning, reflection on and analysis of what works and why something, on the other hand, does not work. Good practices are bound by time and place and associated with particular projects and experts. A definition of good practice emphasises functionality, a process orientation, transformability, and innovativeness. (Tuominen, Koskinen-Ollonqvist & Rouvinen-Wilenius 2004, 7, 27; Frisk & Antila 2004, 40.)

Tuominen and others (2004, 9) have classified definitions of good practice as follows:

- 1) Definitions emphasising functionality:
 - Good practices can be anything which works fully or partly; they can be useful sets of functions which generate learning.
 - Good practices have worked well elsewhere; they have been proven to be good and they have led to good results.
 - Good practices are outcomes which can be transferred elsewhere as functional sets.
- 2) Definitions emphasising processes:
 - Good practices stand for advantageous methods which help to achieve the objectives defined for an activity, open up avenues of action, and make a company more profitable.
 - Good practices include the same elements as benchmarking even if the associated data collection procedures are more research-based.
- 3) Definitions emphasising innovativeness and transformability:
 - Good practices are innovative. They create opportunities to introduce new procedures and approaches.

- Good practices are associated with successful projects.
- Good practice can be turned into new practices. Good practice includes elements needed in problem-solving, in which case it can be transformed to suit different situations.

The definition of good practice applied in this publication in the context of work-based learning is derived from three sources: 1) regulations and curriculum and other official documents grounded on educational policies; 2) theoretical perspectives related to on-the-job learning and skills demonstrations; and 3) the general criteria for good practice-oriented assessment practices as defined by the QUAL-PRAXIS project. The project has specified the following preliminary criteria for identifying good practices in this area:

- They are ways of assessing work-based learning as part of formal vocational education.
- They offer solutions to a problem or yield new procedures.
- Their aim is to advance our understanding of which ways of assessing work-based learning work, how they work, why they work and what are the conditions under which they work.
- They help to achieve better outcomes in vocational education.
- Their aim is to assure the quality of VET.
- They work in practice in their own context.

1.3 Practice-Oriented Assessment

In the QUAL-PRAXIS project, practice-oriented assessment refers to performance- and competence-based assessment (the assessment of work-based learning) used as one of the possible student assessment methods in VET. The idea of competency-based training and assessment originated in performance-based teacher education in America in the 1960s (Velde 1999).

The origins of assessment as it is practised in vocational education are different from those of assessment as performed in academic education. The roots of standardised academic testing lie in the mental testing movement in the field of psychology and education. In the competency-based movement, which is the source of VET assessment, curriculum content, test items, and performance exercises are derived from analyses of actual tasks carried out by people in specific jobs and occupational fields. In vocational education, assessment is a criterion-referenced rather than norm-referenced procedure; it forms an integral part of the process of education, not an external process of inspection. (U.S. Congress, Office of Technology Assessment in Vocational Education 1994.)

Assessment and learning can be seen either as separate processes or as aspects of one and the same process. If learning and assessment are separate processes, then the function of assessment is to measure rather than foster learning. By contrast, if education is seen from the perspective of learning, assessment can, by the same token, be seen as part of the learning process. (Poikela 1998; Stenström 2005.) A student assessing their own learning contributes to the overall assessment process. Constructivist thinking is based on a viewpoint that emphasises fostering the student’s metacognitive thinking, self-directedness, learning-to-learn process, interaction, and willingness to collaborate. (Rauste-von Wright & von Wright 1994; Tynjälä 1999a.)

Even if constructivist learning theory forms one basis of work-based learning, it is not enough on its own to explain learning based on work, which can be described under the concepts of reflective, transformative, contextual and situated learning (Lave & Wenger 1991; Mezirow 1991; Poikela 2002, 235). The contextual nature of work-based learning is seen in the fact that the student engaged in it learns and is assessed in an authentic context. Practice-oriented assessment reflects features of the above-mentioned theories, especially of constructive and contextual learning. The characteristics of practice-oriented assessment can be compared with those of traditional thinking on assessment (cf. Biggs 1994; Black 1999; Eisner 1993; Tynjälä 1999b).

It is possible to make out differences between traditional and practice-oriented assessment that stem from different conceptions of learning and teaching. (See Table 1.1.)

Table 1.1 *Central Features of Traditional Assessment and Practice-Oriented Assessment (adapted from Tynjälä 1999b)*

Traditional assessment	Practice-oriented assessment
Emphasises quantitative assessment	Emphasises qualitative assessment
Repetitive, emphasises rote learning	Emphasises connectivity between theory and practice and the transformation of knowledge
Artificial assessment settings	Assessment settings that are as authentic as possible
Assessment as separate from the learning process	Assessment as part of the learning process
Assessment by the teacher	Assessment by the teacher, the student and the workplace instructor together
Focus on outcomes	Focus on the learning process, changes in the student’s knowledge and skills, and learning outcomes

If teaching is seen as transfer of knowledge from the teacher to the student, assessment of learning is, correspondingly, seen from a quantitative perspective, with the emphasis laid on rote learning. In qualitative assessment, by contrast, attention focuses on the quality of the knowledge presented by the student. Practice-oriented learning stresses linking theory and practice and applying theory in practice, not just memorising things. One essential factor that distinguishes traditional thinking on assessment from practice-oriented assessment is how the assessment context is understood. Traditional assessment sessions are arranged after the conclusion of a course as an event separate from the teaching process, while in practice-oriented assessment the stress is on the authenticity of learning assignments and their assessment. A further distinguishing feature between traditional and practice-oriented assessment involves the question of who are seen as the assessors. In traditional thinking on assessment, assessing students is a task performed exclusively by the teacher, while in practice-oriented assessment the teacher typically works in collaboration with other assessors (the student, the workplace instructor). As pointed out above, practice-oriented assessment emphasises fostering the student's metacognitive thinking, self-directedness, learning-to-learn process, and interaction.

1.4 Qualitative Criteria of Assessment

Among measurement experts there is a general consensus that performance assessment is a better way to evaluate and a stronger predictor of vocational skills than paper-and-pencil tests (Wolf 1995, 43). The reality of the workplace interacts notably with practice-oriented assessment (Benett 1999, 278). The importance of assessment and the feedback it can provide grows in direct proportion to the variability and unpredictability of the workplace. It is a major challenge to develop practice-oriented assessment methodologies able to capture the contextually specific and partly tacit competencies relevant in the given type of work. (Björnavåld 2001, 25.)

Regardless of the assessment method or methods chosen at any given time, there is an established list of the most important qualitative criteria for sound assessment:

- validity,
- reliability,
- objectivity,
- transparency,
- equity, and
- fairness.

Validity refers to the appropriateness, meaningfulness, and usefulness of the specific inferences made from the results of the measurement (AERA 1999). Validity is largely determined through inferences. Validity is based on theoretical basic defaults but involves

also the aim of appropriateness, that is, an interpretation of the assessment results that is grounded on observations. To ensure valid assessment there should be components measuring, for example, the student's achievement of vocational competence (Straka 2004).

The principle of *transparency* – the requirement that the criteria used in assessment must be known to all parties involved in the assessment process – is another fundamental aspect of validity. Furthermore, a fair assessment is an issue of transparency. The principle of *fairness* in the assessment suggests that no person should be disadvantaged through the assessment process. Therefore, learners should be informed of the implications of results and assessment criteria. (Williams & Bateman 2003, 32, 34.)

When discussing practice-oriented assessment we must, first of all, keep in mind that assessment should be grounded in the reality of the workplace, its particular rules, norms, expectations and prohibitions (*face validity*). Reaching *content validity* presupposes assessing an adequate sample of relevant tasks of a kind that could, in theory, be assigned to students at the workplace. *Predictive validity* is about studying how well assessment predicts students' performance in their subsequent work careers. There should also be independent assessments used as criteria for judging performance at the workplace (*criterion-related validity*). The validity of the relevant constructs (e.g. competence) should also be examined. If the construct under study shows a relationship theoretically predicted as existing between it and other theoretical constructs, it is possible to argue that it has *construct validity*. One more validity requirement to be fulfilled in practice-oriented assessment involves considering not only the outcomes of learning but also the learning process itself (*validity of the learning process*). (Benett 1999, 277–282.)

In the context of work-based learning, *reliability* is bound up with the extent to which the assessment method employed can resist variation during the assessment process. One type of variation is *variation in tasks*. When considering task variation, it should be noted that an increase in reliability (repeatable tasks) should be balanced against a loss of content validity. However, a common factor which runs through the diverse tasks assessed in a skills test is likely to bring some convergence and consistency and hence make assessment more reliable. *Variations in time* are another source of problems: the world will not stay the same even if the assessment tasks remain unchanged, and this makes replication more problematic and undermines assessment reliability. (Benett 1999, 284–286.)

Reliability is connected with the trustworthiness of assessment, which in practice means that an assessment procedure must not include coincidental errors (Straka 2004). When choosing an assessment method, attention must be paid to the ways in which a student is best able to prove their skills. Even students belonging to the same study group must be assessed with different methods. This makes it possible to avoid mistaken assessment. (Kinnunen 2003, 23; Williams & Bateman 2003, 33.) The student must be able

to trust that the personal views or feelings of their teacher or workplace instructor will not influence the assessment. The most central element of reliability is *objectivity*. Objectivity of assessment is assured by using several assessors with differing experiential backgrounds. (Helakorpi 2001, 188.)

Comparability is another consideration affecting reliability when evaluating work-based learning. The question is whether the standard of student performance is consistent from placement to placement and from one year to another and, therefore, comparable. (Benett 1999, 286.)

Equity is one of the most essential criteria of assessment. In tests, equity means assessing a student as objectively as possible and taking account of their personal characteristics and personality. Assessment must not be based on biased attention to race, gender or any such inappropriate factor. (Williams & Bateman 2003, 33.) Equity means also ensuring, with the help of quality assessment, that students in work placement have adequate training conditions. At the same time, guaranteeing equally good conditions is difficult because the standard of the supervision available at workplaces is sometimes dependent on luck. (Vehviläinen 2004, 87.)

1.5 Fields and Levels of Education and Elements of Good Practices Covered

The examples of good practices for assessing work-based learning in VET are given in Chapter 2 of this manual. They represent mostly the social welfare and health care sector, while the levels of education covered vary from upper secondary education to higher education (see Table 1.2). The countries under discussion are Austria, Estonia, Finland, Germany and Ireland. The Austrian examples deal with practice-oriented assessment on study programmes in social work available at a university of applied sciences (Fachhochschule). The good practices from Estonia are based on the assessment of practical training in health care (nursing) offered in applied higher education. The Finnish examples involve assessment of on-the-job learning, (especially vocational skills demonstrations) leading to the Vocational Qualification in Social and Health Care (practical nurse qualification). The focus is on skills tests of vocational competencies used in upper secondary education. The German examples are linked with apprenticeship training in upper secondary level geriatric care education. Finally, the Irish good practices revolve around university-level vocational teacher education.

To define good practices for practice-oriented assessment, the research team prepared papers on good practices based on their chosen case studies or cases for project workshop. Although the educational systems involved and the cases examined differ from each other,

Table 1.2 Examples of Good Practice-Oriented Assessment Practices: Sources

Country	Study programme/ Qualification	Level of education	Source/Focus of examples
Austria	Social work	Applied higher education	Social work study programmes at an Austrian university of applied sciences (one full-time and one part-time programme at the Fachhochschule Campus Wien)
Estonia	Health care (nursing qualification)	Applied higher education	Applied higher education programmes in nursing at Tallinn and Tartu Medical Schools
Finland	Social welfare and health care (practical nurse’s qualification)	Vocational upper secondary education	Vocational skills demonstrations and on-the-job learning towards the Vocational Qualification in Social and Health Care
Germany	Geriatric care	Vocational upper secondary education	Practical (apprenticeship) training as part of geriatric care education
Ireland	Vocational teacher education	Higher education	Undergraduate-level vocational degree programmes offered by the School of Education Studies, Dublin City University

by analysing and discussing the case studies the team was able to specify a number of common elements underpinning good practices in the partner countries. The list of elements of good practice presented below is an indicative, not a comprehensive one. It identifies factors connected with the validity and reliability and, thus, the quality of practice-oriented assessment. The elements are as follows:

- assessment as part of learning,
- reflection,
- self-assessment,
- feedback,
- authentic context,
- assessor training,
- transparent assessment,
- joint assessment, and
- multiplicity of methods.

The above factors can be characterised as representing an activity environment and a learning process. In Figure 1.1, the inner circle describes the learning process assessed using practice-oriented methods while the outer circle outlines the activity environment of practice-oriented assessment itself. The environmental factors surrounding the assessment process act as constituents of quality assurance (QA), thus enhancing the successful implementation of assessment of this type.

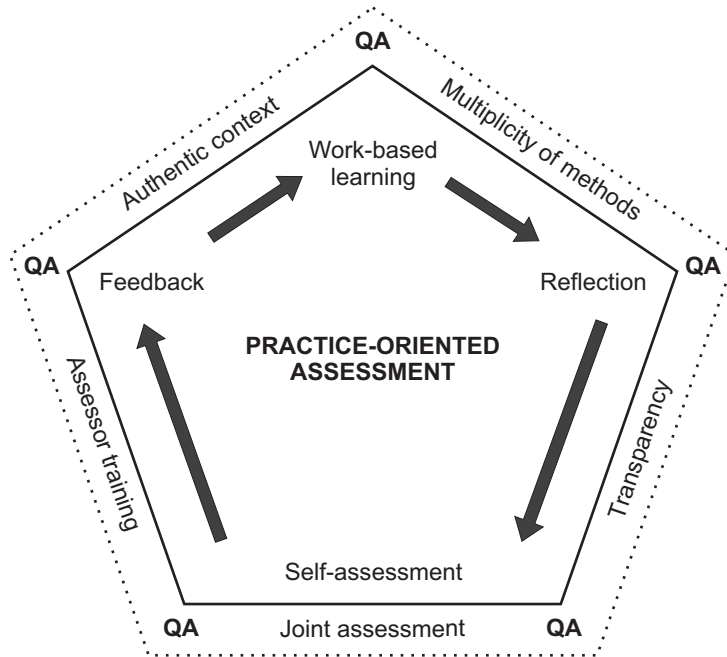


Figure 1.1 Elements of good practices for practice-oriented assessment

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2

Elements of Good Practice: Examples

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This chapter describes elements of good practices in practice-oriented assessment. A general definition of each element is followed by examples from the partner countries. These examples enlighten the elements relevant in cases under scrutiny.

2.1 Assessment as Part of Learning

The influence that assessment exerts on learning and instruction is widely acknowledged. Therefore, there should be a clear link between assessment on the one hand and learning goals and the teaching and learning process on the other. (Häcker 2005; Earl 2003; Wiggins 1998.) Considered as an integral aspect of learning, practice-oriented assessment is not an once-and-for-all event but an ongoing, dynamic process that drives a sustained interaction between the student and the teacher, mentor or workplace instructor.

Assessment conducted as part of the learning process is a tool for learning intended to improve and facilitate teaching and learning in various ways. Ongoing assessments help students gain feedback on their performance, evaluate and monitor their progress and competence development, guide their learning process (such as building upon their strengths and overcoming their weaknesses) and develop a ability to assess their own learning. At the same time, ongoing assessment helps teachers, mentors or workplace instructors to communicate to the students what are the learning outcomes (competencies) that these are expected to achieve and get feedback from the students that makes it easier to adapt the teaching or mentoring process so as to meet the students' or mentors' needs.

2.1.1 Examples of Assessment as Part of Learning

AUSTRIA. Because of the specific challenges facing work-based learning in the field of social work, assessment methods are closely linked to the teaching and learning process.

Being engaged in and addressing highly complex social relationships is a central component of the social work profession. In order to develop an effective, professional helping relationship, a social worker must have a good grasp of the dynamics of human interaction. Methodical reflection on social interaction – a fundamental factor in effective social work – must be a core educational objective of training programmes. Thus, when assessing students the focus is not only on the actions evaluated as such but also on the student's ability to themselves reflect on them. Teaching, learning, assessment and reflection can be understood as simultaneous or overlapping processes or, perhaps, as constituents of the same process. However, reflection should be considered a vital element in teaching, learning and assessment. By identifying additional essential competencies and modelling how to review human interaction, integrated and reflection-based assessment enhances students' training. Thus, assessment is closely linked to the main objective of the social work study programmes.

For example, the internship phase of the part-time social work study programme at the Fachhochschule Campus Wien has the following goals: systematically observing and reflecting on the processes unfolding in cases; recognising, describing and explaining the client's problems; reflecting on one's own role as an intern in communicating with clients, mentors and team members; gradually starting to operate as a social worker; and reflecting on one's own professional activities.

Social workers have an important responsibility to their clients. Mistakes caused by inexperience or ignorance can have serious consequences. Therefore, during internships students observe experienced professionals and reflect on their practice. Only after having gained adequate internship experience are students allowed to work directly or independently with clients. Reflective discussions throughout their internship develop in students an ability at independent reflection. Teachers, mentors and students themselves can evaluate each student's skills development. This assessment is then used in planning the following stages of the learning and teaching process; for example, as a basis for deciding whether an intern is ready for independent work with clients. Furthermore, reflection encourages students to improve their professional activities and try out new ideas discovered during the reflective discussions. In this way, the approach described here is also related to Dewey's (1938) learning-by-doing or Schön's (1987) education of the reflective practitioner.

ESTONIA. In nurse training in Estonia, practice-oriented assessment constitutes an integral part of the learning process. During the studying period of 3.5 years there are several

training periods evaluated by the medical school, the instructors at the training place and the students themselves. In addition, all clinical courses conclude with a complex exam including both a theoretical test and a practical trial. Practical training periods motivate students best when they bring them into immediate contact with their future job. In addition to offering students experience with performing nursing tasks, an authentic work environment also develops other important professional competencies such as teamwork or communication skills. Further, during those practical training periods when the students are accumulating work experience by taking on various nursing roles, confronting suffering and death, and learning to overcome their own fears and worries, they are also constructing their professional identity (Munnuka 1999).

Throughout the entire studying period, all documentation on the assessment of a student's practical training is gathered into a portfolio or, at Tartu Medical School, recorded in a study-credit book. They enable the students themselves to follow their professional development throughout the years. Face-to-face meetings with workplace instructors and seminars at the medical school together with a teacher and co-students are most valuable. These discussions teach a student to evaluate their own work, reflect on what they have learned from a particular experience gained at work.

FINLAND. In Finnish VET, assessment is part of learning and its aim is to guide and motivate the student to learn and give them self-assessment skills (Laki ammatillisesta koulutuksesta annetun lain muuttamisesta 15 July 2005/601; Valtioneuvoston asetus ammatillisesta koulutuksesta annetun asetuksen muuttamisesta 21 July 2005/603). Elements which make it possible to combine learning and assessment are included also in the assessment of vocational skills demonstrations. A vocational skills demonstration is a new form of assessment which is usually carried out during students' on-the-job learning period. The demonstration consists of specific vocational tasks defined beforehand. An important component of the vocational skills demonstration is the assessment discussion, which promotes the learning process by recurring after every demonstration of vocational skills. During the assessment discussion the student, among other things, receives guidance and feedback from the teacher and the workplace instructor and also vice versa.

Well somehow I feel and many workplace supervisors too have said in this way that those assessment discussions the way they are for all us three parties who are taking part they are always like these development situations so that I at least pick up something new every time and many supervisors say it out loud that, that they too, like, profit from those discussions and I expect it's a learning situation to the student too if only they know how to take it that way because it always leads to what you could call a little bit more general discussion about things too. (Teacher.)

Furthermore, the workplace instructor and the student naturally talk about the student's working methods also during the on-the-job learning period, which similarly promotes learning.

As I see it, there mustn't come a situation where the student advances as if in some pitch-dark tunnel, that they have no idea about how they're doing ... and then there they await fearfully what's to come assessmentwise. As I see it, there shouldn't be any surprises any more during assessment. Those things must ... I mean you must give them this feedback all along the way all the time, and absolutely honest feedback at that, so that the student really knows how they're doing. (Workplace instructor.)

Moreover, student self-assessment and reflection are elements which link the assessment of vocational skills demonstrations and on-the-job learning closely to the learning process. (See Figure 2.1.) Students assess their learning in relation to their skills test and their on-the-job learning, and their self-assessment is one of the topics considered during the assessment discussion. Reflection is present throughout the on-the-job learning process.

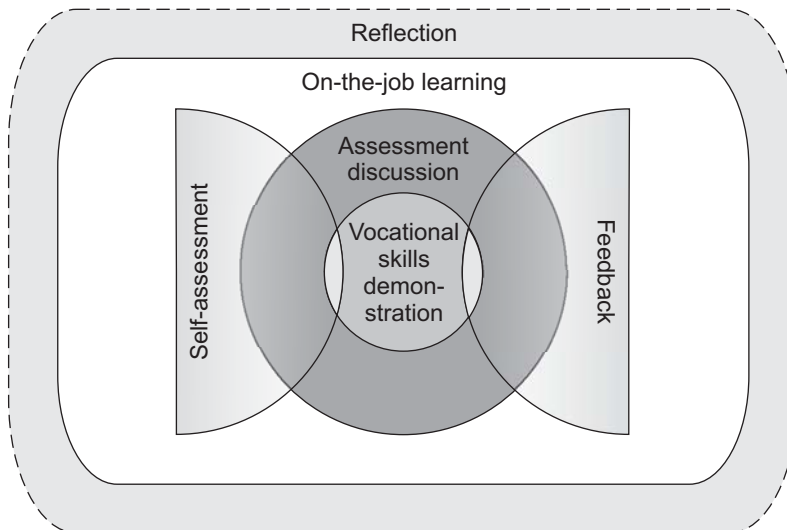


Figure 2.1 Assessment of vocational skills demonstrations as part of the student learning process in Finnish VET

GERMANY. In Germany, two types of practice-oriented assessment, *Praxisbegleitung* and *Praxisbeurteilung*, are an integral part of vocational learning in geriatric care education. *Praxisbegleitung* is conducted in the first and third year of the study programme by a teacher from the school of geriatric care. The teacher visits the apprentice at the institution where they are doing their practical training and asks them an exam question requiring them to plan, implement and document a real-life geriatric care intervention. *Praxisbegleitung* is a simulation of the practical part of the final programme examination and an assessment conducted in the context of real-life geriatric care. The aim is to examine how far students have transferred their learning to nursing practice. Self-reflectivity is another aspect of the feedback discussion. The results of the assessment are documented on an assessment sheet. *Praxisbegleitung* places the apprentice in a situation where they have to deal with an authentic and complex nursing case in a way that accords with the rules and principles of practical nursing; in other words, they must manage the situation in an appropriate and efficient way.

Praxisbeurteilung is performed at the practical training institution at the end of the first and third year of training by the practical supervisor. It is based on observations on the nursing practice of the geriatric care apprentice. A practical training supervisor describes the assessment procedure as follows:

There is a follow-up form covering the whole year of practical training. A preliminary discussion takes place. It is documented together with the learning targets and also the wishes of the apprentices. This is done at the start of the training year. After the first six months there is an interim discussion. The preceding six months are reflected on and room for improvement is identified. The student has an opportunity to articulate their criticisms and wishes, and there are comments also from the supervisor of their practical training. This is documented but no marks are given yet. At the end of the year there is a closing meeting and that's where the students received their marks, at the end of the first year. (Practical supervisor.)

In several respects, both forms of practice-oriented assessment are part of the learning process. First, they are carried out in real-life practical contexts and contribute to the student's pursuit of mastery of nursing and an ability to cope with complex nursing situations. Second, the tasks used in the assessments are based on the compulsory sections of the training regulations (occupational list). The assessor documents the sections which are completed. Third, because both assessment exercises are bound up with an evaluation discussion and a self-assessment, they promote vocational learning. Finally, the assessment exercises play an important role in motivating students to learn. As the teachers observed, they enhance learning motivation.

IRELAND. Within the context of Dublin City University, the School of Education's BSc in Education and Training is a vocationally oriented programme for those interested in training or in entering the field of vocational education and training, with particular emphasis on adult education. One of the main aims of the programme is to develop practical skills necessary for competent practice of adult education and training, particularly in the emerging fields of personal development, community- and work-based learning and ICT in education and training. (Dublin City University 2002.)

According to the chairperson of the degree programme "it is the aim of the School's programmes that all the students gain through the assessment process". Throughout their studies, the students on the degree programmes are helped to evolve the skills needed to successfully enter into a continuous cycle of learning. It is hoped that the student will bring these skills into the workplace and continually apply their teaching to changing contexts. As a lecturer in the School of Education Studies and one of those interviewed for this study, suggests:

if you accept that education is a profession, then educators are people who are continually trying to improve their own professional practice in such a way as to allow them teach better or educate better and that is what you are trying to do. And how do you do that? Well, you go back to, maybe one of the most important thinkers in education over the last thirty years which is Schön and he talks about reflective practice. It is the idea of sitting down and reflecting on what you do in order to improve what you do the next time you do it. And that should be the fundamental principle that you have.

A constant reiteration of the philosophy and practice of continuous reflection ensures that the student is engaged in a detailed, continuous examination of their own practice. This occurs through regular formative assessment modes. On the basis of data generated from their assessments, the student is encouraged to find and develop the links between practice and theory through this cyclical process. This mechanism allows the student to firmly focus on the connections that exist between all elements of the teaching and learning process, which in turn emphasises the primacy of the relationship between assessment and learning. A second reason for this approach is to inspire the students to develop the competencies required for working in their chosen sector and encourage them to value assessment as part of the learning continuum. Another practical strategy used to reinforce the link between assessment and learning is that of the feedback report. This report is based on a criterion-referenced marking scheme. Upon the completion of each assessment the school furnishes the student with a detailed written feedback which is matched to a range of learning outcomes. Though this is time-consuming, it is done with the intention of

facilitating the students' learning process. The marking sheet maps the students' work against this set of criteria and explains where they might find room for improvement. Each student is given a copy of this feedback and is free to discuss it with their tutor. This is a slow process but it does ensure equity, openness and validity. More importantly, it ensures that even if the outcome of the assessment may not be what the student hoped for, an opportunity is created for greater learning to occur through reflection and positive feedback. Through its programmes the school also endeavours to highlight the integral part that assessment plays in teaching and learning and to show that it is interlinked with and co-dependent on the other key elements in the process. As a lecturer points out, "there is no point in having an assessment as being the be-all and the end-all of the programme, particularly in a complex area such as education".

2.2 Reflection

In vocational education settings, reflective practice can be both an aid to critical thinking and the development of existing knowledge and a tool to promote autonomous deep learning (Biggs 1999) through experiential enquiry.

When reflection is incorporated into practice-oriented assessment as a key component, learners pass beyond the passive assimilation of mediated knowledge (Hinett 2002) to the more complex and problematic areas of vocational learning where context plays a major role. It is within these complex contexts, what Schön called the 'swamps' (1983) that reflection serves the learner best. As Schön (1983) points out, reflection involves tacit, intuitive thinking: "we exhibit it by competent behaviour we carry out, but we are often unable to describe what it is we do". This is not because learners lack the appropriate vocabulary to verbalise their activities but because the discourse of intuition and "gut feeling" (Schön 1983) has more to do with emotion and feeling than with cognition. As practice-oriented assessment occurs most commonly in vocational settings, learners reflecting on their action in these environments need to move beyond the cognitive and psychomotor domains of learning into the area of professional competence. It is within this affective domain (Bloom, Englehart, Furst, Hill & Krathwohl 1956) that deep learning often takes place (Biggs 1999) and where learners make the required schematic connections.

Reflection in formal education is not new. Kolb (1984) identified reflection as playing a key role in experiential learning. Added to this, Schön (1983) argues that reflection is necessary if practitioners are to improve their professional judgments and their understanding of new situations. Within the experiential learning model as set out by Brown & Knight (1994), feedback as part of the reflection process can also be an excellent motivator to promote students' engagement with a task or assignment. Clearly the

experience of reflection as part of practice-oriented assessment is beneficial to students. They not only learn about the complexities of action, reflection and improving their own practice but they begin to comprehend the balance between theory and practice and, moreover, according to Boud, Keogh and Walker (1985), to understand the nuances of their own real-life experiences as guided by feelings and emotions.

2.2.1 Examples of Reflection

AUSTRIA. Social workers must be able to reflect on practical experience. Thus, the development of the ability to reflect must be a central element in social worker training. This involves establishing institutionalised structures of reflection, that is, a curriculum that deliberately provides students with space, time, and continuity for reflection on their actions and practical experiences. In the following examples of social work study programmes, practical experiences were assessed through integrated and reflection-based assessment. Reflective discussions are a part of various courses making up these study programmes; two examples are described below.

Guided Study and Reflection Seminar

In the part-time social work study programme¹, practical experiences are reflected on in the Guided Study and Reflection seminar. A teacher coaches 15 students that meet regularly once or twice a month. Teachers provide theoretical perspectives but student presentations and discussion are the primary component. Students think over their work experiences, their role as an intern, their professional identity, their motives for being a social worker or specialising in a particular area, their expectations, and how they manage working and studying at the same time.

Students' reflective discussions on their practical experiences in their seminar presentations are not only objective analyses of actions and reactions (asking the important questions about who, what, where and when) but also attempts by students to understand the motives and feelings of all the people involved in the given case – including themselves. Thus, students develop skills at giving thought to their own emotional reactions when working with clients. Examining their personal values and their individual ways of dealing with conflicts enables students to better appreciate the dynamics of professional relationships.

¹ Part-time study programmes are designed particularly with the working student in mind: courses are taught in the evenings and at weekends; elements of distance learning are applied; and if students have a job which is relevant to their field of study, this may be credited as equivalent to career-oriented practical training.

Students are also encouraged to consider the structural changes taking place in social work and thus gain a better grasp of new developments in their profession.

The seminar discussions, shaped by wide-ranging questions from the teacher and the other participants, are intended to improve each student's reflection abilities. Continually questioning and pondering on their cases teaches students to distinguish between objective descriptions, subjective interpretations, and evaluations of situations. In the seminar's reflective discussions, each student's perceptions and judgements are reviewed and placed in a broader context. Students thus expand their understanding of various perspectives on a single event. Furthermore, students are encouraged to meditate upon lessons learned from their experiences and the reflective discussion. As they familiarise themselves with the theory of social work and develop analytical skills, students are required to pay increasing attention on connections between theory and their actual work experiences.

Adventure-Based Outdoor Learning

The full-time study programme includes practice-oriented elective courses such as those involving the organisation of adventure-based outdoor learning (*Erlebnispädagogik*), with students designing and carrying out an outdoor weekend project for disadvantaged children from a social care institution. Two students work together to choose, according to their interests, an event on which to base the project (e.g. hiking, canoeing or horse riding) and then plan and organise everything from accommodation and the provision of food to various activities. They then carry out the weekend project together with the children and the children's carers. A teacher coaches the students over a whole semester.

Student projects are reflected on in different ways. Before an outdoor weekend project is carried out, the class discusses the planned event. Other students who have already completed their own projects can bring up their own experiences as "experienced and reflective practitioners." Immediately after the project there is a reflective discussion with the children's regular carers, who have also taken part in the weekend. Students review their weekend experiences and consider what they could learn from them. In addition, they write a report describing how they coped with each other, the child group, the carers, and the event. Apart from providing students with experiences, the course is intended to create an atmosphere where open discussions can take place and where students talk freely not only about their work but also about a basic requirement that effective social workers must fulfil: assessing their own feelings.

ESTONIA. The assessment and learning methods used in both Tallinn and Tartu Medical Schools develop, among other things, students' reflective skills. Several training periods in different hospital wards enable them to construct a picture of future job opportunities in

the medical field. Students regard training periods as important because they experience them as part of their future professional career. At the same time, training places can be seen as possible future workplaces.

The assessment tools used at Tallinn Medical School include portfolios where all assessment documentation and additional papers are gathered together by the students themselves. Portfolios enable students to analyse their professional self-development during their entire studying period. Students learn to evaluate their own work, reflect on what a certain training experience has taught them. In Tartu, portfolios have quite recently been replaced by study-credit books with the same function. Staff at Tallinn Medical School report that they have been discussing whether it would be better to switch to bound study-credit books, but so far they have preferred portfolios.

Honestly, I think portfolios are better. In the sense that if I have the book I take it with me and I don't have any personal responsibility for it. I get my credits written down and write in some stuff of my own but it does not grow into this kind of portfolio. No development will become apparent. I fill in the blanks, but will not see any beautiful self-development ... With a portfolio a student has more freedom to include other stuff in addition to compulsory documentation ... (Teacher trainers, Tallinn Medical School.)

Meetings with a trainer and seminars with co-students held at the medical school during the practical training period foster in students an ability to reflect on their training period in a new way. Before practical training at a hospital starts there is a seminar at the medical school where the aims of specific types of training and related documentation are discussed. At Tallinn Medical School there is another seminar halfway through the training period. During four hours, the student doing their practical training exchanges problems and different feelings with their co-students and a teacher who operates as a trainer at the medical school. There is also a discussion on questions concerning the report and the patient treatment narrative that the student must write and defend at the end of the training period.

FINLAND. In Finnish VET, assessment discussions arranged after a student's vocational skills demonstrations are central learning and development situations, involving both shared and individual reflection among all the participants: the student, the teacher and the workplace instructor. Assessment discussions include a self-assessment by the student.

In addition to reflection related to assessment discussions, vocational skills demonstrations and on-the-job learning periods have generated reflection not only among what may be called the primary learners, the students, but also among the workplace

instructors and the teachers. Workplace instructors have reported that supervising students has made them think over their own ways of action and working methods and their approach to instruction. According to the workplace instructors, advising students helps them to find new viewpoints on their work, preventing their own job from being reduced to routine. Operating as a workplace instructor has increased employees' work motivation. Some workplace instructors have even become interested in developing themselves as workers by drawing on the criteria on which students are assessed.

Well, I personally [think] quite seriously that in that sense this student supervision thing is really quite ok, I mean that when you're doing, when you've been doing this [your job] a long time as it were, it becomes this routine of its own, but then when you're supervising a student, so when you find yourself, like, really thinking about these your own working methods, means, about if they have necessarily been all that right and good when you've always done [your job] without giving them any further thought but then when you start speaking them aloud to other people, that really makes you realise yourself and pay more attention to your working methods when you're acting with a student in what they call an exemplary way. Yes, that's what happens then. (Workplace instructor.)

Teachers, again, feel that the implementation of vocational skills demonstrations has broadened their perspectives and helped them to keep up to date. Conducting vocational skills demonstrations has forced teachers to get to grips with the essential issues included in a study module or qualification. This has given them a better understanding of the structure of the instruction they give. Moreover, teachers have had a central role in the process of introducing vocational skills demonstrations to working life. This has required them to learn how to convince its representatives that this new procedure makes sense.

IRELAND. One of the principal aims of the programmes offered by the School of Education Studies is to encourage a process of reflection on practice. This is achieved by linking the student experiences to the programme's conceptual frameworks and relating this insight to their workplace. The concrete ways in which reflective practice is featured in practice-oriented assessment contexts can be found in the school's Teaching Practice module. Here students are placed in an educational/training setting where they rehearse and apply a range of teaching, facilitation and evaluation strategies. The module allows students a substantial period of guided and self-guided work-based teaching practice.

As part of the assessment of the module, students enter into *peer-based critical reflection* on the process. They also observe and describe the key interactions in a learning situation. Engaging in this process develops the students' grasp of the link between skills practice and

classroom implementation. The students' understanding of their own approaches to assessment in educational settings is similarly promoted through implementation, practice and *reflection*.

The student is offered other opportunities to undertake *personal reflection*. One such method is a written assignment which recounts a student's experiences of and conclusions about their supervised teaching programme. In addition, and running concurrently throughout the module, the student engages with a virtual learning environment which is hosted by the university. Here the student, interacting with their peers, *reflects* online on their experiences from teaching practice. This dialogue can also be accessed by the module coordinator. These *reflections* allow the student to reach support and guidance throughout the process. The various stages and methods used in the assessment of the module are outlined in Table 2.1 below.

Table 2.1 The Supervised Work Based Practice Process

Student activity	Assessment process
<p>1. Student teacher delivers first observed lesson in educational/training environment. This lesson takes place in the early stages of a twelve-week teaching block that the student delivers in the education/training environment.</p> <p>2. Student teacher delivers second observed lesson. This lesson usually takes place towards the end of the twelve-week block.</p> <p>3. Throughout the teaching block the student teacher uses the virtual learning environment in DCU called MOODLE to reflect online on their teaching practice experiences and learning.</p> <p>4. The student completes an individual written assignment which reflects on their experiences of and learning from their teaching/training.</p>	<p>1. First visiting teaching/training expert from the university observes the lesson and then meets with the student teacher to discuss and agree on areas of achievement and areas for development in the student's teaching practice.</p> <p>2. Second visiting teaching/training expert from the university observes the lesson and then meets with the student teacher to discuss and agree on areas of achievement and areas for development in the student's teaching practice. The two visiting experts then come together to discuss the student's teaching practice and to agree on a mark for this element of the assessment.</p> <p>3. This online environment is accessed by the student teacher's peers and course coordinator. This forum facilitates ongoing guidance and support from three perspectives: the student's own reflections, the student's fellow trainee teachers/trainers and the course coordinator.</p> <p>4. The written assignment is corrected and marked by the course coordinator.</p>

Another example of *reflective practice* in the assessment methods used by the school in its modules can be found in the Microteaching module Table 2.2. This involves two students working as a team to deliver a series of short lessons over a semester in an authentic or simulated, learning environment to a number of their peers using a range of teaching strategies and resources. This process is video-taped and then critically analysed by an external teaching expert and the student pair. It is also peer-reviewed by the student teachers and their student group under the supervision of the teaching expert using a specially devised assessment sheet which provides the students with an opportunity to comment on each other's performance. The peer review happens at the end of each teaching episode, with the learning and the amendments to the students' practice integrated into the following week's teaching. This element of the assessment ensures that the student is involved in a continuous cycle of learning, doing, *reflecting*, amending and re-planning. This cycle ensures that the

Table 2.2 *The Microteaching Process*

Student activity	Assessment process
<ol style="list-style-type: none"> 1. Student teaching pair delivers a short ten-minute session to a small group of their peers. They practise a specific teaching skill or set of skills. 2. Student teaching pair delivers a second short ten-minute session to a small group of their peers, practising another specific teaching skill or set of skills. This is repeated over the course of the semester. 3. Towards the end of the semester the student pair delivers a lesson to their peers which incorporates all of the teaching skills they have been using up to this point. 4. The students complete a written assignment which reflects on their microteaching experiences and understandings. 	<ol style="list-style-type: none"> 1. This process is video-taped by the students. The teaching pair views the video tape and reflects on the specific element(s) of their teaching practice with a teaching/training expert using a specially designed assessment sheet. 2. This process is again video-taped by the students. The teaching pair views the video tape and reflects on the specific element(s) of their teaching practice with a teaching/training expert, again using a specially designed assessment sheet. 3. The video tape of this session is viewed and reflected on by the teaching pair and their peers using the same assessment sheet. 4. This assignment is corrected and marked by the teaching/training expert. The entire process allows the student to implement teaching strategies in a controlled environment, to reflect on their practice with the support of their peers and supervisors and to analyse and reflect on their experiences in a written assignment.

students are given the skills to continually examine and improve their practice as teachers. The students also discuss their Microteaching experiences individually in an end-of-module essay, marked by the course lecturer.

The constant reiteration of the philosophy and practice of continuous *reflection* in the examples outlined above launches the student into a detailed and continuous examination of their own practice. The student is encouraged to use this cyclical process to find and develop the links between practice and theory. This is a mechanism that allows the student to fully concentrate on the relationships that exist between all elements of the teaching and learning process, in turn emphasising the primacy of the relationship between assessment and learning.

2.3 Self-Assessment

Self-assessment is an essential principle behind good practices in the field of practice-oriented assessment. Competencies, including cognitive and meta-cognitive ones, are often associated with higher-level jobs, but Gerber and Lankshear (2000) argue that all workers become more effective when they reflect on and assess their own activity. Self-assessment is a central part of the vocational skills needed in working life. The employer defines a certain level of quality to be achieved in the given job, and the employee must be able to plan their work and judge when they have done it well. (Kinnunen 2003, 26.)

Self-assessment has been described as one of the major factors that improve the quality control of learning processes in education. Students want to know how well they are performing a certain task or tasks. Learners need information that will help them evaluate themselves so that assessment becomes integrated into the learning experience. (de Rozario 2002.) Students who practise self-assessment become more conscious learners and are able to apply their knowledge of their personal learning needs to new areas of study (Price 2005). In addition, their commitment to learning becomes more personal (Wiggins 1993).

Self-assessment is an extremely important tool for improving motivation and personal goal-setting skills. It helps students to become reflective practitioners. The ability to assess one's own learning is not easy to acquire. Therefore, external guidance and appraisal, such as from a workplace instructor or a teacher, are of significant help. (Brennan & Little 1996.)

Self-assessment is about a student reviewing the means by which they will be able to achieve their goals and the ways in which these are connected with the overall learning process and learning outcomes. The student also observes themselves as a learner. Self-assessment generates reflective learning, which has a transfer effect to other learning and work situations. (Väisänen 2003, 49.) Self-assessment requires an ability to observe and become aware of one's own learning and actions (Kinnunen 2003, 26). The student is also instructed to use feedback from the employer, fellow workers and customers as a resource

in their self-assessment. It is important that the student is able to discuss the feedback given to them and that they can draw on this feedback and discussion to develop their practice. (Kinnunen 2003, 26.)

2.3.1 Examples of Self-Assessment

AUSTRIA. In the Guided Study and Reflection seminar, students present and analyse their observations, their own practical experiences, and their job performance. They also receive feedback from teachers, mentors or fellow students. Students learn to know themselves better and gain a greater understanding of their work situation. Thus, these reflective discussions not only prepare students for basic social work but can also develop the important skills in reflecting on their own work situation and evaluating their own work and motivation: they evolve the ability to assess their own professional activity. Students become reflective practitioners in the sense of Donald Schön (1983). These skills enable students and social workers to husband their energies and avoid burnout.

Written assignments undertaken as a part of the Guided Study and Reflection seminar can also deal with issues involved in reflection and self-assessment as such. These assignments include a learning journal, a reflective diary or, at the beginning of their studies, a "Letter to Myself" in which students outline explicit personal and professional goals. Thus, when they have completed the programme students can judge whether they have reached or revised their goals.

ESTONIA. Throughout the entire studying period at Tallinn and Tartu Medical Schools, student self-assessment plays a considerable role. Gathering documentation into a portfolio or a study-credit book, assessing their competencies after every training period, and recording their nursing activities in different medical institutions involves the student in a continuous appraisal of their professional self-development.

Both in Tallinn and Tartu, assessment sheets have been designed as tools for estimating how successful a training period has been. In assessment sheets used in Tallinn Medical School, students are themselves asked to evaluate their theoretical knowledge, practical skills and other competencies, such as their proficiency in Estonian and Russian, familiarity with professional terminology, understanding and execution of orders, ability to cooperate, communication skills, manners, ethics, punctuality, and self-management skills. The apprentice is required to assess their competencies on six-point scale before and after their practical training period and also comment on their marks on a standard form. Staff at Tallinn Medical School explain that double appraisal of this kind is necessary because it forces students to reflect on their strong points and on the competence that they must develop during the training period. After the student has assessed their competencies, a

hospital trainer is asked to give their evaluation and also comment on their grading, again on a standard form. However, students find it difficult to assess their practical skills before they have tried them out in practice. Another concern that is voiced both by the students and the hospital trainers has to do with the fact that the students are required to do their self-assessment before the trainers give their own evaluation. The trainers also feel that seeing a student's self-assessment can influence their own markings.

I would prefer seeing the student's self-assessment only after I have done my own assessment. I mean the assessment that is made after the training period. When the student self-evaluates before the training period, it is understandable that this is necessary. The problem is that when I start giving my own assessment and see her assessing herself as "perfect", I feel ... It's as if I would like to give her "very good" as "perfect" is already something very special, then I might make her a present of it then. (Nurses-cum-hospital trainers, Tallinn hospitals.)

In this respect, the assessment procedure used in Tartu Medical School is a better practice. There the assessment sheet similarly asks students to judge their own performance, but their self-analysis comes after the evaluation by the hospital trainers.

The student is required to use a standard form to discuss different aspects of their competence and the training they have received: 1) appraise their theoretical knowledge and their application of it; 2) analyse their personal traits (I as a learner, I as a nurse); 3) evaluate the training environment and the guidance they were given during the training period; 4) analyse how well the aims of their training have been achieved.

FINLAND. In Finnish VET, self-assessment is part of both on-the-job learning and vocational skills demonstrations (Väisänen 2003, 49). The assessment discussion between the student, the teacher and the workplace instructor plays a focal role in self-assessment. During the discussion, the participants consider the student's self-assessment and the students are given an opportunity to explain the reasons behind their decisions. Moreover, the teacher and the workplace instructor offer the student feedback, provide guidelines on the student's development and explain why they are proposing a particular grade. The aim is to find an agreement on the grade to be awarded. (Vehviläinen 2004, 62.) A meticulously organised assessment discussion is an essential means of fostering students' vocational development and the evolution of their self-assessment skills. (Vehviläinen 2004, 65.) Students are required to assess their own learning throughout their studies.

Teachers consider that the new, well-defined and more concrete assessment criteria related to the implementation of vocational skills demonstrations have made it easier for the students to assess their learning. In the teachers' opinion, today's students also have

better self-assessment skills. However, many of them still find self-assessment difficult, particularly at the early stages of their studies. Despite these difficulties, the students feel that it is essential to be able to evaluate their own work. Self-assessment offers students a chance to identify their personal vocational strengths and weaknesses and become aware of their development needs.

Student: Well, this self-evaluation, it is, like, this that we must all ... I assess myself, then this instructor at the workplace, well they have they are certainly similar but in my opinion, [what's] important is, in my opinion everyone should be able to assess their own performance. When you assess yourself like this you become aware of those [things] that might be amiss and what, again, works.

Interviewer: Have you found it how easy or difficult, this doing a self-assessment?

Student: Well of course, it's at times a little I mean ... at first it was a little difficult I mean because you were thinking that you cannot assess it, for example when you were supposed to assess the final grade because you got this feeling that can I give myself five points even though I feel that it should be five points but on the other hand, should I give myself four points after all, what with things, but now alongside my studies, well you've realised that we aren't professionals yet, that you can assess yourself simply on the basis of what is now of course assess yourself honestly. Not placing yourself too high. On that basis ... after all, self-evaluation is about what you yourself believe about, like, your own performance that

Usually the opinions of the workplace instructor, the teacher and the student about the grade do not substantially differ, and the three parties can come to an understanding. According to the teachers, one advantage that more systematic self-assessment, when implemented together with the vocational skills demonstrations, has generated is that students are more familiar with the idea of committing themselves to their own work. They are also used to being evaluated. Better skills in assessing themselves and in being assessed by others has made the students more mature and thus better equipped to enter working life.

GERMANY. Self-assessment plays an important role in German VET, especially in the context of the nursing professions. In the nursing sector, it is essential that apprentices are able to assess the effect of their actions on other people. Technical occupations, above all in big companies with their own vocational education and training departments, are another area where self-assessment is becoming more and more important. Assessment instruments used in practical training in companies like DaimlerChrysler or Deutsche Telekom also include elements of self-assessment. For instance, at DaimlerChrysler

apprentices are required to assess their own key qualifications (*Schlüsselqualifikationen*) and comment on the assessment results (DaimlerChrysler AG 1999). Compared to this, in the VET provision of small and medium-sized enterprises self-assessment probably plays a lesser role.

A case study of an institution of geriatric care education found that self-assessment is an important element in nearly all practice-oriented assessment instruments. Among the topics covered on the assessment sheet employed by the practical supervisor during what is known as *Praxisbeurteilung*, “the ability to conduct self-assessment”, that is, “self-assessment of own abilities and the ability to identify personal limitations”, is an important dimension (Schule für Altenpflege 2005, 10). Similarly, the practice-oriented assessment of nurse apprentices by a nurse teacher (*Praxisbegleitung*) includes a comprehensive apprentice self-assessment discussion. A teacher responsible for *Praxisbegleitung* describes this discussion as follows:

Afterwards there is a detailed discussion with the apprentice. The objectives of this discussion are: which things have been positive and good, what are the student's competencies ... they have to work these out and they are also given a mark.
(Teacher.)

At least at the level of the learning targets listed the training regulations, self-assessment has an important role in the nursing sector. The ability to assess one's personal competencies is labelled “self-perception”, the capability to assess ones' methodological competency is termed the ability “to appreciate one's own role and position in the nursing situation”, while the capability to assess one's social competencies is designated the ability “to appreciate and address personal conflict within the nursing profession” (Schule für Altenpflege 2004).

In the context of nursing education, self-assessment must fulfil two functions. First comes an examination of how the apprentice observes themselves while performing nursing tasks. Second, apprentice self-assessment is also an instrument of self-control used by the assessors. That is, self-assessment enables the assessor to investigate how well the apprentice has understood the exam questions.

2.4 Feedback

The primary goal of an assessment practice should be not only to provide teachers and future employers with information about a student's learning outcomes but also to promote the student's learning process by offering them continuous feedback. The provision of real-time feedback during their entire studying period motivates students and helps them self-assess their learning. (Custer, Schell, McAlister, Scott & Hoepfl 2000.)

Students are actively involved in the feedback process as partners of a teacher or workplace instructor. Marks and written commentaries are complemented, as important elements, by face-to-face interaction and the tutor's oral evaluation. An assessment process that is collaborative and reflective helps students to become aware of and themselves assess their performance. Assessment is most effective if feedback is given during the learning process itself, not only after the evaluation has been completed. Thus, the emphasis should be shifted from measurement as an end goal to assessment as a continuous process. (Custer et al. 2000.)

The conventional definition of feedback is probably too limited and refers mainly to a one-way process of communication. Therefore, it is necessary to expand the notion of feedback to a two-way communication process, where students are active participants in the learning process. Feedback should be an integral part of the educational process, continually providing both feedback and feed forward. (MacDonald 2000; Weeden, Winter & Broadfoot 2002, 13)

2.4.1 Examples of Feedback

ESTONIA. Providing students with real-time feedback is as important as setting goals for their training period. Tallinn and Tartu Medical Schools have both put a great deal of effort into designing assessments sheets and preparing hospital nurses to function as trainers. The problem is how to make the trainers take the students' training and assessment process seriously. According to students, there is often variation between training places and trainers in how thoroughly the trainer discusses their assessment with the student or in whether the assessment discussions involve the three parties consisting of the student, the training instructor and the teacher trainer. The importance of face-to-face communication in the assessment phase has been stressed as an extremely relevant factor.

And then this second column is one that needs to be discussed and there you actually see how they're doing because a mark alone doesn't convey the process. But this characterisation is where the trainer has an actual opportunity to analyse what happened during the [training] period. The idea is also giving the student feedback on those areas where she needs to develop herself and the areas where she's already perfect. (Nurse trainers, Tartu University Clinicum.)

There are very positive examples where assessment sheets are filled in very carefully, containing several comments, in addition to the student being given a 45-minute face-to-face meeting where the trainer explains her evaluation and discusses both the strong and the weak points of the student's training. However, students also remember occasions when

assessment sheets filled in another room are handed out without any additional comments being made.

FINLAND. In Finnish VET, the assessment discussion brings together three different viewpoints on student assessment: the student's, the teacher's and the workplace instructor's. During this discussion, the student's performance in the vocational skills demonstration is examined. The assessment focuses on the student's command of working methods, tools and materials, their mastery of work processes and occupational safety, common curriculum emphases (e.g. use of technology and information technology and entrepreneurship), core competencies common to all study fields (e.g. problem-solving skills and interaction and communication skills), and the student's command of the knowledge that forms the foundation of work (Kinnunen 2003, 71). The assessment discussion includes also student self-assessment.

In this discussion, the teacher and the workplace instructor give the student feedback, provide guidelines on the student's development and explain why they are proposing a particular grade. The aim is to find a consensus on the grade. (Vehviläinen 2004, 62.) The assessment discussion offers also the student an opportunity to present feedback of their own and share their thoughts on vocational skills demonstrations and assessment situations (see also Harrinkari & Vertanen 2004, 55). As was pointed out earlier, a carefully organised assessment discussion is an essential means of fostering students' vocational development and the evolution of their self-assessment skills (Vehviläinen 2004, 65). Moreover, being able to arrange a shared assessment discussion promotes cooperation between education and working life. The assessment discussion is all the more important because the teacher seldom has a chance to observe the actual vocational skills demonstration (see also Vehviläinen 2004, 64).

We have certainly tried ... we haven't gone for arrangements where there'd be only the workplace instructor and the student or the teacher and the student there but instead those three, all three have always been present, all have been there, and we start with self-evaluation, the student starts and then the workplace instructor and the teacher can follow up with more specific questions there during the process and after it then the workplace instructor gives this their assessment too and then the teacher can ask the workplace instructor too about their reasons if there's something where the teacher thinks differently or they get a different impression that those criteria haven't been used in it. The aim is to use those criteria to assess it so that it isn't at the "it seems to me" level but instead [the question is whether] the activity discussed in it describes precisely this particular criterion and they talk about this ..." (Teacher.)

During the assessment discussion the student, the teacher and the workplace instructor can together consider the following questions:

- What were the areas where the student was successful?
- What are the areas where the student still has room for improving their performance?
- What would the student now do differently?
- What is the student still not able to do and how could it be learned?
- What would the student like to learn more?
- What has the student learned outside the learning targets?
- How can the student develop their performance in the future?

(Kinnunen 2003, 28.)

2.5 Authentic Context

Assessments conducted in real-life work situations are an important aspect of good practice. Authentic means genuine, real and realistic. It is the occupational setting where the learner will eventually have to work that represents the authentic context for assessing what has been learned in vocational education. As a rule, mastery of a certain occupational task is evaluated in this context. At the core of an authentic context is an occupational task which the student taking the test must address themselves to and cope with. The learner's mastery of the assignment will be direct evidence of their ability to cope with their occupational tasks. It is common for actual assessment procedures to show various degrees of departure from this conceptualisation of authenticity. For instance, in normal situations professional assessors would not be present, or sometimes safety requirements make it impossible to assess real-life performance (e.g. landing a plane). In such cases, simulations must be used instead. In nursing education, it is actual nursing processes that would be a real-life assessment context. However, an assessment context of this kind can violate the privacy of sick or old people. Also, in such an authentic context the presence of assessors can affect the assessment results. Because of these considerations, sometimes simulated nursing activities are appraised.

2.5.1 Examples of Authentic Context

AUSTRIA. On the social work degree programmes offered by the Fachhochschule Campus Wien, internships (work placements) are obligatory elements which students serve at different times during their studies. When placed in an institution for an internship, students are given mentors who are experienced practitioners in their field.

At the beginning of their internship, students mainly observe experienced team members conducting counselling interviews, providing information, answering calls on the hotline, visiting clients, assessing client needs, accompanying clients or representing them in court and so on. Usually, after counselling a client the experienced social worker discusses the case with students. Towards the end of the internship, students are normally allowed to communicate and work directly with clients. Their first client contacts are supervised by their mentors in particular. At first, for example when a student answers hotline calls, there may be a mentor sitting next to them and monitoring their actions and giving immediate feedback. When students have their first face-to-face interviews with clients, mentors may also sit in on to observe. However, practitioners mentioned that they prefer waiting outside the room where the student and the client have their meeting so as not to undermine the student's authority and make the client feel insecure. When the student has finished the interview, they can go outside and tell the mentor about the situation and what they did or what they want to say to the client. If the mentor finds that the student is doing well, they can officially finish the interview with the client. If the matter is more complicated, the mentor will either help the student solve the problem or take over the case. In this way, students' competencies are evaluated in an authentic context.

Assessment in the form of reflective discussions goes on throughout the internship. There can be regular feedback sessions to talk about and reflect upon a student's feelings, their learning processes, and, on the basis of ongoing cases, the development of both their professional and social competencies. These include conducting an interview, keeping calm in difficult situations, maintaining good contacts with clients, acting politely and in a friendly manner, speaking clearly, and realising when clients do not follow what the social worker is saying.

ESTONIA. Unlike in the case of most occupations for which Estonian VET institutions prepare their students, with programmes where only a small proportion of practical training is provided in a real-life work environment, most of it being given in school workshops, every so often with obsolete equipment and machinery, the nurse education curriculum requires that all practical training be delivered out of school. The proportion of training taking place in authentic work environments is laid down in EU regulations.

Before students start their hospital training, they acquire a theoretical knowledge base and the first practical skills of their future trade in pre-clinical classes. All clinical courses end with a complex examination consisting of a theoretical test and a practical examination of nursing procedures. To a certain extent, authenticity is sought after also in these tests by furnishing the classrooms with imitation hospital beds, dummy patients, dummy babies, facilities and instruments used in real hospitals. However, students place more value on learning and assessment in authentic work environments.

Student A: *This kind of learning is extremely difficult when you say, let's do it as a game ... It's not like learning. You need to learn by working ...*

Interviewer: *Which is more difficult, when they assess what you are doing to a dummy patient or when they assess what you are doing to a real person?*

Student B: *Well, it depends ... With people you communicate and you make a certain degree of contact, but with a dummy, I find this doing things with a dummy extremely difficult.*

Student A: *You don't have a whole body, only the middle part of it and the teacher says ...*

Student C: *... that you must talk to him.*

Student A: *... communicate with him.*

Student C: *You go to a backside and say, Hello, I am C. (Students, Tallinn Medical School.)*

Apart from the complication involved in communication, it has been argued that a real-life work context makes for better feedback, contributing also to student self- assessment and reflective learning.

Several practical training periods of different lengths (8 periods in Tallinn Medical School and 13 periods in Tartu Medical School altogether) offer the student an authentic learning and assessment experience. During their training periods students become acquainted with different nursing roles in various real-life contexts, for example children's hospitals, surgery, psychiatry, neurology wards and so on, outpatient departments or old people's homes. Authentic work experience in several nursing roles also contributes to the student's construction of a professional identity – the student will perceive themselves as a future nurse.

However, to many first-year students their first contact with a real-life learning and assessment context may come as a shock. With no previous experience of the medical field they are suddenly confronted with suffering and death.

Student A: *... We landed up in a hooldushaigla where there were no healthy people. It was real shock therapy to us.*

Student B: *Yes, in your first year it really was that.*

Interviewer: *What was so frightening about it?*

Student C: *... the bedsores and ...*

Student A: *When we went to the hooldushaigla there were people there who were in principle dying ... And it was our first contact with death. We saw those wounds and things, all those ill people. It was really awful, though our training patients were called "healthy people", but they were far from it.*

Interviewer: *But what was the reason you landed up there ...?*

Student A: *We were given different options and we thought we would go full tilt.*

Student D: *It's interesting to have a real job.*

Student A: *Yes, it was a bit more frightening that we imagined ... (Students, Tallinn Medical School.)*

On the other hand, there were also positive perceptions of this highly authentic experience. Although the students were essentially thrown in at the deep end, over their first year they gathered a great deal of practical knowledge with the result that during their next training period they were not afraid of performing nursing tasks such as giving injections or cleaning wounds because they were already familiar with such procedures.

FINLAND. In Finnish VET, vocational skills demonstrations start from the principle that they will be carried out in work situations that are as authentic as possible (Suursalmi 2003, 18). A skills test is a performance or presentation acted out in the field, with assessment criteria based on the actual requirements of working life. The focus of assessment is on how the student uses and applies their knowledge and skills. The idea is that genuine and realistic assignments will help to train novices towards expertise and professionalism. (Räkköläinen 2005, 13.) In Finland, vocational skills demonstrations take place during the on-the-job learning period, but they can also be conducted in educational institutions or other places approved by the education provider (Laki ammatillisesta koulutuksesta annetun lain muuttamisesta 15 July 2005/601; Valtioneuvoston asetus ammatillisesta koulutuksesta annetun asetuksen muuttamisesta 21 July 2005/603).

From the viewpoint of authenticity, implementing demonstrations of vocational skills in the context of the on-the-job learning period can be considered the most suitable approach. In such cases the assessment situations, instead of being simulations, are genuine work settings. Furthermore, finding out whether the process and outcomes of vocational skills tests can be exploited in real life is a significant consideration. Demonstrating their vocational competencies through tasks and in a setting that are a constant of their future occupation makes skills tests more meaningful to the student. Moreover, an assessment setting that has already become familiar to them during their ongoing on-the-job learning period gives them a change to focus on the task itself without having to spend energy on

getting to know the demonstration site. Again, the assessment context is authentic also in the sense that the appraisal is carried out by a representative of working life, a professional in the relevant field. Finally, as a natural environment an authentic assessment context is also an unpredictable one: for example, the condition of an old person used in evaluating nursing skills can vary from day to day.

Apart from being authentic, the assessment context must fulfil also certain other requirements. The workplace must have adequate production and service activities and the requisite tools must be available. Further, workplace instructors with good occupational skills, suitable education and sufficient work experience must be found among the employees to supervise the student. (Laki ammatillisesta koulutuksesta annetun lain muuttamisesta 15 July 2005/601; Valtioneuvoston asetus ammatillisesta koulutuksesta annetun asetuksen muuttamisesta 2005/603.)

The choice of an environment for the implementation of a vocational skills demonstration depends on the content of the study module for which the student will be tested and on the availability of suitable workplaces. The availability of situations appropriate for skills tests, again, depends on such factors as workplace timetables.

GERMANY. In VET in Germany, both practice-oriented assessments and the practical part of the final end-of-programme examination are, particularly in the nursing professions, conducted in authentic contexts. In a few commercial and technical occupations – for instance in the new IT professions – the practical part of the final examination is administered in a way which is similar to what is known as the authentic context (Breuer & Müller 2000). That is, the apprentice must carry out and document a real-life work project or work task and present its outcome to the assessors.

In the geriatric sector, the occupational field covered in our case study, the practical part of the final examination has since 2005 taken place in a real nursing situation (Ausbildungs- und Prüfungsordnung für den Beruf des Altenpflegers 2002). According to the principal of the geriatric care school examined by us, assessment in a simulated context was abandoned because in an authentic setting, assessors are better able to evaluate apprentices' true nursing competencies:

Under the old terms, the practical assessment was carried out using a dummy. In my opinion, assessment in such a simulated situation had a limited capacity to show if somebody is able to act as a competent nurse. (Practical supervisor.)

A teacher at the geriatric care school considers that assessing students in an authentic context has a more profound significance:

For me it is important to observe, besides the technical performance, the way in which the apprentice deals with people. And this is something that I'm not able to see if the apprentice demonstrates their technical skill with a dummy. (Teacher.)

The advantage of authentic assessments is that apprentices must demonstrate their professional knowledge, their skills and competencies in a real-life occupational situation. That is, authentic assessment reveals plainly whether the apprentice is able to make use of their theoretical knowledge in a very complex practical situation.

If we consider authentic assessments from the perspective of the criteria of objectivity, validity and reliability, some critical points emerge. First, the nature of an authentic context of assessment can be determined by an uncooperative patient. An apprentice described this possibility:

We were the first course to be examined in a situation with a real patient. Before that examinations were conducted using a dummy. For me, this was a good thing. I was lucky, everything went fine in my case. Of course, things can go completely wrong, too. This is what happened to some of my colleagues. ... This is the professional problem and we have to deal with it. (Apprentice.)

Second, an authentic assessment context can be influenced by the assessor. Third, in the field of geriatric care assessments in authentic contexts can violate the privacy of sick or old people. Fourth, assessments in authentic contexts are impossible in many fields of occupational activity. Finally, authentic assessments make high demands on assessors' powers of observation and judgment.

2.6 Assessor/Mentor Training

Assessors' professionalism and training plays a key role in VET. The assessors who evaluate the vocational skills and competencies of VET students influence the students' prospects on the labour market at the same time as they also indicate the strengths and weaknesses of the vocational education and training received by the assessees.

To administer examinations and assess them professional assessors must be technically competent and should have state-of-the-art knowledge of the relevant occupation. On the other hand, they must also be able to handle specific assessment instruments competently so as to produce objective, reliable and valid assessment results. In VET, the different assessment instruments in use include observation, assessment discussions, written tests, work specimens and project reports. They make high demands on assessors and make it necessary to train them for their duties. Finally, assessors should have the communication

skills needed to arrange a positive examination environment where reliable and valid results are possible.

The different requirements on the professionalism of assessors cannot be met without training. Training is becoming an increasingly important component of professional VET assessment.

The indispensability of training is due also to the rapid technical changes reshaping occupations and the differentiation of occupational knowledge. That is, without technical training assessors would find themselves judging matters that they are not fit to judge. Another reason why assessor training is becoming more important are enhancements in the instruments of assessment (Tutschner & Wittig 2005). Finally, assessors must be trained to reduce the differences between the knowledge bases of the people making up boards of examiners.

2.6.1 Examples of Assessor/Mentor Training

AUSTRIA. The necessary preconditions of an effective process of integrated and reflection-based assessment include teachers and mentors trained and experienced in assessment of this kind. The social work study programmes at Fachhochschule Campus Wien need teachers and social workers (who might also be qualified supervisors, trainers or coaches) who have the know-how and skills required to help students to develop their own reflection skills and to understand the need for reflection; to give constructive feedback; to initiate and to maintain reflection processes; to evaluate such processes or the degree of reflection they involve; to work with groups; to create an atmosphere of trust and so on. For example, a student group taking the Guided Study and Reflection course is coached by a teacher who is an experienced social worker with an additional qualification as a supervisor. Workplace mentors are trained on special courses, but particular attention is paid, when selecting them, to their work-related background: as a rule, they are professionals employed in the social sector and are themselves experienced reflective practitioners. Thus, they are expected, in particular, to have useful knowledge, social skills and other competencies essential for successful social work. This professional background allows them to assess, on the basis of their practical experience, students' achievements, knowledge, and skills.

ESTONIA. Tallinn and Tartu Medical Schools have both been organising training for nurses responsible for the supervision of apprentices. These training programmes have two functions to fulfil – improving the standard of apprentice training but also changing attitudes among hospital staff. Older nurses operating as trainers in particular lack adequate pedagogical skills. They may have perfect practical skills, but the quality of student supervision suffers if trainers cannot analyse nursing activities together with the student.

Moreover, it has been argued that nurses lack motivation as trainers. This is explainable partly by the fact, brought up by the nurses themselves, that most medical school graduates prefer not to start their career in a hospital. Another reason for low training motivation has to do with the distinctive educational backgrounds of nurses who qualified during the Soviet period and nurses who are qualifying today.

Staff at Tallinn Medical School report that while five years ago hospitals in Tallinn were reluctant to take on apprentices, now they are starting to increasingly realise that by training students they are actually preparing themselves new employees. At the same time, thanks to those training classes nurse trainers are beginning not only to understand their role but also to have a better appreciation of the medical school curriculum and of what a student on a certain year does or does not need to know.

And I think lobbying has also made a difference in persuading nurses that a student is not freely available labour who does things that a nurse does not want to do. That those things are done together and also those unpleasant things are done together when attending a patient. And they don't say, "You go and do this because I don't fancy doing it ..." We have got to the point where trainers ask which year the student is on. Years ago they didn't ask it. They didn't ask whether you are first- or second-year. They just said that they [the students] are stupid, they don't even know how to give an injection ... Now I think we have succeeded with this lobbying and training so far that they ask what a student knows ..." (Teacher trainers, Tallinn Medical School.)

Nurses from different hospitals in Tallinn who had taken part in supervisor training were very positive about the new knowledge they had acquired. They said they had become aware that there are many things that are not learned at school or that are learned very superficially there and that should be acquired through practical training periods; knowledge of different medicaments was mentioned as an example.

FINLAND. Even if the representatives of working life who co-assess vocational skills demonstrations are experts in their own occupational fields, their basic education varies and they are usually not familiar with assessment practices and the administration of skills demonstrations. This inadequate know-how might lead to inconsistent and unequal testing and assessment procedures. That is why it is considered important that workplace instructors are trained in the implementation and evaluation of vocational skills demonstrations. Naturally, teachers should similarly be adequately trained. In Finland the different parties involved in conducting vocational skills demonstrations have been given free training by, for example, the National Board of Education and different projects

organised by vocational institutes. Preparing the assessors representing working life can consume quite a deal of time and money. On the other hand, the training given to workplace instructors can enrich their work.

Certainly, it's one of these [things] that brings employees [and] then these instructors more work motivation. The way we were thinking about this workplace instructor training, originally we had planned to send one employee but then another one ... but because she was so keen on it, so she [asked], couldn't she go too ... so then finally we decided to send another one there too. (Workplace instructor, social and health care.)

GERMANY. In the geriatric care sector, providing assessors with training is not mandatory. There is no legal regulation stipulating that assessors, that is, the practical supervisors who conduct practice-oriented assessment alongside geriatric care educators, be trained. There is only a discretionary clause recommending that practical supervisors should be given training to help them to perform their tasks, which include practice-oriented assessment.

In the institution of geriatric care education investigated in our case study, practical supervisors must be prepared for their duties, that is, they have to qualify themselves by further training of about 240 hours in the institution's own training centre. The training covers questions of learning, the organisation of learning, new learning concepts, and also assessment considerations. In addition, every two months the practical instructors come together for a meeting conducted by teachers from the geriatric care school to talk about, similarly, matters around assessment, marking and the use of assessment sheets.

Below, a practical supervisor describes in detail the preoccupation with assessment and marking that characterises a meeting of practical instructors:

At the meeting for practical supervisors we also discussed marking and marking criteria and we have also trained ourselves in how to behave during assessment sessions. Some of this I have had during former training courses (further training for practical supervisors, R.T.), and it's always good to refresh your knowledge. I came to realise that most of the practical supervisors were too rigorous about marking. In my opinion, this was a trend at all times. In practical supervisor training we have had a simulated assessment session. Two pedagogues were present for a day and we were supposed to assess their performance. (Practical supervisor.)

The teachers from the geriatric care school looked at in our case study hold self-organised weekly meetings to discuss teaching and assessment issues. They see assessment training as, above all, a process of self-organised training. The geriatric care school teachers have

collaborated on developing the assessment sheet for practical training (*Praxisbeurteilung*) used by the practical supervisor and another assessment sheet used by the geriatric care teacher to observe apprentices in practical situations (*Praxisbegleitung*). In the field of geriatric care, the assessors who evaluate teachers are prepared for their tasks primarily through self-organised continuing education and training.

In the German dual system, assessor training was long an issue of secondary importance. This was because the practical part of end-of-programme examinations consists of presentations of work samples, standardised multiple-choice tests and examination tasks with predefined solutions. There was little need for the voluntary assessors to be given special training.

Since a few years ago, the topic of assessor training, particularly in the dual sector, has come to play a more important role. Especially in the context of new occupations and new methods of assessment, for example in the new ICT professions, German chambers of industry and commerce are facing growing demands that examiners be given training; in response, they now offer examiners more training courses. These developments are due to a number of reasons.

First, the creation of new assessment instruments such as project tasks, project presentations and holistic tasks make great demands on assessor competencies. This trend is also reflected in the increasing number of complaints from apprentices against their examination results. This affects assessment validity: as re-assessments in examinations for ICT professions show, many assessed pupils believe that the new assessment fails to adequately record their vocational skills (Ebbinghaus 2004).

Second, the new assessment instruments, for instance project tasks, are time-consuming and call for efficient time management during examinations (Lennartz 2004). This contradiction between the voluntary nature of the assessors' contribution and the amount of time they are required to spend on assessment could be solved by training them. A member of an examiners' board for ICT professions commented on this issue as follows:

From the point of view of time consumption, the final examination is problematic. I have carried out a study of the question of time consumption at the final examination for the administrative body. Compared to the chemical laboratory assistant's examination, the ICT professional's examination takes twice as long. (Teacher and member of a board of examinations.)

Third, the rapid development of technology-related occupations makes necessary the continuous renewal of professional knowledge if assessors are to be able to evaluate students' solutions to technical tasks. The following quotation from a member of an examiners' board illustrates this problem:

It would be possible to obtain a project-work product from an apprentice who says they have developed a piece of software. But I'm unable to test or launch this program. There are examples like this, that is, students who submit software which fails to run or work and which was not designed by them. (...) If we are given descriptions of software which do not function, it is nearly impossible to discover this because I am unable to test the software. (Teacher and member of a board of examinations.)

These remarks demonstrate the importance, in the VET system, of training assessors so as to assure that the demands that examinations and assessment have to fulfil are met. In the German dual system, assessor training depends on the willingness of chambers of industry and commerce to finance and support such training. Therefore, developments in assessor training are often reactive rather than proactive responses. Thus, systematic training for assessors is often promoted in response to a growth in complaints about the state of assessment and to public concern about badly performed assessments and incompetently conducted examinations. Assessors' status as voluntary contributors is a further critical factor in their willingness to take part in training arrangements.

2.7 Transparent Assessment

Transparency is considered an important characteristic of an assessment because of the effect it is assumed to have on learning. Understanding the basis on which performance will be judged makes its improvement easier. (Linn, Baker & Dunbar 1991.) Establishing assessment criteria and making them transparent to learners before they are examined is a major factor in practice-oriented assessment. Therefore, it is important that students are familiar with the standards on which their test performance will be judged. Open communication between the different parties engaged in assessment is another precondition of transparency.

Internationally, transparency makes for easier comparisons between qualifications and competencies across countries. Transparent systems are more comparable systems. By increasing the transparency of formal competencies we improve the ability of individuals, companies and authorities to assess foreign qualifications. Increased transparency means also that it is easier to credit students for their previous studies or, in VET institutions, for work-based learning. (Rouhiainen & Valjus 2003.)

2.7.1 Examples of Transparent Assessment

AUSTRIA. At the start of each semester, students taking the social work study programmes at Fachhochschule Campus Wien are informed about the assessment criteria used on each course. These criteria are included also in the course descriptions presented on the web pages of the institution.

Furthermore, on the part-time social work study programme a method has been developed to help mentors assess an intern's competencies. Mentors at the workplaces are sent evaluation forms containing both open-ended and multiple-choice questions to be answered at the end of the internship. These forms are either filled out together with the student or the topics are discussed with them. The assessment topics test, among other things, the student's:

- knowledge of the training institution and its field of work, its clients, and a social workers' duties in the institution;
- ability to recognise, describe and explain clients' problems;
- capacity to reflect on their own work and their interaction with clients, the mentor and the work team; and
- preparedness to gradually assume the tasks of a social worker.

Furthermore, the student's achievement of the educational objectives of their internship are rated by the mentor on a scale of four performance indicators: very good, good, satisfactory, or sufficient. Finally, the mentor is asked to imagine how they would react if the student were a new colleague of theirs, describe what they would appreciate about the student as a colleague, and suggest skills that the student still needs to develop.

ESTONIA. In Estonian nurse education, transparency in the assessment of practical training has been assured by specifying the assessment components that the workplace instructor must take into account when making their appraisal. During the Soviet period, the practical training period was evaluated on the basis of a characterisation written by workplace trainers. It has been argued that those characterisations did not provide students with sufficient feedback on their strengths and weaknesses, nor were they transparent as it depended very much on the trainer whether they took the assessment seriously or whether they were, instead, content to add short remarks such as "good" or "keen". Nowadays both Tallinn and Tartu Medical Schools have elaborated a very detailed set of assessment criteria in order to ensure transparent assessment of a high standard.

In assessment sheets used in Tallinn Medical School, the students themselves and individual trainers at hospitals are asked to evaluate each student's theoretical knowledge,

practical skills and other competencies, such as their proficiency in Estonian and Russian, familiarity with professional terminology, understanding and execution of orders, ability to cooperate, communication skills, manners, ethics, punctuality and self-management skills. The assessment sheets used in Tartu Medical School cover similar qualifications. Hospital trainers are required to judge various skills of an apprentice, including their theoretical knowledge, different practical skills demonstrated during the training period, the apprentice's ability to cope with different situations, their ability to perform nursing tasks, communicate with different parties, their ethics and aesthetics. The above skills and competencies are set forth on the assessment sheet and evaluated twice, at the beginning and at the end of the training period, with additional notes complementing the assessment. In addition, workplace instructors write summary evaluations or characterisations.

In order to increase transparency, assessment should not be limited to filling in assessment sheets but instead the student and the workplace instructor should meet to analyse the training period face to face. In Tartu, at least in the case of training given in the town, three parties – the student, the teacher educator and the hospital trainer – come together to weigh the student's strengths and weaknesses.

FINLAND. In Finnish VET, the transparency of assessment is based on open communication and cooperation between the different parties involved in assessment. All those contributing to student assessment must be informed about the basic features and practical conduct of assessment, such as assessment targets and criteria, how grades are determined, and what must be documented in study records and qualification certificates (Ammatillisen peruskoulutuksen opetussuunnitelman ja näyttötutkinnon perusteet 2005, 2). The focus of the assessment is on the student's command of working methods, tools and materials, their mastery of work processes and occupational safety, common curriculum emphases (e.g. use of technology and information technology and entrepreneurship), core competencies common to all study fields (e.g. problem-solving skills and interaction and communication skills), and the student's command of the knowledge that forms the foundation of work (Kinnunen 2003, 71). Acceptable performance in a skills demonstration earns the student a grade between 1 and 5. Grades 1–2 are equivalent to satisfactory, Grade 3 is good and Grades 4–5 excellent. (Valtioneuvoston asetus ammatillisesta koulutuksesta annetun asetuksen muuttamisesta 21 July 2005/603.)

As stipulated in the relevant legislation (Laki ammatillisesta koulutuksesta annetun lain muuttamisesta 15 July 2005/601; Valtioneuvoston asetus ammatillisesta koulutuksesta annetun asetuksen muuttamisesta 21 July 2005/603), a student must be able to acquaint themselves with the material on which their assessment, including the assessment of skills tests, will be based. The student must also be able to appeal against grades that they consider unjust. Moreover, the student must be given an opportunity to retake their studies or

vocational skills demonstrations if they fail to pass them or if they want to earn a higher grade. Furthermore, if the student has relevant skills acquired outside their current study programme, they must be able to obtain recognition for these skills. In addition, during their studies the student has the right to receive a transcript listing their completed studies and the vocational skills demonstrations they have taken. After finishing their education the student will be given a qualification certificate. (Laki ammatillisesta koulutuksesta annetun lain muuttamisesta 15 July 2005/601; Valtioneuvoston asetus ammatillisesta koulutuksesta annetun asetuksen muuttamisesta 21 July 2005/603.)

National test materials are being developed to help education providers in the planning, local-level implementation and assessment of skills tests. Test materials based on the national core curriculum will be prepared for all study modules of every vocational upper secondary training programme. The national test materials are intended to standardise student assessment and assessment methods and thus increase assessment transparency. Their development has been coordinated by the National Board of Education. The materials list the competencies that the student must demonstrate in a skills demonstration. The environment where the demonstration is to be carried out and the ways in which the student is to be enabled to display their skills are also described, as are assessment targets, criteria and methods. (Kansallinen ammattiosaamisen näyttöaineisto 2005.) Both the general targets and criteria and the assessment practices and documentation are across individual qualifications. This makes assessment more uniform and allows the production of comparable data. (Räkköläinen 2005, 30.)

2.8 Joint Assessment (the Tripartite Principle)

Among the important components of good assessment practice is that of observing the tripartite principle. Unlike in the past, when assessment was automatically equivalent to marking by teachers, today the concept of assessment has a wider meaning. In addition to teachers, the students themselves and representatives of the world of work are involved in the measurement of student achievement.

Effective communication between the three parties making up the triangle engaged in the practice-oriented assessment process – the student, the school and the workplace – contributes to the transparency of assessment. Students are not passive objects of an evaluation of their knowledge and skills; instead, they enter actively into the assessment process by appraising their own performance and reflecting on the contribution that particular learning experiences have made to their professional self-development. The involvement of workplace instructors guarantees that the assessment fosters and measures competence needed in the real world of work.

2.8.1 Examples of Joint Assessment (the Tripartite Principle)

ESTONIA. Both in Tallinn and Tartu Medical Schools, three parties are involved in the assessment of practical training – a teacher educator at the medical school, a workplace instructor, and the students themselves. The final grade for the training programme will be given at the medical school, where the students will defend their training report and other assessment documentation. Although assessment sheets designed in Tallinn and Tartu are differently structured, they all include an evaluation of the student by a hospital trainer, the student's self-assessment, and their assessment of the training place and the workplace trainers.

In order to ensure the standard of training and assessment, the two medical schools have stipulated that each student should have a personal trainer at the training hospital. Although, inevitably, in reality some proportion of training tends to be provided collectively, the student needs a support person who is there when they have problems and who is responsible for their training and assessment. At the medical school the student has another support person, a teacher educator. An educator working at the school is responsible for assisting students in setting goals for a training period and for keeping themselves informed about the students' progress throughout the training process. Before and during the training period, several seminars will be held in order to discuss the problems met. When such seminars are conducted at a training place instead of the school, hospital trainers have also been present.

All the parties involved have underlined the importance of communication between the points of the student, medical school and training place triangle. Tartu Medical School has very close contacts with their major training place, the Clinicum of Tartu University. Many nurses from the Clinicum work also as part-time teachers at the medical school. In Tartu, the goal is that at least when training takes place in Tartu, the three parties should come together to analyse the training period and discuss the assessment. While there are frequent contacts with Clinicum trainers, partly due to the fact that the Clinicum is situated next to the medical school building, communication with training places outside the town may be less frequent. In Tallinn so far, the medical school and the hospitals have communicated during the training period mainly by telephone, mostly in connection with problems. Four years ago medical school staff visited training places regularly, but then this was banned by hospital administrations. The present school year has seen teachers resuming their visits to training places. This is also in accordance with a regulation introduced by the accreditation committee, but the response has been very positive also among hospital staff.

FINLAND. Tripartite assessment by the student, the teacher and the workplace instructor is the most prominent principle guiding the implementation of vocational skills demonstrations in Finland (Suursalmi 2003, 9). During skills demonstrations all these parties have their own roles and responsibilities.

The students' most important task is to demonstrate their skills. The student also prepares a written demonstration plan. In addition, they assess their own skills on the basis of the relevant assessment criteria by filling in an assessment form. Furthermore, the student joins the teacher and the workplace instructor in the assessment discussion. (Opetushallituksen tarkistama näyttöaineisto, 5–6.)

The workplace instructor is given training for conducting skills tests or familiarises themselves with them in other ways. The instructor also guides the student through the process of preparing a written vocational skills demonstration plan, evaluates the plan's viability and approves it. During the on-the-job learning period the workplace instructor gives the student feedback to help them to better identify their learning needs. In the skills demonstration the workplace instructor evaluates the student in accordance with the relevant assessment criteria. The instructor participates also in the assessment discussion. (Opetushallituksen tarkistama näyttöaineisto, 5–6.)

The teacher is the expert on assessment; they must be familiar with the assessment criteria used. During the assessment discussion, which takes place after the student's demonstration of their vocational skills, the teacher's role often includes helping the workplace instructor to make their reasoning fit the assessment criteria (see also Vehviläinen 2004, 65). In addition, the teacher must see to it that all assessment targets included in the vocational skills demonstration are evaluated in an appropriate manner. (Opetushallituksen tarkistama näyttöaineisto, 7.)

It's definitely a good thing because because it's obviously the teacher who's the assessment expert there and definitely that's something needed there that there's someone who knows how to put it bring up what it means, in fact many workplace trainers say it out loud, oh help I've been lying awake all night and I cannot like say [it] I mean then when they describe [it] they expect that the teacher says what level it is so I mean definitely you are needed there. (Teacher.)

2.9 Multiplicity of Methods

In educational settings, especially in the area of vocational and interdisciplinary courses, a multiplicity of assessments can result in a more accurate picture of student achievement. By combining several observers and methods and several sets of empirical materials educators

and assessors can hope to overcome the weaknesses, inherent biases and problems that may beset single-method and single-observer assessment techniques.

Using a multiplicity of methods is a form of triangulation², and in practice-oriented assessment it may become an alternative to traditional vocabulary such as reliability and validity. When multiple threats to the validity of measures emerge, we should meet them by drawing on multiple sources of data that have been generated by multiple methods of analysis (Thomas, Lightcap & Rosencrantz 2004). If the different measures seem to lead to similar observations, more valid and reliable results have been achieved. Triangulating assessment modes should similarly improve the validity of assessment results.

Furthermore, vocationally related education has often been seeking ways to enhance the learner's competencies and vocational skills; however, in many contexts such as teacher education it has also sought to provide learners with experiences that encourage them to acquire transferable skills. The main aim of many interdisciplinary programmes is to generate integrative learning and impart transferable skills, learning that "... offers students opportunities to see connections as well as differences among disciplines" (Huber & Hutching 2003). Within these contexts performance-based assessment, coupled with observation, is traditionally the norm. Performance-based assessment is considered relevant because it mirrors the real-life application of skills and knowledge. It should not be assumed, however, that assessments of this kind measure complex thinking skills. Given this, evaluating complex thinking skills presupposes a systematic examination of the cognitive processes used by students to complete performance-based tasks (Baker, O'Neil & Linn 1993; Linn et al. 1991). We can thus help learners enter this field of complex thinking by bringing into play additional assessment methods such as reflection, learning logs and virtual diaries.

2.9.1 Examples of Multiplicity of Methods

ESTONIA. The assessment of the practical training of nursing students in Estonia involves an number of different parties and a range of different methods. In both Tallinn and Tartu Medical Schools, detailed assessment sheets have been elaborated that include student self-assessment, an assessment by the workplace instructor, and an assessment of the training place and the trainers there. In addition, after each training period students must write a report which forms an important part of the assessment process. The specific content of the report varies depending on each particular training period. However, as a rule there is an

² Triangulate (triangulation): the use, in a study, of a combination of several assessment methods; for example, an assessment that incorporates surveys, interviews, and observations.

analysis of the individual aims set for the training period and of how successfully they have been achieved. In addition, students must compose an account of nursing a selected patient or complete some similar tasks. The student must defend their written report and other documentation in a seminar held at the end of the training period. Due to the requirements of hospitals outside Estonia, special sheets have been introduced where students must record what nursing procedures they have performed and how many times. In Tallinn Medical School all documentation is gathered into a portfolio. The portfolio enables a student to analyse their professional self-development over their entire studying period. In Tartu, portfolios have quite recently been replaced by study-credit books serving the same function. The final assessment has three components: an evaluation by the trainer, a report written by the student with a patient story included, and a portfolio.

It has been argued that there is, inevitably, a subjective element in any assessment, especially if the workplace instructor contributing to it does not have much experience of student training and assessment. This problem has been tackled through mentor training organised by the medical schools. Subjectivity has been reduced also by the already mentioned fact that the final assessment includes, in addition to the grades given by the trainer, also reports and portfolios supplied by the students themselves.

As all practical training is graded we have tried to reduce the subjective element by an approach where the final mark consists of three grades – the mark given by the training place, the student report and the student portfolio. In this way the student has some say in the matter. Or is protected from getting a low grade through bad luck. I don't know ... let's say the training place has assessed them unfairly, graded them as "poor". (Teacher trainers, Tallinn Medical School.)

IRELAND. Throughout the Teaching Practice and Microteaching modules, which feature as examples towards good practice in the area of practice-oriented assessment in the School of Education Studies, students are offered a range of assessment techniques. These include:

- *Practical* assessment. This involves the student engaging in professional practice in an educational establishment of their own choosing, *observed* by visiting education and training experts from the University. The student and the teacher jointly reflect on and arrive at a consensus on the key elements of the teaching episode.
- *Continuous* assessment. This can take the form of a *project* or a *written paper* which is attempted throughout the learning period and is usually presented/submitted towards the end of the programme.
- Group and individual *presentations*. These facilitate peer assessment and support.

- *Portfolios* of work. These give students the opportunity to document their work on an ongoing basis.
- Reflective *journals*.
- A conventional, written, summative *examination* which takes place at the end of the learning programme.
- The use of a *virtual learning environment*. This provides another forum where the student's work can be observed and assessed.

Employing a multiplicity of methods fulfils a number of key functions for the school. It helps to ensure validity and academic rigour in the areas of performance assessment, competence-based assessment and authentic assessment. The approach meets the demands of the school's cohort of students, drawn from a wide range of educational experiences and backgrounds, and can accommodate the breadth of learning styles within that student body. The use of multiple methods prepares the student teachers for the range of work contexts they will eventually find themselves in. These contexts can feature learners who may not have found the formal system suitable or who ran foul of the system for a variety of reasons, and therefore the student teacher is gaining experience of a range of methods that they will employ in their working life. By offering a wide spectrum of assessment procedures the school is attempting to ensure equity in a critical part of the education process. This approach also assists in the development of the student's reflective practice, which is a core element of the programmes run by the school.

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3

Conclusions

Marja-Leena Stenström & Kati Laine

This report introduces a list of elements of good practices on the practice-oriented assessment within the QUAL-PRAXIS Leonardo da Vinci project. The list is not exhaustive but only indicative, since it is based on the participants' case studies of good practices rather than on a systematic survey of the systems of different countries. Furthermore, the elements are not necessarily mutually exclusive but they may be partly overlapping or interrelated. However, some common elements have been seen in the partner countries, although the targeted educational systems and the educational levels do vary.

Comparison across different assessment systems and the elements of their good practices is not an easy task. Education systems and educational cultures are an integral part of national history, social development, economy, culture, and prevailing values (Linnakylä & Välijärvi 2005, 53). Unique cultural features and the national characteristics of education systems often cause problems in terms of comparability. Therefore, comparisons between education systems often highlight the requirement of equivalence, which refers to sufficient correspondence to allow for comparison. Equivalence can be defined from various points of view as cultural, contextual, structural, functional, correlative, or genetic.

Cultural equivalence refers to sufficient similarity of the cultural features of education and teaching so as to allow for comparative evaluation. Contextual equivalence concerns such similarity for economic, social, and physical factors, respectively. Structural equivalence has to do with similarity of education systems and educational structures. Functional equivalence is necessary when making comparisons across countries with different curricular emphases in terms of goals, contents or methods, or where evaluation plays highly different roles. Correlative equivalence means that learning outcomes are similarly connected with various background factors. Genetic equivalence refers to a situation where certain inherent factors underlying learning, such as values, concept of

learning, pedagogical principles, and learning environments, are very similar. (Nowak 1977; Leimu 2004; Linnakylä & Välijärvi 2005, 55–60.)

In this study the comparison of good practices of practice-oriented assessment can be viewed from the perspective of structural equivalence. Structural equivalence refers in this case to the level of educational system, which can be divided into the categories of initial vocational education and training, applied higher education and higher education. The following table indicates the most important elements in practice-oriented assessment based on the case studies in the partner countries.

Table 3.1 Elements of the practice-oriented assessment in the partner countries based on case studies

Element of practice-oriented assessment	Initial VET	Applied higher education	Higher education
Assessment as a part of learning	Finland Germany	Austria	Ireland
Reflection	Finland	Austria Estonia	Ireland
Self-assessment	Finland Germany	Austria Estonia	
Feedback	Finland	Estonia	
Authentic context	Finland Germany	Austria Estonia	
Assessor/mentor training	Finland Germany	Estonia	
Joint assessment	Finland	Estonia	
Multiplicity of methods		Estonia	Ireland
Transparency	Finland	Estonia	

Table 3.1 only summarises which elements of good practices in practice-oriented assessment are the most relevant ones for the case studies of each country. As assessment models tend to be context-specific, a case that exemplifies a good practice in one context – country, sector, school or training place – may not be applicable to another context. The Finnish and German cases represent initial VET systems, the Austrian and Estonian cases applied higher education, and the Irish case higher education. The case studies deal mainly with the social and health care sector, except for the Irish case, which represents teacher education.

Table 3.1 shows that the elements of good practices vary between the cases/countries. It seems that the variety does not arise only from the different levels of education systems. As for the most common elements of good practices within the partner countries we can say that in a nutshell practice-oriented assessment is part of learning, which occurs in authentic contexts and requires learner's own activeness: self-assessment and reflection. The other elements of practice-oriented assessment such as assessor training, joint assessment, feedback, transparency and multiplicity of methods are more case- and country-specific features.

When comparing the cases according to the level of educational systems, there seem to be both similarities and differences between cases. Practice-oriented assessment in the Finnish and German cases in initial VET seems to highlight that assessment is part of learning that occurs in an authentic context. In addition, the common elements are self-assessment and assessor training. The Austrian and Estonian cases represent applied higher education. The shared elements for these cases comprise reflection, self-assessment and authentic context. These elements seem to be essential to both social and health care sectors in this level of education. In Irish case, corresponding typical features of practice-oriented assessment include that assessment is part of learning and involves multiple methods as well as reflection.

Compared to other countries, Finland and Estonia feature a greater number of highlighted elements, which may be connected to the facts that Finland used to have a predominantly school-based system, and work-based learning has only recently become part of education, and that Estonia has recently been developing their nurse education taking also account of the directives of the European Council (Ümarik & Loogma 2005). Hence, the Finnish and Estonian guidelines for practice-oriented assessment are well up-to-date and in line with current views of learning.

Furthermore, in Estonia and Finland the good practices of practice-oriented assessment seem to be fairly closely related to quality assurance. This may be partly explained by the fact that quality assurance has become a topical issue only recently, coinciding with the introduction of work-based learning into the national curricula. In Germany, for example, where work-based learning has long been part of VET, quality assurance does not have any central role in vocational education but rather in general education (Grollmann, Tutschner & Wittig 2005).

When interpreting good practices we should bear in mind that while different countries may have the same elements, the content-wise emphasis of these elements may differ. For example, in Finland the function of evaluation discussions in association with joint assessment is to guide the student and build confidence, whereas in Estonia such discussions more generally serve controlling purposes.

Practice-oriented assessment resembles authentic assessment practices. Linnakylä and Välijärvi (2005, 80–82) have outlined the features of authentic assessment as follows:

1. Knowledge production. In striving for authenticity preference is given to production of knowledge, with new associations and critical application, rather than to mere reproduction of what has been learnt.
2. Learner's own activeness. The student should have an active role also in assessment.
3. Explorative and practical approach to knowledge. Assessment items should enable an explorative, reflective and practical approach.
4. Relevance for the learner's life. Assessment must have also some other value than just documenting and controlling learning achievement.
5. Complex constructs of skills and knowledge. Assessment items do not relate strictly to the mastery of school subjects but to real competencies typical of daily life.
6. Appreciation for communality. In real life, problems cannot be solved on one's own but communality aspects should be typical of assessment as well.
7. Qualitative assessment based on the assessors' expert judgement. Appropriate solutions need to be evaluated with versatile quality criteria and with due interpretation and judgement.

Authentic assessment typically involves fairly extensive items, which relate to close-to-life situations and emphasise the learner's own knowledge construction. Such items call for planning, innovation, problem identification and solving as well as communicating and arguing for the solutions. Typical methods of this kind include work demonstrations, work samples and project works, various presentations and portfolios. (Linnakylä & Välijärvi 2005, 82.)

The elements of good practices of practice-oriented assessment can be compared to the practices of authentic assessment, which reveals a number of similarities although the terms are different (see Table 3.2).

In authentic assessment, information production means targeting at the production process and the product. Also in practice-oriented assessment the focus is both on the process and on the outcome. Both these assessment approaches highlight the learner's own activity, which can also be called self-assessment. Furthermore, both these assessment practices also emphasise an explorative and applied approach, i.e. reflectivity. Authentic assessment accentuates that assessment should be meaningful to the student. By the same token, practice-oriented assessment stresses that assessment should be seen holistically, as part of learning. Authentic assessment typically involves complex entities of skills and knowledge, while sharing with practice-oriented assessment the principle that assessment

Table 3.2 Features of authentic assessment practices and elements of good practices of practice-oriented assessment

Features of authentic assessment practices	Elements of good practices of practice-oriented assessment
Knowledge production	Practice-oriented learning: demonstration, examination
Learner's own activeness	Self-assessment
Explorative and practical approach	Reflection
Relevance for the learner's life	Assessment as part of learning process
Complex constructs of skills and knowledge	Authentic context
Appreciation for communality	Joint assessment (teacher, workplace instructor, student)
Qualitative assessment based on the assessors' expert judgement	Training for assessors

should take place in an authentic context. It is also important in both approaches that assessment is generalisable and reliable, which can be enhanced by assessor training.

Practice-oriented assessment can be examined in terms of good practices within the general framework of assessment paradigms. The paradigm of assessment thinking has shifted from measurement to judgmental assessment. Guba and Lincoln (1989, 21–49) divide the assessment paradigm into four generations. During the first generation the emphasis was on testing and measurement of performance, whereas the second generation highlighted objective-oriented assessment. The third generation focused on judgements and conclusions by assessors. The fourth generation of assessment started to evolve in the 1980s when the emphasis was on reciprocal production of feedback and evaluation information by equal parties involved in the process. This is founded on the constructivist view of learning. More recently there has been some discussion about the fifth generation of assessment, which is called realistic assessment (Pawson & Tilley 1997). Poikela (2004) places also context-based assessment into the fifth generation. The fifth generation of assessment accentuates contextuality, as the influential mechanisms depend on the current context of assessment. This model has traces of both the positivist and the constructivist assessment tradition (Räkköläinen 2005). Practice-oriented assessment can also be included into the fifth generation, since contextuality and authenticity are central aspects in this approach as well.

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This report introduces elements of good practices on the practice-oriented assessment within the Leonardo da Vinci project 'Quality Assurance and Practice-Oriented Assessment in VET'. The focus of the QUAL-PRAXIS project is to identify current innovations and future developments in practices of and approaches to the assessment of work-based learning in European countries. The findings in this report are based on the case studies of each partner country: Austria, Estonia, Finland, Germany, and Ireland. Some common elements have been seen in the partner countries, although the targeted educational systems and the educational levels do vary from secondary to higher education.

The elements of good practices of practice-oriented assessment can be divided into two categories: learning and quality assurance. The elements concerning learning are assessment as a part of learning, reflection, self-assessment and feedback. The elements of quality assurance include authentic context, training for assessors, transparent assessment, joint assessment and multiplicity of methods. The common elements established in the project are similar to the elements of authentic assessment.