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Viewing the quality of pedagogical and andragogical studies from the point of view of changing students conceptions

Abstract: By the time students enter university they have accumulated considerable learning experience and formed more or less coherent, subjective and implicit theories of learning, knowledge and teaching. The question is whether university teachers, through their influence and the challenges they provide, manage to make students aware of these theories and help them develop conceptions based on the idea of active and constructive learning, and thus grow into independent learners who can manage their own learning. This is a basis for their further professional development and one of the criteria for evaluating the quality of university studies. However, by studying this issue university teachers hold a mirror up to their own work since they themselves are one of the main factors of changing students' conceptions. The present research aimed at finding out whether students' conceptions of knowledge and the teacher/student role change at all. We were further interested in the key factors that students see as contributing to this change. What role is played in this process by their teachers or their studies in general?

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1   Introduction

The first question we have to answer is what is meant by quality education. Quality in its absolute sense can be considered as the achievement of a certain ideal; nevertheless if we take into account all the variety and changeability of needs of everyone involved in the educational process and if we want our education institutions to become adaptable complex systems constantly taking care of their own development and improvements (according to Sahlberg, 1998), this conception does not hold up. Therefore, we are going to perceive quality as something relative, as a matter of consent. Nightingale and O'Neil (1994) present five general perspectives suitable for viewing quality, yet each of them hides particular assumptions, expectations and judgements, and consequently also opens up questions and dilemmas in the background.

1.   *Quality equals high standards.*
First there is the question of whose standards should be considered, as significant differences appear between the expectations of students, teachers, the head staff of education institutions, various boards... More and more often the standard of international comparability is pointed out. The question is whether a variety is sought at all, whether each institution should set its own standards according to its mission and goals or whether it is possible, for example, within the higher education framework, to follow an overriding general goal such as fostering higher order intellectual capacities. Another problem is course of action taken in cases where initial conditions are far from being equal. The biggest problem lies in the fact that setting standards does not yet lead to improvements.

2.   *Quality as consistency.*
If we conceive an idea that the quality of education lies in the encouragement and forming of higher order intellectual capacities, this quality can be evaluated according to results and the educational process itself. If a focus on results is

taken we can ask ourselves how students show their ability to think independently and critically and to express themselves clearly while being independent. Students may fail to do this for a variety of reasons and not only because of the programme or its implementation; so quality cannot be assessed on the basis of results only. We must evaluate the process itself: do we offer students enough intellectual challenges which will help them to develop into autonomous, critical and reflective individuals. This conception of quality is therefore more of help to us than the first one, but we have to reach an agreement about the characteristics defining a quality higher education.

3. *Quality as fitness for purpose.*

Authors warn that an ideology may be hidden behind the purpose. Education institutions may be summoned to define their mission and the main purpose themselves, but some purposes are valued higher than others. In solving this problem we can go to the other extreme and consider all education institutions as equal, but different, and for this reason we cannot make any comparisons regarding quality. Can we find a common main purpose valid for a particular type and level of education institution, shared by all of them? Nightingale and O'Neil (1994) state that, regardless of all the variety in higher education, everybody may share the main overriding purpose which should consist of fostering higher order intellectual capacities. To conclude, these capacities enable independent and critical thinking while at the same time developing personal and social qualities.

4. *Quality as value for money.*

According to this concept there are demands to collect ever new data: for example on the ratio between teachers and the number of students, on dropouts, on the equipment available… But it should be remembered that mere knowledge of deviations in the data still will not have brought about any changes. A danger also lies in the fact that we are preoccupied with collecting these data instead of working to achieve conditions ensuring quality learning.

5. *Quality as transformative.*

An educational process should result in a certain transformation of students. This also includes a transition in the paradigm from a student without responsibility to a student with responsibility which calls for a new vision in a teacher who should encourage students and in a student who should be an active and committed participant in the learning process.

In the present study we lean to the highest possible extent on the last mentioned perspective of assessing quality, although we can also identify ourselves with the overriding purpose as set out by Nightingale and O'Neil (1994). The authors point out that we have to maintain a focus on creating conditions leading to quality learning as this assures the highest degree of quality education. Considering students as partners in the learning process enables us to maintain this focus to the maximum extent.

Student participation in quality assurance has become widely recognised in the European Higher Education Area. At their meeting in 2001 in Prague the ministers declared that students are important stakeholders on all levels and reaffirmed the importance of student participation in the 'European standards and guidelines on quality assurance'. However, the reasons for student participation in quality assurance, the ways of students' involvement and on which levels they should participate has not been fully understood yet by all actors in all countries (Brus et al., 2007, p. 53). The possible contribution to quality by students is often forgotten and neglected.

We would like to stress the importance of students' role in developing the academic community, the culture of learning, in co-operation with other members of university staff. In order to create and support a culture of participation in all aspects of university life, however, a continuous effort needs to be made to integrate new members, especially students. One of the most important goals of universities is to enhance students' learning. To reach this goal it is essential that students actively participate in every step of the development process (Alaniska and Eriksson 2006, p. 12). Students' involvement should be understood as full participation. This close involvement generates an authentic partnership and therefore more open dialogue (ibid). The perceived importance of students' role in quality assurance is based on the students' respected position in the overall academic community. In Finland, for instance, it is emphasised that the university is a scientific community, not a school (Alaniska and Eriksson 2006, p. 12). Students are seen more as novice members in the academy than pupils taking classes; they are more partners than customers. Both staff and students are knowledge-seekers; the only difference between them is the different levels of their experience (ibid).

Alaniska and Eriksson (2006, pp. 14-15) present students' roles in four categories.

1.   The student as an information provider

Giving feedback is the most common way students participate in quality assurance. There is a wide diversity of how, when and what kind of feedback students give. It is typical that feedback is given after each course or at least once in a term. Both quantitative and qualitative procedures should be used.

2.   The student as an actor

Students design their own feedback questionnaires or do so in close co-operation with the academic staff. Feedback is also often collected and analysed by students. They organise staff and student development workshops, where innovative and problem-solving oriented discussions are encouraged in a comfortable atmosphere.

3.   The student as an expert

Students must be generally regarded as experts in learning. They know how they have achieved their learning outcomes and how the teaching has assi-

sted them in this process. Thus teaching should be evaluated through students' learning experiences and based on how it actually assists the learning process. Treating students as experts is now a cultural expectation which demands a positive attitude from both the staff and the students.

4. *The student as a partner*

Learning is achieved through close co-operation between teachers and students. The development of the concept of partnership, in relation to students' involvement in quality assurance, can therefore be seen as a natural consequence. The notion of a partnership between students and staff members represents the possibility of an authentic and constructive dialogue which offers the opportunity for more reflective feedback. It is the responsibility of staff to treat students as partners and to create an easy-going and positive atmosphere in the institutions.

According to Harvey (2007, p. 84) '…quality culture is about adopting a self-critical reflective approach as a community: a community of students and staff. Quality processes, internally and externally, if they are improvement-oriented, should provide a framework for the effective operation of communicative learning environment.'

A clear purpose of this study is to listen to the voice of students and to find out if, during their studies, they start assuming a more active role by becoming increasingly independent learners, taking on a role of an expert and partner in accordance with the concept of Alaniska and Eriksson (2006). Certainly a question here is whether we teachers are ready to accept students as experts and partners.

1.1 *Conceptions of knowledge, teaching and teacher/student roles*

All students entering university have had years of experience in education and their mental models – more or less coherent systems of conceptions about knowledge and learning, themselves as students, learning goals and tasks, the roles and responsibilities of participants in the teaching/learning process – have already been formed (Vermunt, 1993). With these mental models and learning orientations – personal goals, motives, expectations, doubts… – they enter various learning situations and then interpret them accordingly. These interpretations and the students' repertoire of learning strategies determine how the students will use various learning strategies and act in a certain situation, which in turn determines the quality of their learning process and resulting knowledge. The teacher's assessment criteria and the students' self-evaluation of learning effectiveness have a reverse effect on the students' mental models of learning and learning orientations. We are therefore interested in the messages we as teachers send to our students and the effect they have on their existing conceptions of knowledge, teacher and student roles and, indirectly, on the quality of the learning process and the resulting knowledge (Biggs, 1999).

The study is grounded in modern cognitive-constructivist notions of knowledge, learning and teaching, which stress the dynamic nature of knowledge and its

constant construction and reconstruction. *Constructive learning* thus refers to the active (re)construction of knowledge; it is an attempt at building richer and more complex memory representations. Vermunt (1993) stressed the importance of the student's own activity; in constructive learning, the learner actively constructs their own knowledge through a deep approach to learning and self-regulated learning activity. We need to transcend the traditional conception of knowledge in the sense of final truths that can be accumulated and transmitted to others. Simons (1997) in his meta-study of papers on constructive learning listed six key features of constructive learning on which there is a high degree of consonance between different authors. Constructive learning is:

1. *an active process*: the learner's mental activity is crucial for him/her to arrive at certain meanings;
2. *a constructive process*: in a narrow sense this means the connecting of a new piece of information with others in order to understand more easily both that particular information and the entire complexity of the subject matter;
3. *a cumulative process*: in each new learning cycle we depart from previous knowledge and build on it;
4. *a goal-oriented process*: learning will be successful if the learner is aware of at least some general goals he/she wants to achieve and has appropriate expectations concerning the achievement of learning results;
5. *diagnostic*: the learner keeps track of his/her learning and results; and
6. *reflective*: rethinking the whole learning process.

Of course, we cannot expect students to always be engaging in the same quality and quantity of mental activity. Sometimes their previous knowledge is quite limited and students need to focus on detail and certain processes. There is also nothing wrong with occasionally following the learning process without a specific learning goal in sight and it is also impossible to constantly monitor and reflect on one's own learning. However, it is important that these processes occur in students' learning and that teachers understand their significance for the successful introduction of constructive learning and learner training with their students.

1.2 The quality of learning and teaching

All of these characteristics of constructive learning can have a certain indicative role when we consider the quality of our own learning or teaching (depending on the role we play) and plan our next steps which should lead us to quality results – deeper insights into particular phenomena, a comprehension of their interdependence, the ability of critical judgment... and ultimately to a student who has mastered specific knowledge and competencies (the image of a graduate). Again and again we must ask ourselves what kind of knowledge and competencies have been achieved by our students. Research has shown that students at a higher education level often do not make any qualitative progress in their conceptions of essential phenomena in the area of their studies (Dahlgren 1978, Brumby 1979, Johansson et al. 1983, op. cit. Dahlgren 1984; Gardner 1991;

Gibbs 1992, op. cit. Nightingale and O'Neil 1994). Questions which we put to students are mainly quantitative and only rarely reach beyond the matter which can be memorised in an unreflected manner. Students acquire surface characteristics of core phenomena and the matching expert terminology which often hides their misunderstanding of phenomena, while they never achieve a deeper understanding of these phenomena. In the present research we ask ourselves, among others, what are students' conceptions of knowledge, teacher and student roles – essential conceptions in the expert area of their studies. On the other side, we ask whether we are creating the conditions which will lead students to higher quality learning and to acquiring high quality knowledge.

Nightingale and O'Neil (1994) stressed that high quality learning will emerge in the following cases:

1. When a student *is ready (cognitively and emotionally) to face learning tasks*: it is necessary to obtain a proper degree of imbalance between demands and capabilities, between the difficulty of teaching contents and previous knowledge, so that students are prepared to accept a certain learning task as a challenge.

2. When a student *has reasons for learning*: students naturally perceive the reasons for learning and achieving good marks and passing exams so it is very important to plan an evaluation which will encourage them for high quality learning (when it is not memorising which is primarily expected from them, but rather higher levels of knowledge). Yet the motivation should not be only external, but also internal – a need to explain and find reasons for particular phenomena, to develop certain skills, which in turn enable our better performance and participation. To achieve this we must build on students' previous experience and ask them to apply them in new learning tasks, to find the core problem by themselves as well as its applicability, to let the new knowledge become relevant for them personally.

3. When a student will *clearly link the previous knowledge with the new knowledge***:** the authors specifically state that they do not support the assumption that »students must first get certain basic knowledge and then…« They rely on Gibbs (1992) who maintained that without existing conceptions it is impossible to make new conceptions meaningful; therefore it is essential to include the existing knowledge and experience in the learning process. He also stressed the importance of well-structured and organised knowledge, for which the active linking process of students is important.

4. When a student becomes *active* during the learning process: it is reasonable to assume that nobody can be completely passive during learning yet there are considerable differences in the activities of students. On one hand, there are activities like taking dictation, the detailed learning of explanations from notes, definitions of formulae and their reproduction; on the other hand there are activities demonstrating a student's involvement in the learning process: problem-solving, searching for important data with the aim of obtaining particular answers, group work…

5. When the *environment will offer the student suitable support*: the authors maintain that by this we first think of support programmes to develop par-

ticular learning skills and strategies as well as various counselling methods. But we should also bear in mind how to achieve better flexibility by means of more open learning and by planning possibilities for co-operative learning. The general climate in the whole of society is important as it is not stimulative for students if they are constantly related to as illiterate or incompetent or if they are told that what is taught at school is merely a theory.

2   Aim of the study

The main goal of the present study was to ascertain how students of pedagogy and andragogy at the Faculty of Arts of the University of Ljubljana interpret the various messages and demands of their university teachers and whether four years of undergraduate studies bring about any changes in the students' conceptions of knowledge and teacher/student roles. We were especially interested in those factors which, in the students' opinions, had an influence on changing their conceptions. The paper presents the answers of our study of the following research questions:

1.   What conceptions of knowledge and teacher/student roles do students of pedagogy and andragogy possess? Are there differences between the 1st and 4th year students in this respect?
2.   Do the second-year and pre-graduation students feel that their conceptions have changed through the years of their schooling? If not, why not? If they have, what were the changes? Are they able to articulate and explain these changes?
3.   How complex are the students' explanations of the changes in their conceptions?
4.   What, in the students' opinion, are the key factors that led to them changing their conceptions of knowledge and teacher/student roles?
5.   What is the second-year and pre-graduation students' perception of the pedagogical and andragogical studies?

3   Method

The research was carried out in two phases: we completed the questionnaires in May 2006 and proceeded with the interviews in March 2007. The questionnaires were presented to 74 students of pedagogy and andragogy at the Faculty of Arts in Ljubljana; half of them being in their first year and the other half in their fourth year of studies. The participating students mainly attend classes frequently, half of them are fairly satisfied with their studies and 34% are neither satisfied nor dissatisfied; their average exam grade is 7.7 (in our assessment system the highest grade is 10 while the lowest passing grade is 6).

The questionnaire included multiple-choice items, scales, open-ended questions and unfinished sentences. Based on the students' answers to the open

questions we formed preliminary categories. We then compared the groupings with the theoretical concepts and, for some items, with the classifications validated in previous research. This formed the basis of our categories. The data were processed with the help of the SPSS for Windows in which we used a range of statistical procedures.

The aim of the interviews was to deepen our insight into the question of whether the students' conceptions of knowledge and teacher and student roles have changed and whether students are able to articulate and explain these changes. For this purpose we made a random choice of six second-year students and six pre-graduation students.

4   Results and discussion

4.1   Conceptions of knowledge, teacher and student roles as revealed by the results of the questionnaires[1]

Our primary inquiry aimed at revealing the students' conceptions of knowledge, which we inferred from their answers to the question *»What, in your opinion, is the gist of knowledge?«*.

The students' conceptions were divided into the following four categories, listed from lower to higher order, whereby the higher-order conceptions still contain elements of lower-order conceptions.

1.   *Quantity and durability of knowledge* (17.6% of responses)
      In this category we included very general responses in which students mostly stressed that learning means retention, not forgetting something right after the exam is over.
2.   *Use* (27%)
      Within this category students mostly stressed the practical applicability of knowledge.
3.   *Understanding* (39.2%)
      This category includes responses by those students who stressed the importance of understanding learning matter.
4.   *Seeing things differently* (16.2%)
      This category of conceptions clustered around the idea of a shift of perspective, of viewing a phenomenon from different angles and critically evaluating one's knowledge. These changed views can, of course, also lead to the development of personality – to greater independence and competence, but only two students mentioned this.

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[1] See the detailed presentation in:
– Šteh, B., Kalin, J. (2006). The messages university teachers send to students about knowledge and teacher/student roles. The report presented at the European Conference on Education Research in Geneva, Switzerland, September 2006;
– Kalin, J., Šteh, B. (2007). Changes in the conceptions of knowledge, teacher and student roles during studies – between vision and reality. Sodobna pedagogika, 58, no. 1, pp. 10-28.

The results show that only half the students (55.4%) have higher-order conceptions of knowledge, with only a small percentage talking about shifting perspectives, knowledge construction and the development of personality.

Besides that, 35% of the students have *no real control of their own learning*, 28.4% of them rely on the quantity of studying they have done, and only 36.5% on understanding. We can conclude that most students cannot regulate their own learning and rely on surface strategies such as the amount of time spent studying (Vermunt, 1993). Simons (1997) would say that most students do not learn actively and constructively as monitoring of and reflections on one's own learning process are two of the key features of constructive learning.

A further aim of our study was to see if there are differences in student conceptions of knowledge between the different years of study, i. e. whether these conceptions change during the four years of study, but there were no statistically significant differences between the responses of the 1st- and 4th-year students. It is true, however, that there is such a relationship between the year of studies and exam readiness ($2\hat{I}^2$ (3, N = 74) = 7.94, p = .047): in the 4th year there are fewer students who do not know if they are ready to take an exam (2.7%) as compared to 13.5% in the 1st year. In the 4th year there is also a somewhat higher percentage of students who rely on their feelings and quantity of studying to judge how ready they are (20.3% as compared to 17.6% in the 1st year) and more students who judge their readiness by understanding (23%:13.5%). These differences, however, are not big and we wonder whether they imply that teachers do not send the students enough messages about the importance of understanding the subject matter or that these messages do not interact with their existing conceptions of knowledge and learning and thus have no effect on their learning. It is likely that teachers invest too little effort in developing various learning strategies and helping students to become independent learners. Related to this, of course, is the question of how teachers conceive their own roles – is developing students into self-regulated learners one of a teacher's tasks at all?

In categorising responses about the role of the teacher we used a classification of conceptions developed by Fox (1983) specifically for teachers in higher education. This classification is more detailed than the two types of teaching styles distinguished by Kember and Gow (1994): the transmission of knowledge and encouraging learning. However, the students' conceptions were quite undifferentiated – only a few exhibited higher-level conceptions by saying that the teacher plays a role in encouraging a student's personal growth. The students' responses to the question about the role of the teacher were thus divided into the following three categories, listed hierarchically:

1. *Transmission of knowledge and subject mastery* (39.2%)
   Within this category, students stress that the teacher has to be a skilled lecturer, to provide clear and engaging explanations, be systematic and exhibit mastery of his/her subject.
2. *Shaping the students* (37.8%)

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[2] The Kullback $2\hat{I}$ test

This group of conceptions portrays a teacher who makes an effort to teach and motivate but retains a dominant role.
3. *Activating students* (23%)
    In this category, students stress that the teacher should actively involve the students in the learning process, encourage them to express their ideas and opinions, and takes these into consideration.
    Now let us see how the students defined their own roles:
1. *Receiving knowledge and learning* (41.9%)
    Within this category students mostly said that it is a student's duty to attend classes and try to gain from them as much as possible and diligently learn what the teacher requires.
2. *Involvement* (29.7%)
    In this group, students go beyond mere listening to lectures, making notes and diligent memorising to learning activities that indicate more mental activity.
3. *Taking initiative and responsibility* (28.4%)
    This category shows that students see their role as also involving taking initiative and responsibility and caring about their personal growth.

The students' responses show that only a small percentage of them take responsibility for their own learning – *8.1% expressed the highest level conceptions of the teacher and student roles*. What is especially worrying is the fact that there is no statistically significant difference between the 1st- and 4th-year students in this respect. Teachers seem to be sending them messages corresponding to the traditional role of the teacher who primarily has to explain everything very clearly and show a mastery of his/her subject matter, and the traditional role of the student who has to learn the subject matter in detail and prove this in an exam.

A statistically significant connection has been found between the students' conceptions of knowledge and conceptions of their own roles ($2\hat{I}$ (6, N = 74) = 14.33, p = .026): most students who exhibit lower level conceptions of knowledge also tend to see their own roles as being »the diligent student«, while those who conceive of knowledge as understanding tend to see themselves as being active, participating, taking initiative and responsibility. It is interesting that the responses of the students who see learning as changing one's views are dispersed.

Our aim was to obtain a deeper insight into the question of whether the students' conceptions of knowledge and a student and teacher roles have changed and whether students were able to articulate and explain these changes. The following text presents reflections excerpted from the interviews taken with twelve students, randomly selected from the group which had completed questionnaires, and who are second-year or pre-graduation students in this year's study period.

4.2 Deeper insights into the conceptions of second-year students and their changing

It was proven that three second-year students clearly express their conception of knowledge in terms of critical thinking and the changing of views, they understand the teacher's role in encouraging independent learning with learners and also their own role in assuming initiative and responsibility. All three students clearly describe the changes in their conceptions:

Person A: *»Well, I feel that before I was oriented only in mastering data and facts, that later on I gradually felt a certain need that essentially I should have stepped over that barrier once and for all. Slowly I began to feel that such learning of bare facts without a certain background or without proper thinking could lead me nowhere and didn't have any effects at all. So I gradually came to understand that by starting to think about something, the point is that doing this the knowledge can actually become interesting and useful for yourself.«*

Person C: *»Specially during the study period, when it is an issue of a completely different teacher and learner role, ... that a teacher is not only the person who lectures about a subject matter and a student who learns it.«*

This student stresses in particular that a learner role is not to »photocopy« certain knowledge, but to conceive meaningful connections, to critically evaluate, not to believe everything a teacher says.

Person D: *»My conception of knowledge keeps changing. ... in order that I will truly be able to use it. ... This conception changed a lot – I used to learn only to pass an exam.«*

The student stresses that her conception of learning did not change, that even during her primary schooling she learnt mathematical principles by herself; she stresses that private tutoring is a mixed blessing since a learner has to find their own answers.

The importance of different – good – teacher role models in previous education is already set out by persons A and C, and her own learning experience by person D – *»I had studied the subject matter by myself and I truly came to understand it«*. Persons A and D set out the importance of a good learning experience at the faculty with teachers who demand a more active and independent role from them. Person C expounds the importance of lectures and discussions since we teachers constantly prompt them to think about them.

One of the students (person B) expresses her conception of knowledge in terms of understanding; a teacher is still someone who must motivate, even force students to work and to encourage them to go slightly beyond the limits of their capacities. Her student role is perceived in terms of the importance to do something on one's own initiative, to address a problem etc. She crystallises the view that you can achieve more durable knowledge if you do the work yourself; this view was prompted to by her independent seminar work as part of her study obligations. Another important experience was an independent presentation – a teaching lesson she gave at a secondary school.

Two students (persons E and F) express their conception of knowledge in terms of understanding; they expect a teacher to motivate, activate, while still stressing the importance that he/she systematically covers the subject matter, shows what is important, *»hammers particular things into their heads«* They see their own role in participating, yet it is sometimes hard to take the initiative. It is noteworthy that none of them describes clear changes in conceptions, but they both expose how much easier it is for them the to assume the teacher role and they are aware how difficult and responsible their work is. This is also stressed by person B. Person E expounds her preparations for the *matura* exams as an important experience which influenced her – self-discipline is important, you cannot learn anything at the last minute. She stresses her being more mature now, that studying has not influenced her significantly, that more practical work and communication were necessary. Person F stresses the meaning of study contents and expounds the significant experience during their studies when more active participation was expected from them: they defined the scope of previous knowledge; active participation in practical work and educational programme planning.

All six students are *critical of teaching within the study process* **–** that there is too much lecturing whereby teachers give lectures without actively involving the students. Students would like their teachers to encourage them to express their own views and to ask questions. They wish for more practical work with their active participation and more practical experience. They are particularly critical of evaluation – they say that teachers often require only a reproduction.

Person A: *»I somehow feel we still stick to the material in the manuals, which we simply have to master in the end. This annoys me a bit because it looks like a slightly downgrading attitude toward students as if we weren't able to do any better. That is, by learning the easiest way you master one definition and you present it at the exam. You show it to the teacher who, in turn, is satisfied. Essentially, I think that studies should be based on different principles with more reading and above all more understanding, not with learning by heart, which prevails as far as I have experienced so far.«*

Person C: *»Tests could be formulated to ask about your opinion on a subject, based on particular theories. You should essentially relate to some sort of knowledge, but with your own thinking included.«*

For us teachers an important message which these interviews reveal is that students want to be actively included in the teaching and learning process and that we often underestimate them, as one of the students pointed out:

»Not encouraging us is a major sign of a bad teacher. The point is that students can do a lot, although it sometimes seems that they are not aware of that, still students can contribute a lot and give many new pieces of information. It might be that we have not been »burdened« with all possible data yet and are able to disperse the flow of our thoughts in different directions…«

4.3 Deeper insights into the conceptions of pre-graduation students and their changing

Pre-graduation students gave quite dispersed answers to questions about conceptions of the teacher role: two see it in transmitting basic knowledge and in training for the future profession (persons J, K), three (persons I, L, G) stress the importance of forming students whereby a teacher should animate students, be dynamic, build on dialogue with students during lectures and also design work with students outside the lecture room (visits to institutions, case-studies, constant connecting theory and practice etc.). Only one pre-graduate student exposed the importance of activating students (person H):

Person H: *»The role of a good teacher during studies is to challenge you. To awaken a curiosity in you, and to provoke you to speak up. That you upgrade previous knowledge and open yourself up to the new.«*

It may be wise to think about the message of one pre-graduate student who stressed:

Person J: *»During the first and second year there are mainly lectures, so we don't have to think a lot, while during the third and fourth year we had more independent thinking and questioning. I think that at the beginning we thus developed a habit of coming to lectures and listening. In my opinion we became a bit lazy.«*

Therefore the first-year study experience is very important in terms of the role a teacher assumes as in this way a student's role is determined and often even fatally marked for the whole study period.

Three students stressed the importance of student participation (persons I, K, G).

Person I: *»Our role is mainly participating at lectures, getting actively involved, that you speak about themes, get information about them from your colleagues, try to obtain as much knowledge as possible. In presenting seminar papers you demonstrate the theme as attractively as possible, out of responsibility towards your colleagues. It is important that you try to present your ideas.«*

Three of them (persons H, L, J) revealed how important it is for a student to take the initiative and assume responsibility. Two of them (persons H, L) stressed that it is not enough for a good student to comply with the minimum requirements of a study programme; on the contrary, what is important are student's initiative and their own activities to upgrade the matter presented at lectures. One student particularly stressed that at the beginning she scrupulously attended lectures and fulfilled her obligations, while later in her studies she called herself a learner because she developed a deeper interest in the subject as she felt herself becoming part of the science she studied and became generally interested in its matters without a feeling of »being obliged« to do it (person J).

Person H: *»You take your obligations as an opportunity to discover something new, that you really get to know the profession you decided for. ... that you realise during the process that teachers and students essentially work for the same purpose, and gradually realise that professional co-operation between both is possible.«*

Person L: *»The role of a student is primarily in making most of the opportunities given during the educational process. To finish one's studies. To absorb as much knowledge as possible. So to say, to take maximum advantage of a teacher if he/she wants to. If it is in his/her interest to absorb the maximum knowledge a teacher possesses. And above all to get trained in practical work. And as a private consideration – to progress, to develop personally, to learn discipline.«*

In view of their knowledge conceptions we conclude from their answers that two students (persons J in K) stress the importance of understanding and practical use of this knowledge in actual problem situations. Four students (persons G, H, I, L) gave answers which tend to stress a changed view of matters, their own increased independence, a comprehensive value of knowledge and an ability to convey knowledge to others.

Person G: *»When I interconnect the facts of a subject, I become aware of my knowledge… When everything gets interrelated, when I essentially don't see connections any more, but everything is one ultimate matter, and everything becomes, so to say, one tree trunk with different branches. Then everything becomes one.«*

It is interesting that in this case a grade becomes secondary – the student maintained she does not care if she gets an excellent grade for her knowledge, what is the most important for her is to be able to combine the knowledge and also use it in the future.

Person I: *»The knowledge is essentially that with your knowledge you give something to society … It is essential to do something in your life. It is you useless if you enter your professional life without knowledge, you must offer something to the society, your employer and to yourself. Even if you have a job, I think that you must upgrade your knowledge every single day, build it up, participate at seminars.«*

Person L: *»Knowledge is essentially that you know how to use it so as to benefit you and others. Its use is demonstrated in problem-solving, improving the quality of one's life on the earth, the financial situation, helping others, conveying knowledge, developing something new, developing a particular science and profession in general.«*

All the respondents except one student (person I) refer to their changed conceptions of knowledge, teacher and student roles during their studies. One pre-graduation student expounded that the relationship with the teachers became more and more personal (particularly compared to study programmes where 400 students enrol yearly). The other four reported on many aspects of changes with their very complex interdependence – from a better understanding of teachers to different conceptions of knowledge, understanding the whole education system and the possibilities they have as counselling staff or teachers.

One student particularly stressed the importance of mutual knowledge- and awareness-building. During her study years she discovered her ability of knowledge-building in dialogue and in communicating with teachers:

Person H: *»A teacher is not an unapproachable person, but somebody who can help me and with whom I can discover, maybe also for the teacher him/herself, some unknown matters. The fact that I can discover, to build up knowledge.«*

A changed conception related to consultation hours was stressed twice – namely that gradually they become a »place of dialogue« where you can come as a student and you are welcome; where you may ask and get an answer, where you can form your knowledge in a dialogue with the teacher. In the first year they went to consultation hours only to get their grades written down. According to them this was influenced by a shift in understanding their role, but also by a process of getting closer to the teachers during studies and by the teachers' readiness, openness for dialogue and by the students' *»sincerity in seeking knowledge«* (person H). During these years teachers become not only lecturers but also mentors, partners in dialogue, as exemplified as follows:

Person L: *»You perceive a teacher not only as an authority, but also as a person. They are not an ideal person. But you understand better their reactions. And also yourself …we come here, when we are 20, we haven't gone through our development yet. Mental development. It is natural to change. The attitude to ourselves and to the study changes in years. It has changed with me. You are not so superficial any more, you want to know more and to gain more. In the first year you only want to pass.«*

The pre-graduation student expounded a turning point which marks the 3rd year. The first two years have more theoretical subjects and those which support the pedagogical science in an interdisciplinary approach to phenomena. In time the studies get more and more specific, they deepen and *»slowly you get aware of the essence of the studies, which wouldn't have been possible without obtaining a wider theoretical basis during the first two study years«* (person L).

Among the key factors in the study programme which contributed to a shift in conceptions study practice was mentioned three times, together with peer discussion at seminars (in particular at a weekend seminar) where dealing with practical cases and their explanations take place, basing it all on theoretical concepts and knowledge. Practice and visits to schools and various institutions were mentioned twice, where students actually met with educational practice and saw how particular novelties work in reality. Two pre-graduation students pointed out their experience in preparing seminar papers and their presentation – from the preparation of contents to activating colleagues and designing a presentation – in this way they acquired skills of deeper understanding of the subject matter, the writing of expert texts, a critical approach (comparisons between different standpoints and opinions of different teachers), presentations, and improved self-confidence in presenting their knowledge. One student was specially influenced by a teacher who did not allow the taking of notes in lectures till they understood the lectured contents; this will in future accompany all of her work as a teacher.

Outside the faculty one of the pre-graduation students stressed the importance of the experience she is gaining by holding various workshops for children, when she constantly verify her activities with theoretical assumptions (for example, she asks herself: *»Was it proper to react this way?«*) (person K); another student stressed intensive work on herself, on self-understanding and her reactions in the process of preparing for marriage and in her work with scouts

where her knowledge can be concretised when she prepares materials for scout leaders (person H).

Another interesting answer was that pedagogy, as a humanistic science (in this student's opinion) and with its contents, influences the formation of specific personal characteristics of an individual:

Person L: *»The contents of the studies influence you. If you read something, then you see clearly, what is right and what is not. During studies you develop a certain empathy towards people. A social sense develops. A lot. During studies of natural sciences it cannot develop as much as in programmes of social studies. Here this attitude is very important. How much work we put in communication, interaction among people. This way a person changes, also intimately. For the better, I guess. You see that you must work with a person to benefit you and him/her.«*

5   Conclusions

Students have a lot to tell us about the quality of the studies if we care to ask them. The question is whether we are prepared to listen to them or whether their reactions may prompt us to make profound changes in our own teaching when we are convinced of our indisputable superiority. I think we should seriously consider the students' statements, not underestimate that they want a more active role themselves and that our duty is to make this possible – that we create circumstances in which they can actively participate in the study process as our partners. We can sum up the interview analysis that the students have been significantly influenced by the learning experience, which has allowed them to play a more active and independent role.

To what extent can the existent taboos be shaken by a reflection of a second-year student in her assignment presenting a critical analysis of an article on active learning and teaching?:

»With almost no practical work and mostly dull lectures I experience a great contradiction between the teachers' words, our reading assignments, the words we have repeated over and over (what we perceive as active learning, what is modern – efficient teaching …) and the actual activities of most teachers. What we read in all these articles and what we learn about how teaching/learning should proceed is, in my opinion, still a taboo theme in our department and the faculty as well. Then how can we become initiators and operators of active learning? Will we know how? Or will we only talk about how good it would be to put these methods into practice?«

The answer is complex and multi-layered – in view of a teacher's direct work with students, the organisation of studies, promotion criteria for university teachers etc. In pursuing the goal of »excellence in teaching«, however, a lot of change and effort is still needed. The first step at a personal level is to perceive students as partners in the learning process – also in the search for higher quality studies. As Nightingale and O'Neil (1994) put it: when we start thinking of students as active participants in the learning process, sharing their experience

with a teacher, or as partners in the learning process, we will more easily stay focused on creating the circumstances which lead to quality learning.

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