Vocational Teachers´ Conceptions on Learning, Knowing and Self-assessment

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1. Introduction

Finnish vocational education has undergone remarkable changes over the last few years. The changes have been partly due to the changes in the laws concerning secondary vocational education which emphasize student evaluation and the development of students` self-assessment skills (*(L630/1998,* 25 §*)*.

The law referred to above changed significantly the work practice connected to vocational studies. The earlier work practice period had been carried out in various ways concerning its length – typically it had been 10 credits. Now it was changed into a 20- ECTS learning on-the-job -period which is objective-oriented, planned and evaluated.

According to the principles of the law, the Finnish National Board of Education designs the national core curricula to act as tools for education providers of vocational qualifications. The importance of assessment is emphasized:

" Evaluation must be based on student self-assessment and the evaluation discussion between the teacher and the student. During the on-the-job learning period the work place supervisors will participate in evaluation."

Thus the importance of student self-assessment is underlined in the national core curricula, too.

As the latest change in legislation, Law 601/2005 changed and complemented the earlier law (L630/1998) by adding a new element in the evaluation of vocational basic education – competence tests. (L601/2005.) It means that in vocational basic education the vocational skills must be demonstrated and evaluated also in practice, in the work place, educational unit or in some other place chosen by the education providers.

According to the law, the new national curricula have led to a new component for competence tests. The component emphasizes student self-assessment in the following way:

"Student self-assessment is an essential part in the evaluation of skills demonstrations. In the evaluation discussion each evaluator gives his/ her evaluation and reasons for it. This evaluation and the possible feedback from customers and members of the working community form the basis of the common conception of the student´s skills and competence." (Component of the national competence tests, 2006.)

Self-assessment is thus considered to be very important. It can be seen as a part of vocational knowledge and even an important part of it.

On-the-job learning and skills demonstrations aim at improving the quality of vocational basic education and harmonize student evaluation. Central evaluators are vocational teachers, whose capability to manage evaluation greatly influences the benefits of the on-the-job learning and skills demonstration tests.

The central themes of the present study are vocational competence and self-assessment. Since gaining competence is one of the themes, it also includes learning. Thus, learning strategies form the third theme. This study aims at explaining what kind of conceptions secondary vocational teachers and student teachers have of vocational competence, self-evaluation and learning strategies.

2. Vocational competence

The concept of vocational competence is not simple: it can be understood in different ways depending on the context and the definitions chosen. According to Räisänen (1998) the narrowest definition of competence or vocational skills is the formal qualification. Kankaanpää (1997) divides vocational competence into two areas, skills and capabilities

In general, vocational competence has been connected, for instance, to the following areas of competence: know-how, professional attitude and personality, collaborative skills and membership of society, evaluation and learning-to-learn skills, development and regeneration skills, and understanding the system of society. Lately, social skills such as communication, collaboration and teamwork skills have been emphasized. (Räisänen 1998.)

Kankaanpää (1997) divides the conception of vocational competence into the following areas: More specific definitions are the following:
- core skills → often needed
- marginal skills → seldom needed
- tacit skills → expert creativity
- concealed skills → secret skills, use of power
- implicit skills → voiceless and hidden skills
- key skills → acquiring new skills

According to Mäkinen (1993) knowing, vocational skills, qualifications and vocational competence are concepts which refer, broadly speaking, to the same thing. Knowing refers to the required skills and capabilities which the employee must be able to meet – as the minimum requirement for a successful or at least satisfactory performance in his work. This personal knowing is defined by work life. The concept of knowing refers thus to the contents of the work, on one hand, (demands of knowing), and to the qualities of the employee on the other hand (competence).

According to the Australian Vocational Education and Assessment Centre (VEAC), learning has been defined as using a certain level of knowledge and skills consistently to perform the given task in the way presumed. The evaluation criteria are chosen from among the industrial or competence-based norms developed and accepted nationally. They measure the competence of a person performing a certain work or task. The outcome of competence evaluation tells if the demonstrator is competent or non-competent. In the latter case the candidate has to study or train more, and can be later evaluated again.

International Labour Organization (ILO) has also dealt with competence, its significance and evaluation on its pages in the internet. According to ILO there are many varying definitions of competence. A generally accepted definition is that competence is an individual capability to successfully perform an act of work so that knowing and skills are recognized. Competence is thus not a probable success in performing a task; instead it is a real demonstration of capability.

According to a German definition, a person who has vocational competence has knowledge, skills and capability to perform a task or solve a vocational problem independently and flexibly, and he is also able to collaborate in his work environment and organization.

According to ILO the English National Council for Vocational Qualifications (NCVQ) does not recognize competence as conceptions hiding in standardized methods, but recognition is attained by the help of the following norms: knowing, evaluation of a performance, application of knowledge and the demanded knowledge base.

NCVQ defines five different levels for the following areas of knowing:

- independence of performance
- ability to change
- willingness to take responsibility
- ability to apply basic knowledge
- range of abilities and skills
- skill in guiding the others´ work
- adaptability to new work environments .

The levels of competence have been structured to begin from the analyses made for productive actions. Their aim is to create a framework of comparison which is wide and flexible enough to support possibilities to transform individual knowing into new work environments and tasks. The definition of the levels gathers the standardized structures of knowing together. Using them makes it possible to demonstrate advancement and ability to transform knowing.

Levels from 1 to 5 have been defined in the following way:

1. Competence consists of applying knowledge in performing different and changing actions of work. Most tasks are routine-like and easily anticipated.
2. Competence consists of applying knowledge in considerably various actions of work in different environments. Some of these tasks are divided into many parts, and performing them presupposes initiative to some extent. Often collaborative ability is also needed with the group or other members of the team.
3. Competence consists of comprehensive applications of knowledge in remarkably various actions of work. Most tasks are divided into many parts and are not routine performances. Carrying out the tasks demands remarkable independence and responsibility as well as the ability to guide and control the others.
4. Competence consists of comprehensive application of knowledge in technical or professional actions of work in widely varying environments of work. Performing the tasks demands substantial responsibility and independence. Responsibility for organizing the work of others is often included.
5. Competence consists of applying knowledge and performing fundamental tasks in varying and often unanticipated work environments. The tasks demand very notable independent management and also remarkable responsibility for the work of others. Organizing essential resources is also a notable part of the performance as well as the responsibility for analysing, planning, carrying out the tasks and evaluating the outcomes.

In relation to vocational knowing the concepts used are qualification, capability and competence. The employer defines the qualifications needed in the work, and the employee competence and qualifications should correspond to these demands of the employer. The qualifications of the employee are based on education or some other certified way to correspond to the requirements of the employer. Competence means knowing a thing, being capable of carrying out a job, even without formal qualification or certificate. United Kingdom Central Council (UKCC, 1999) defines competence in the following way, "Competence means skills and capabilities to carry out a job safely and effectively without direct supervision".

The definitions above seem narrow when thinking of an expert´s competence. An expert does not only react to the needs expressed by other people, but exerts influence on the definitions of work and competence with his/ her own competence.

Consequently, defining competence seems close to the definitions of expert knowledge.

Helakorpi (2005) understands vocational competence to be a permanent readiness to perform tasks. It comprises skills and presupposes training and knowledge. Hence, this view also presupposes that a vocational skill can be divided into smaller units. A vocation/ profession is not, however, necessarily the arithmetic sum of its factors. Dividing vocations/ professions into partial factors on the basis of analyses can also act as a tool for revealing the contents, planning and carrying out a task or developing learning and teaching a vocation/ profession.

Basic concepts of vocational knowing and skills, qualification and competence, can, according to Helakorpi (2005, 62), be understood in many ways. In the following figure 1 on the next page the relationship of qualifications and competence with work and employee qualities is described. According to Helakorpi (ibid.62) it is connected to understanding the change of the demands of work. Earlier a task was to be completed by one employee, but may today be considered so demanding that one employee cannot cover it. In the latter case the task can be individualized to correspond to the competence profile of the employee. It is connected to team work so that a team consisting of many people and many competences can meet the demands of a diverse task. This is how competence can also be understood as a collective conception which is made up synenergetically of the knowing of team members and which will be developed and renewed by reflective interaction to answer better and better the demands of the changing environment.

Helakorpi (ibid. 65) draws a parallel between qualification and vocational knowing and skills, and defines them according to a division made originally by ILO. It defines the qualifications in the following way:

- productive qualifications
- normative qualifications, and
- innovative qualifications.

Productive qualifications refer to the qualities which are necessary in a work process – i.e. in doing.

Normative qualifications are divided into the qualifications of adaptation, of motivation and of socio-culture. To the qualifications of adaptation belong adapting oneself into the work and working community, for example into working hours and methods. The qualifications of motivation are mental characteristics like initiative, adaptability to working community, willingness to serve, collaboration, etc. Their significance has greatly increased along with the increase of team organizations and customer-centred ways of action. Socio-cultural factors, again, are connected to the communication within and outside of the organization.
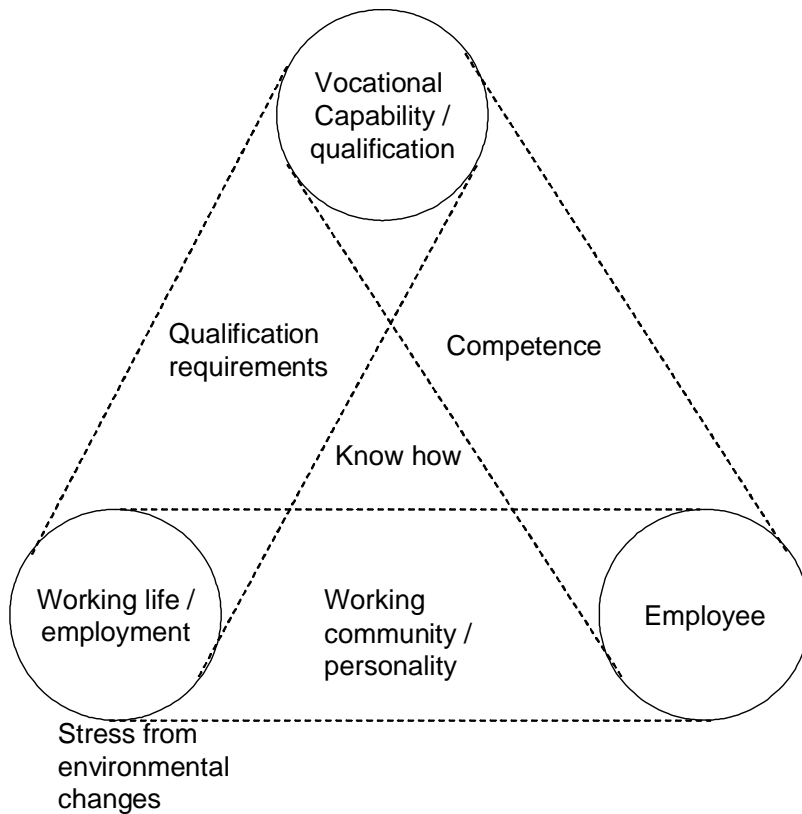
Figure 1. Vocational capability, qualification and competence.

Innovative qualifications are characteristics that make it possible for employees to develop work processes and to act in the best possible way in non-anticipated situations. The more last mentioned situations are increasing, the faster working life and work processes are changing and the more complicated systems people have to master. According to Helakorpi (2005, 65) the ability to learn is considered to belong to innovative readiness.

Helakorpi states further that earlier he has noted vocational competence to be divided into three components: psycho-cognitive, psycho-motoric and psychosocial areas (Helakorpi 2005, 65). Today, concerning vocational competence, the skills connected to the working community are emphasized more and more. Hence, the ethical abilities connected to continuing development and vocational competence can be described as divided into two parts: technical skills of vocation and the skills of teamwork and communication in the working community.

3. Self-assessment

Self-assessment is based on the human conception of humanistic psychology and the principle of autonomy, and its starting point is the trust in the individual or collective capability to solve their own problems (Räsänen 1995, 16). People in educational communities are active subjects of their actions, and self-assessment emphasizes this subjective aspect both as an individual and collective quality (student/ teacher/ community). This self-directing subject develops autonomously and regulates his/her development

3.1 The tasks of self-assessment

In developmental self-assessment the subjectivity of an individual is verified from two directions: he/she has to be able to act as both the evaluator and the one evaluated, at the same time. Self-assessment can thus be focussed on the action of the subject, on its aims and methods as well as the action of the whole community. (Räsänen 1995, 16.)

Self-assessment can also be carried out collectively. The starting point of self-assessment is an interest in the state of an object, and self-assessment should react sensitively and quickly to the changes in the action environment. Self-assessment can also be completed by external evaluation which makes self-assessment more objective.

According to Boud (1995, 11) all evaluation includes two basic elements notwithstanding the fact whether the evaluator is a teacher or a learner: knowledge and understanding should be evaluated in the light of any purposeful standards or criteria connected to the work. If the criteria or standards mentioned above are not known concerning the acceptable performance, it is impossible to say if a performance is adequate.

Secondly, another basic element in evaluation is the ability to evaluate if the performance is adequate compared to the criteria. According to Boud (1995, 11-12), the emphasis is unfortunately on this latter element. The importance of standards and criteria are underestimated to the disadvantage of learning. Independent of the fact if the evaluator is a teacher or a specialist at work, peer evaluator or learner, all evaluation work is connected to these two phases: *designing the criteria for evaluation and actual evaluation due to these criteria.*

Based on the previous statements, Boud (1995, 12) defines self-assessment: "Students recognize the standards and/ or criteria connected to their work, and on the given basis they can evaluate to which extent their work should correspond to the demands." This definition thus includes the earlier two phases mentioned by Boud (ibid.) – the criteria and the actual evaluation based on them. He regards, however, this definition as limited, since it may emphasize the performance of

evaluative action only – the skill of self-assessment. Self-assessment is yet much more than the evaluation of a learner´s own performance. It also includes the ability to evaluate what is good work in which situation.

Self-assessment is often connected only to an individual and his/ her learning, but it may equally concern an institution, organization or department and its capacity to perform. In the last-mentioned case, internal self-assessment often forms the basis for external evaluation. (Boud 1995, 8-9.) This is what increasingly happens in Finnish educational organizations. The payer – in this case society – is interested in the profit of its investments.

The most important tasks of self-assessment are to support both individual and collective learning, develop activities and evaluation. Successful self-assessment directs change and has thus a central role in change management and leadership as well as in the maintenance of developmental dynamics. It also collects data to support decisions and helps recognize the targets which need change. Self-assessment promotes social involvement towards active developmental efforts, strengthens togetherness and supports high motivation. (Räisänen 1995, 17).

3.2 The purpose of self-assessment: Why use self-assessment?

According to Boud (1995, 13-14) it is necessary to use self-assessment due to the following suppositions:

- Self-assessment is necessary in lifelong learning.

In a protected learning environment the learner may find it possible to pass the studies without the ability to plan and organize his/her learning, while in life – especially in work life – it is not possible to succeed without the given abilities.

- It is necessary to develop self-assessment in university courses.

Self-assessment in itself is not regarded as an academic ability, but, instead, a capability which is of great help especially on certain epistemic areas. The requirements concerning monitoring and performance are, however, different in different courses. The same is valid both in university studies and concerns vocational education as well. (Boud 1995, 14.)

- Self-assessment is necessary for efficient learning.

Efficient learning presupposes that the learners have an ability to monitor what they are doing and, respectively, to change their learning strategy when necessary. This capability of monitoring is included in the conception of metacognition.

Further, according to Boud (1995, 15) efficient learning presupposes pro-activity. It refers to the students´ ability to act independently and anticipate the next steps in

evaluating his/ her action. The people who continuously expect to have an incentive from the teacher, or a foreman in work life, to develop and evaluate his/ her knowledge or skills are badly limited.

A central aim of self-assessment can also be seen in the increase of self-knowledge via processing and reflecting on given feedback. It can also lead to finding one´s limits and limitations. (Keskinen 2003.)

Seen from the view of learning processes it is important that a student recognizes his/ her values, aims, interests, hopes, strengths and limits, as well as, his/her way to act in different situations and conditions. It is also necessary to recognize the possibilities and responsibilities in changing situations of life. Self-knowledge is influenced by experiences, feedback from other people and individual feelings as well as self-assessment. (Keskinen 2003.)

If self-assessment – although important in laws and national learning plans – is not officially observed in the practices of all vocational basic education institutes, we have to ask whether it is left for single teachers to decide and take into practice. At least they would need common discussion and guidance in it.
Self-assessment cannot, however, replace the teacher´s or some other authority´s evaluation. The following areas are central for the usage of self-assessment. (Boud 1995, 17-20.)

- Individual monitoring and the follow-up of progress are necessary.

  The areas above use free self-assessment traditionally. The students observe their learning to confirm that they are proceeding toward the aims chosen or that they attain the level of acceptable performance in a certain course.

- Self-assessment is a tool to promote good learning practices and learning to learn.

In some cases self-assessment is well suited to courses which emphasize learning to learn -skills. They are typically given at the beginning of studies to all beginning students with the purpose of preventing possible learning difficulties later.

- Self-assessment can act in diagnosing learning and defining the need of support.

Students with deficient self-assessment skills and depending on whether there is a lack of systematic practice, and have difficulties passing their exams, may need special study advice. In cases like this self-assessment can act as a tool for the students to find out the requirements of the course and the foci on which to concentrate on.

- Self-assessment can act as a substitute for other evaluation methods.

When self-assessment is used as part of normal evaluation, it is one of the rare occasions in which the result of self-assessment is given numerically or in some other way expressing the level of performance to serve normal evaluation. Self-evaluation together with teacher and peer evaluation can promote formal evaluation

- Self-assessment is used in improving vocational or academic practices.

Many different skills demand development and growth which can be added only through practice and repetition. Often organizations have no resources to observe and make sure that the growth and development follow the right course. Self-assessment combined with peer evaluation will solve this problem in many cases, for example in observing the clinical skills necessary in medical environments.

More generally, self-assessment and peer evaluation are adaptable in many vocational practices, especially when reflective skills are concerned. When reflecting on one´s practices and performances critically a person can find a proper starting point to planning necessary changes, still keeping in mind their consequences.

- Self-assessment is needed in integrating the contents of various thematic areas.

When studies become fragmentary due to different study modules and their independent evaluation, as well as, to different ways of carrying out the courses, a student can use self-assessment as a tool to make a better overview of his/ her studies. In the USA the so called capstone seminars have been increased at the final stage of studies. In them students can integrate their learning by writing comprehensive self-evaluative essays which link the courses together. (Waluconis, 1993.)

- Observing earlier performances for further studies is based on self-assessment.

Students apply for further education on the basis of earlier performances. Increasingly, they design a portfolio to demonstrate their earlier learning. The portfolio is evaluated and compared to the qualifications required. When compiling a portfolio, self-assessment has a central position.

- Self-assessment increases self knowledge and self-understanding.

By reflecting on learning, a student attains a realistic conception of his/her learning and him/ herself. In these situations self-assessment is emancipatory –liberating. It promotes personal growth, because it adds to self-knowledge and self-nderstanding.

This is how self-assessment has a much wider significance than was supposed in the beginning. Self-assessment has actually as important a role as planning the studies and questioning the prevailing learning practices or observing earlier learning or understanding it.

3.3 Why is self-assessment interesting?

According to Boud (1995, 20) it is interesting to speculate on why self-assessment is nowadays accepted rather widely, while in the 1980´s it was not often used. This can be answered in many ways, and self-assessment is only one of many new features in upper level learning and teaching. On the macro level of education trends often appear of which individual teachers and students are not even aware. These factors are complicated and sometimes contradictory. However, when arguments that arise from contradictory ideologies lead to similar practices, it is evident that there is a trend.

The following passages introduce a few macro-level factors:

1)   *Individualism and marketing forces´* arrival in teaching.
2)   *Democratic tendencies* in organizations.
3)   *Organizations have become flatter.* In these organizations, responsibilities also move lower. Consequently, people who are lower in the organization must be able to deal with these responsibilities.
4)   *Resources have decreased* which leads to the need of action strategies minimizing the time and other resource demands of the staff.
5)   *Students are better equipped to take responsibility* for their learning, e.g. in different projects, the levels of performances and different optional studies are defined by students themselves.
6)   *Transition from traditional authoritarian teaching and learning plans* which regard expertise as the most important criterion to define competence, *towards competence or problem based learning* which regard the solution of a problem or explaining the explicit evaluation criterion as proof of learning.

Although the influence of macro-level factors presented above is normally invisible in everyday practical decisions, they influence in all of the environments of actions and on their ability to innovate. Interestingly enough, self-assessment attracts the actors who would allow student flexibility in learning and course choices more than the ones who regard `systematic teaching as the monopoly of philosophy´

The micro-level of teaching has undergone other changes:

1)   *A widening and more versatile crowd of students* is coming to higher education. Their performances cannot any longer be evaluated reliably on the basis of context bound, general evaluation skills.

2)   A trend of offering courses that do not cover the traditional fields of science – co-exams, module structures and increasing expectations – means that *different students choose different paths.*

3)   The increasing sizes of classes have lead to the *decrease of expected performances* and, in general, the *decrease of feedback* to students at the beginning of studies. Students have less and less opportunities to talk about study affairs with the staff members and to get guiding feedback which might be of utmost importance. Independent of the fact how self-assessment skills were   gained earlier, it is, however, evident that nowadays the increased work pressure   of the staff does not make it possible to give individual feedback to students to the   necessary extent in order to promote their learning to learn.

Would it not be possible to acquire self-assessment skills in connection with normal evaluation processes? Boud (1995,21) answers `yes´ - to a certain extent. This is not, however, efficient, due to the present evaluation methods and the scarce feedback connected with them. The piece to be evaluated too often appears in an artificial context and is thus unknown to the student. Moreover, the targets of evaluation are often fragmentary. The criteria of evaluation are not always clear to the student. It is no wonder that the purpose of evaluation is not clear to the student! How in this situation can he/she conceptualise what will be expected in the future?

The student can also ponder what a grade or credit will mean. He/she understands if it is good or bad, but has no understanding of how to improve performance the next time. And what does good or pass mean in a certain situation? The students do not often get satisfactory answers to their questions. After the course they have grades, but no answers to the questions troubling them. It is not customary to go back and explain how learning succeeded and what should be done still.

According to Boud (1995, 22) evaluation is being made more and more explicit all the time, tasks are given well ahead of due dates, and the feedback to the students is being developed. They have, however, only little connection with evaluation skills and their development. If we consider self-evaluation important, we have to support the skills needed for it. In order to develop the right skills we should think of what evaluation and learning are formulated from and how self-evaluation is connected to them.

4. Context of study, data gathering and research methods

The data was gathered using a quantitative approach. The target group was the teachers working in the Oulu Region Vocational Institute and the student teachers who started their studies in the School of Vocational Teacher Education (N=546).

The questions, based on the theoretical background, were designed from the three essential themes, vocational competence and self-assessment. As one of the themes

concerns knowing, which is always connected with learning, learning strategies were chosen as the third theme. The inquiry was carried out in 2007.

There were eight questions concerning vocational competences, twelve concerning self-assessment and 48 concerning learning strategies. There were three open-ended questions about teaching experiences elsewhere than in the present vocational institute, about the personal conception of vocational competence and what are the essential skills connected with vocational competence. In addition, four questions concerned the conceptions of the informants about the usefulness of vocational studies. The alternative answers were given on the Likert scale. Thus there were 74 questions altogether. In addition, the questionnaire also included independent variables concerning sex, age, teaching and other work experience.

The answers were analysed with the SPSS statistical program. This is how the 68 statements concerning learning strategies, vocational competence and self-assessment were made more concise. The 48 statements of the learning strategy part were condensed into seven factors, the eight statements of vocational learning were condensed into two factors, and the 12 statements of the self-assessment part into three factors.

5. Results

In the following, results will be given only concerning vocational competence and self-assessment. These results are preliminary.

Factors concerning vocational competences:

AF1.   Skill to carry out the evaluation of vocational competence

AF2.   Skill to understand the concept of vocational competence

Factors concerning self-assessment:

IF1.   Significance of self-assessment in enhancing one´s own responsibility for learning

IF2.   Significance of self-assessment in monitoring one´s own progress, and

IF3.   Awareness of the essential idea of self-assessment

5.1 Vocational competence

- Males consider that they are well prepared for carrying out vocational evaluation. Their estimation of themselves appears better than that of females, statistically significantly.
- Females have a clear understanding of what the concept of vocational competence means. Females´ conception of the issue is clearer than that of the males, statistically very significantly.
- Age seems to create assurance in carrying out the evaluation of vocational competences statistically very significantly.
- Instead, age does not help clarify what vocational competence actually is
- The more experiences you have of teaching, the stronger your opinion is of your ability to carry out the evaluation of vocational competences. The result is statistically very significant.
- Understanding the concept of vocational competence is not influenced by the age factor statistically.
- Other work experience than teaching has no influence on carrying out the evaluation of vocational competences or understanding the concept.
- The more work experience you have of teaching at the vocational secondary level, the more clarified is your trust in your ability to carry out the evaluation of vocational competences. The result is statistically very significant.
- The length of your experience of teaching at the secondary level does not influence your understanding the concept of vocational competence
- The amount of experiences of teaching in traditional universities or universities of applied sciences has no statistically significant connection with the conceptions of the ability to carry out the evaluation of vocational competences or how the concept itself is understood.

5.2 Self-assessment

- Females think more often than males that self-assessment has an essential role in taking responsibility for one´s own learning. The difference is statistically very significant.
- Females think more often than males that self-assessment has an influence on the student´s monitoring of his/her progress. The difference is statistically significant.
- Females are also more often than males of the opinion that self-assessment has an influence on the choice of appropriate working methods. The difference is statistically significant.
- The age of the informants has no connection with their conception of the influence of self-assessment on individual learning (IF1), no statistical significance (7,4%).

- The more aged informants are more often than the younger ones of the opinion that self-assessment has an effect on the student´s monitoring of his/her progress (IF2), statistically almost significantly (4,4%).
- Younger informants, more often than the older, are of the opinion that self-assessment has an effect on the choice of appropriate working methods (IF3). The difference is statistically almost significant (3,0%).
- The amount of teaching experience seems neither to have an effect on the informants´ opinion of the importance of self-assessment in responsibility for one´s learning (IF1) and for the monitoring of one´s learning (IF2), nor on the choice of appropriate working methods (IF3).
- Other work experience than that gained from teaching has, according to the informants, no influence on their opinions of the importance of self-assessment in taking responsibility for one´s learning (IF1) and in choosing appropriate working methods (IF3).
- Instead, the informants with long experience in teaching are more often than less experienced teachers of the opinion that self-assessment influences the student´s monitoring of his/ her progress, almost significantly (3,4%).
- The amount of teaching experience of secondary vocational education is not statistically significant in relation to the informants´ opinions of the importance of self-assessment in taking responsibility for their learning (IF1) and monitoring their learning (IF2), neither has it significance in choosing appropriate methods (IF3).
- The informants with teaching experience in higher education are more often than those with secondary vocational experience of the opinion that self-assessment has an essential effect on taking responsibility for one´s learning (IF1), almost significantly (1,3%).
- Instead, the same informants with higher education teaching experience do not see any effects of self-assessment on monitoring one´s progress (IF2) or choosing appropriate working methods (IF3).

6. Discussion

The data collected by the study has only begun now, The results stated above arepreliminary and a small part of the final results. They are taken directly from single independent variables – they will need grouping and cross-tabulating. Thus, significant conclusions cannot be introduced at this time

Vocational competence seems to be better understood as a *concept* among females than males, but, on the other hand, males have a better conception of themselves as the performers of the tasks demanding vocational competence.

Age and the length of teaching experience seem to give self-assurance in performing tasks demanding vocational competence, but they do not seem to have

influence on understanding the concept of vocational competence. The same results will be repeated, if the target group of informants is limited to the teachers of the secondary level. It is of course natural, because the evaluation of vocational competence and knowledge is carried out at the secondary level in the same sense as has been done in the present research. Correspondingly, the length of teaching experience does not have any influence on vocational competence according to the informants who teach in the university of applied sciences or traditional university – these institutions, however, do not evaluate vocational competence from the same starting points as was done in this research

Self-evaluation has influence, according to *females more often than males*, on taking responsibility for learning and monitoring one`s progress. The employees in the traditional and applied sciences universities share this conception.

Females, again, more often than males seem to know what self-assessment actually is.

Instead, the *age of informants and length of their teaching experience,* whether males or females, do not seem to be significant concerning the influence of self-assessment on taking responsibility for one´s learning.

More *aged informants* were more often than the younger ones of the opinion that self-assessment has influence on monitoring one´s learning and progress. *Younger informants*, again, more often than the aged ones think that self-assessment has influence on choosing the right work methods.

The amount of *work experience* does not seem to influence the informants´ conceptions of the significance of self-assessment in monitoring one´s progress and choosing the right work methods.

The *informants working in universities of applied sciences and traditional universities* do not think that self-assessment should have any influence on monitoring one´s studies or choosing the right work methods.

The results to be gained will be used in vocational teacher education and in vocational teachers´ further education.

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