



Students as Journeymen
Between Communities of Higher Education and Work

HPSE CT-2001-00068

National Comparison of Freshmen and Senior Students

Work package One and Two Report

Deliverable 8

Project Students as Journeymen between Communities of Higher Education and Work

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Learning

The psychology programme is a problem-based programme, which differs from the other programme as regards its organization of working forms. Students work in small groups and high emphasis is put on the importance of students becoming self-directed in their learning and the importance of formulating personal learning needs as a starting point for the learning process. These organizational features are also reflected in the students' comments about their learning in the programme.

Similarities between freshmen and senior students' conceptions of learning

Both freshmen and seniors emphasize the need to be active in the learning process, they refer to features of PBL such as the selection of content and the need for compiling, scrutinising and synthesising their individual contributions in the tutorial group. The group dynamics is considered an important learning aspect for both groups. Another feature that is frequently mentioned in both groups is the importance of learning about learning. The ability to prioritise, to look for causal and other relationships, and the ability to produce written documents are examples of such features.

Differences between freshmen and senior students' conceptions of learning

Freshmen talk about learning content and the selection process which they need to master in order to identify the content needed. They also talk about the value of learning group dynamics. Seniors phrase this differently; they emphasize the importance of personal involvement and learning in and through practice, which they refer to as the most valuable learning situations in the programme. Examples of learning situations in practice are practice periods, ego therapy or when they work with clients under supervision at the department clinic.

Knowledge and competence

In contrast to the political science students the students of psychology view their subject as a professional field of knowledge. They talk about knowledge in different areas concerning different topics. Knowledge about *empathy*, how to view the patients/clients and to feel with them are outspoken by many students. Another important kind of knowledge is *theoretical knowledge*, in the sense that the students are referring to the scientific knowledge but there are also mentioned the competitive schools within the subject of psychology. Furthermore *professional awareness and communicative skills* are being mentioned. When it comes to professional awareness the reflection and the critical attitude are in focus, the communicative skills are not frequently mentioned which is somewhat surprising. When it is mentioned it is in terms of being a good listener. The last kind of knowledge is *ethics*, frequently mentioned, as the students at the time there were being interviewed which took a course in ethics. The psychological knowledge in ethics comprises several and different perspectives that exist in parallel. Most students seem to accept this fact and the learning task is to try to understand and master a number of these perspectives. This gives a flavour of *pluralism* to the student's descriptions of their learning objectives. In some cases the

pluralism is replaced by an *eclectic* notion i.e. the students try to establish a perspective comprising the most valuable parts of a number of schools.

To the *senior* students knowledge is composed of intellectual skills and social and emotional engagement. The discourse seems to present a kind of Janis face – like in the case of the political science students – but in another respect. The students say that it is appreciated if they have a critical attitude towards the content of the studies. They are not expected to be too critical, neither against the working forms nor the content of the programme.

Similarities between freshmen and senior students' conceptions of knowledge and competence

Both groups describe knowledge as comprising of intellectual skills and social and emotional engagement.

Differences between freshmen and senior students' conceptions of knowledge and competence

The freshmen are in general not particularly critical to their programme while the seniors express that it is good to be critical but at the same time within certain limits.

Psychology students: Visions of the profession

Professional knowledge and competence

Personal skills and attitudes dominate. Self-awareness is also mentioned as an important capability of a good psychologist. Many students refer to the existence of awareness in humans, and the answer differs into two categories. One says that clients may be aware of what they report on when talking to the psychologist, another answer means that is implicit in what they say and means and that the psychologist can get access to it because of their professional knowledge and skills. Being a psychologist is to a large extent equal to being an interpreter of what people say and being able to understand their problem or to understand the real causes of a problem that they talk about.

Senior psychology students say that they have to develop a kind of dual professional identity. On the one hand they have to be professionals in a more traditional sense; that they master theoretical as well as practical knowledge for different purposes in their work. On the other hand they have to develop skills as a kind of professional fellowman. Particularly in the listening parts of encounters with patients they have to take on this latter role. The development of a certain professional "personality" is necessary as a guard for the genuine personality and to be able to maintain emotional and social stability in one's private life.

Similarities between freshmen and senior students' conceptions of professional knowledge and competence

Both groups are making it quite clear that the attitude and personality of the psychologist is an important feature of a professional role.

Differences between freshmen and senior students' conceptions of professional knowledge and competence

The freshmen are providing theoretical descriptions of how awareness is viewed in different traditions. This aspect is not represented in the senior answers. The senior students emphasises the problem with trying to cope and handle a difficult professional role, to distinguish between the role as a psychologist and the private life.

Moral and societal responsibilities of professionals

Regarding the role of the profession freshmen refer to two different aspects. The *psychologist as a helper*, there is a strong conviction that the psychologist as a person is the working instrument and therefore, there is a need for self-knowledge, self-confidence and self-reflection. There is also a worry about the capability to manage in the professional role, a worry about not being able to cope with the burden of carrying the problems of clients.

Another way of seeing the *psychologist is as a social engineer*; students holding this conception of the psychologist's role separate the theoretical knowledge base with the professional activity and focus on what actions to take to solve the problem. The psychologist role is the expert observer who understands and can describe people's behaviour through analyses of hidden layers of the personality.

Senior students refer to psychologists as having a unique role in society as they have been trained to see complex human phenomena from different perspectives and also to integrate these perspectives into more holistic pictures of what influences humans. This is a professional skill that may be more important than ever before since the modern society builds on highly but narrowly specialised professionals. Thereby there is a risk that no one single professional group takes on a more holistic perspective on threats to human psychological and social welfare.

Freshmen identify a strong consciousness of the professional moral responsibility to be aware of power relations both in the personal encounter with clients and in decisions regarding their case. There is also a moral responsibility to help other people. The environment expects the psychologist to be someone who represents a high moral and stands above ordinary people or possess abilities that ordinary people do not have.

Seniors put forward two particular kinds of moral dilemmas and responsibilities. One is very clearly related to work with clients, and the consequence of actions, how the psychologist should handle specific cases where interests are conflicting, e.g. the *professional secrecy* in a case where the psychologists in confidence finds out about a child being mistreated or sexually abused. The professional responsibility to report to the authorities could then create a moral dilemma in relation to the individual client.

Another aspect has to do with *separating the professional and the private role*. Psychologists may come to know things about people who may also be neighbours, that no one else knows. In cases like that you have to learn to distinguish between your professional relations and your private social life.

Similarities between freshmen and senior students' conceptions moral and societal responsibilities

Both freshmen and seniors have the feeling that other people expect psychologists to take a greater moral responsibility than others.

Differences between freshmen and senior students' conceptions moral and societal responsibilities

Seniors describe more in depth the relation with clients, and moral dilemmas connected to this situation e.g. the professional secrecy whereas freshmen speak more generally about the power relation between psychologist and client.

Learning

An overall reflection applicable to all students' accounts – regardless of which programme they are studying in – is that they refer to one or more of the following contexts and acts of learning.

- Teaching situations e.g. lectures
- Informal group discussions with peer students
- Applications e.g. in periods of practical work independent studies – reading alone
- Independent studies – reading alone

The perhaps most essential similarity between freshmen and senior students is that many students are motivated by a personal learning project rather than by explicit plans for a professional career. Studying political science is to a high extent a personal *bildung* project. Both freshmen and senior students refer to conceptions of learning as acquisition, understanding strategies and reconstruction and they rarely describe rote learning.

Learning political science is somewhat heterogeneous due to the dual nature of knowledge. On the one hand there is a massive body of knowledge about factual circumstances in the political system. On the other hand there is the critical analysis of political ideologies. This conflict seems to be most problematic for the freshmen, because they are expected to learn factual knowledge, to accept the existence of authorised knowledge and to be critical and to have opinions. The senior students say that the teachers want them to be active in discussions and to defend their standpoints.

The senior students say that the most significant learning experience is writing the thesis. It gives them an opportunity to concentrate on and penetrate one issue and to apply both theories and research methods in political science. The learning situation is quite different for freshmen.

Similarities between freshmen and senior students' conceptions of learning

Both freshmen and seniors mention learning as active engagement and learning as a personal educative project (*Bildung*)

Differences between freshmen and senior students' conceptions of learning

Seniors emphasise their thesis as the most valuable learning experience, and independent task where theoretical knowledge can be integrated and put into use

Freshmen have a sequential notion of learning, first to learn facts about political systems to meet the requirements of the educational system, later to critically analyse and discuss in between them.

Knowledge and competence

In general terms political science is not conceived of as a professional field of knowledge but rather as an important component in a personal *bildung* project. There seems to be a hierarchy, expressed implicitly by most of the students. There is on the one hand knowledge in the sense of *descriptions* of political systems. On the other hand knowledge is referred to as *understanding* the political systems. Another way of expressing the conception of knowledge is to *have knowledge about* political ideologies. Furthermore the most sophisticated kind of knowledge comprises *analysing and comparing political systems*. To acquire all these kind of knowledge you have to be objective and open-minded.

The *senior* students report that the study programme appears to expose two different faces. In the first half the students are asked to read a lot of books and to learn as much as possible from them. The second half comprising approximately two years means the writing of two theses that puts demands of an entirely different kind on the students. Some students report that they prefer the first half of the studies because they appreciated the feeling of safety and control.

A majority of the students do however prefer the second half. The most important reason stated is the intellectual challenge that they are facing and secondly because they find the research-like context of learning more fruitful.

Similarities between freshmen and senior students' conceptions of knowledge and competence

Both groups of students describe a hierarchy or sequence of knowledge. The freshmen describe it in a more theoretical way, the seniors emphasises the relationship between theory and practice.

Differences between freshmen and senior students' conceptions of knowledge and competence

As mentioned above, the experience of how knowledge is perceived differs between the groups, in that the hierarchy construction is more obvious among the freshmen whereas the seniors emphasize the sequential order.

Political Science students: Visions of the profession

Professional knowledge and competence

There seems to be two main categories of answers, one emphasising specific knowledge pertaining directly to the political system, and a second category focussing on personal skills such as flexibility, creativity and innovative thoughts. It seems as if the students do not have any idea about what kind of profession they will be enrolled in. Their role models are in general the university staff. There is one group of students who envisage a career in the civil service and diplomacy and one group is talking about making a political career. The concept open-mindedness, tolerance and communication are clearly emphasised, as typical features needed for the study of political science.

The answers are even among *senior* students characterised by the lack of any clear role models. Their reports of the structure of professional knowledge and competence is clearly reminding of those given by the freshmen. A political scientist has to know a little bit of everything and has to be able to combine factual knowledge with deeper analyses. The writing of the thesis is mentioned by many of the students a kind of turning point in their identity. For the first time they do now feel a

kind of professional affiliation. Some of them do however still doubt that they will ever identify themselves as political scientists.

Similarities between freshmen and senior students' conceptions of professional knowledge and competence

Both groups express the lack of a present role model.

Differences between freshmen and senior students' conceptions of professional knowledge and competence

Freshmen have a vague picture of the coming profession. When asked they refer to answers that pertain to the content of the education i.e. theoretical knowledge. The seniors are starting to create a professional awareness when they pick subject for their master theses.

Moral and societal responsibilities of professionals

The freshmen refer to a number of aspects concerning the role of political scientists as professionals. One is to explain to other people how the political system works, but also to develop and improve the political institutions as civil servants, and also to exercise control within the political system. In general terms the political science freshmen are well aware of the professional territory. What seem to be unclear are, however, which roles political scientists play on these arenas. Important features for a political scientist is to identify and be aware of different perspectives and to communicate with other people to shape understanding. It is also important to have an opinion of your own.

The senior students emphasise the role of political scientists as the ones who dig out information, investigate, analyse and synthesise information and keep track of what is going on in society. The answers have a flavour of political scientists taking on the role as critical journalists. This notion of the professional role may from a Swedish perspective very well emanate from Swedish political scientists being frequent guests in mass media to comment current affairs national as well as international ones.

A few freshmen convey an idea about moral responsibilities for political scientists and in doing so they take their enrolment in political life as the point of departure. Politicians have to be good moral role models and hence they have to live an immaculate life themselves from a moral point of view. Senior students see moral responsibilities as comprising the role as a kind of gatekeeper role to defend democracy, to educate people etc. Political scientist are also conceived of as objective in their role as experts. The moral dilemmas they describe are besides possible conflicts between their future role as civil servants/politicians and their role as private persons and when legislation and personal conviction differs.

Similarities between freshmen and senior students' conceptions moral and societal responsibilities

Political scientists are conceived of as objective in their role as experts of both freshmen and seniors.

Differences between freshmen and senior students' conceptions moral and societal responsibilities

Seniors identify a moral dilemma between their future role as civil servants/politicians and their role as private persons.

Engineering students: Visions of the Programme

Learning

Engineering programmes in Sweden have an image of being demanding both regarding workload and particular abilities e.g. in mathematics. It is a masculine world and from the start the students hear their teachers describing them as an elite and their school as the best in the country. Competition is something important but the students are all in a common situation, facing a common challenge that most of them are doubtful about whether they will be able to meet. This

unifies them, brings them together in real co-operation. They form informal groups and they do not regard each other as competitors. This description of the situation is valid both for freshmen and senior students. One can say that the learning situation for engineering students is a question of coping with the studies, to manage and to be able to finish the studies within a reasonable time period.

Knowledge is among freshmen students conceived of as authorised and the corresponding learning objective is to learn these good solutions to various problems. They learn by observing how teachers do when they formulate and solve problems, and then they go home and try for themselves. After that they gather in informal groups to compare and fine-tune their ways of understanding and tackle problems. The senior students do more or less the same as the freshmen, but the second half of the studies stands out as considerably more relaxed and laid-back than the first half. The reasons for this is that the senior students study groups are smaller which makes it easier to get in contact with the teacher and the students know how to prioritise reading materials and how to write reports.

The senior students have carried out an independent project and written about this in their master thesis. This is a learning situation, which they have gradually been training for during the second half of the programme. This is something that the freshmen have not experienced.

Similarities between freshmen and senior students' conceptions of learning

The conception that learning is for solving problems is similar to both freshmen and seniors.

Differences between freshmen and senior students' conceptions of learning

Freshmen talk about authorized knowledge and the learning objective of finding good solutions and learning by observing teachers. Working together in groups to reach consensus is emphasized reflecting the conception that the authorized knowledge is possible. Seniors have a more skeptical attitude; they talk about learning as how to cope with their studies and a doubt about whether they will be able to meet the challenges they are facing. More time is spent on learning activities in the beginning than at the end of the studies.

Knowledge and competence

In this group as well in the others there is some consensus about a number of aspects of knowledge. The most common one is the *discipline-related* one, the student's refer to the essence within a certain area such as mathematics, and the sciences. Another aspect is the *social and communicative generic skills*, this contains the ability to co-operate and function well in a group, being a listener and to make oneself understood. Furthermore the students mention the importance of *generic analytical skills* when it comes to solving a specific problem, the student have to acquire a problem solving process i.e. a specific engineering thinking. Another kind of knowledge is the *practical skills*. The essence of this category is the lack of correspondence between theoretical constructions and application in practice. Another more implicit category is the one of *scepticism*, the student do not deal with the question explicitly but take the opportunity to express their doubts that the programme will help them to develop necessary knowledge. A distinctive feature of some engineering students is the notion among them that the knowledge is one, authorised and not negotiable.

The *senior* students emphasise that the discourse demands discipline and hard work. To cope with these demands a majority of them stick to their informal groups, in particular when preparing for the exams.

Similarities between freshmen and senior students' conceptions of knowledge and competence

The freshmen and the senior students express that working with peer students are essential for their knowledge formation.

Differences between freshmen and senior students' conceptions of knowledge and competence

Like the psychology students the engineering freshmen express doubts that the programme will give them the necessary preparation for the coming profession.

Engineering students: Visions of the profession

Professional knowledge and competence

All the answers indicate a width as to their knowledge and skills and the engineers are problem solvers. Besides they also have to be able to communicate and co-operate. There is a contrast that the students report that their studies so far do not show any connection to a coming working life. To some students the courses are preparing for the programme itself. One answer also indicates the ability to see possibilities, which implies a kind of creativity.

Almost all *senior* students in this group emphasise the necessity of possessing good generic skills, of which problem-solving skills are mentioned most frequently. Even seniors do also stress the importance of good abilities in mathematics and the sciences. Senior students point to a high status for factual knowledge and the use of a well defined jargon in comparison with other student cultures.

Similarities between freshmen and senior students' conceptions of professional knowledge and competence

Both freshmen and senior students are pointing to the vitality of a problem-solving culture.

Differences between freshmen and senior students' conceptions of professional knowledge and competence

The freshmen state that creativity- to see the possibilities is an important feature. On the other hand the seniors say that a specific jargon is starting to develop, and recognise the fact that in Sweden engineers have a high status.

Moral and societal responsibilities of professionals

Freshmen stress the societal utility of the work of engineers. The engineering students are aware of the relatively high status of their coming profession. Engineering is held to be a core activity in society and it is frequently pointed out that technical progress is the *sine qua non* of social welfare in society. The indispensable engineer at society's service; the identified discourse is that the engineer is indispensable and can analyse problems and provide a variety of solutions within a broad range of areas that are to the pragmatic use for people and imperative to the improvement of society.

The senior students share the emphasis on utility with the freshmen. The role of engineers for the development of new products is more or less taken for granted and the fact that engineers also develop unnecessary and hazardous products is also mentioned by one of the students.

Freshmen report that they do not see any particular moral responsibilities in relationship to their work. On the other hand they mention the fact that products that are hazardous to humans – like military weapons – or the environment – preferably chemicals, are produced. Freshmen also tend to deny the existence of any dilemmas connected to their professional role.

Seniors identifies three aspects of social responsibility. One has to do with *leadership* and one has to do with *privileges and status*. The third aspect points out that *everybody has a social responsibility* and engineers do not differ in any significant respect. Some mention that engineers may be unique in that they have a special responsibility when it comes to *environmental issues and safety*.

Moral dilemmas have to do with *what is produced* rather than how something is produced regarded from the senior's point of view. A group of products that is frequently mentioned is warfare materials of different kinds, sometimes also products that are *hazardous to the environment*. To some students moral dilemmas may also emerge depending on who will be in possession of the products.

Similarities between freshmen and senior students' conceptions moral and societal responsibilities

Both freshmen and seniors stress the societal utility of the work of engineers.

Differences between freshmen and senior students' conceptions moral and societal responsibilities

The freshmen deny the existence of any moral dilemmas connected to their professional role, whereas seniors see moral dilemmas related to what is produces rather than how something is produced.

Analytical summary of the results

First of all one has to bear in mind that the empirical data are gathered in a study with a cross-sectional design. This means that we do not have data from the same individuals at different points of time, but from different individuals at different stages of their education. The comparisons reported should rather be looked upon as differences and similarities between students at the beginning and at the end of their studies.

Political science students

These freshmen seem to have a fairly good notion of what political science is a field of study, an insight that is even stronger among seniors. The latter report that writing a masters thesis has helped them a lot to understand what political science is about. Their picture of what a political scientist is as a professional position is, however, rather vague among freshmen and this impression is still there among the seniors. One could say that the absence of clear role models is the foremost source of the uncertainty. If any role models are mentioned at all by the freshmen they mostly mention their own teachers, whereas some seniors do also mention political scientists that appear frequently in mass media as their role models. Senior students do above all mention a set of generic skills such as being able to formulate analyse and solve problems and furthermore to document and report their analyses and solutions to problems. In all likelihood they are heavily influenced by their experiences during the work with their master theses. It is, however, worth mentioning that these students emphasise individual rather than social generic skills. This is perhaps the most

obvious difference between freshmen and seniors, among the former a majority emphasise the importance of being able to collaborate with others. The ability to collaborate with others or the need for empathy or taking other peoples' perspectives is seldom or never mentioned by seniors.

The most striking difference between freshmen and seniors is that the latter appear to have acquired a kind of investigator's/evaluator's identity. Such an identity is not as obvious among the freshmen that rather emphasise the task of political scientists as that of being a kind of watchdog for democracy and global justice.

Psychology students

Freshmen in the psychology programme have a relatively clear notion of what psychology is as a field of knowledge. Their notion of what the field is about is already from the outset affected by their relatively clear picture of the professional role and fairly convincing at the end. One should bear in mind that the psychology programme is a problem based learning programme, with an explicit ambition to integrate basic and applied parts of the studies already from the beginning. This is also indicated by the fact that the freshmen often talk about the various parts of the field in terms of applied areas.

Both freshmen and senior students do heavily stress the importance of social generic skills. These comprise above all the empathic abilities as a necessary skill for a professional psychologist.

A characteristic feature of psychology as a field of knowledge is the existence of a set of schools according to which man is conceived of in different ways, pertaining both to motives, functions and aims of human thought and actions. The students are fully aware of this fact already from an early stage in their studies. They do however cope with it in different ways. To some the solution is a kind of pluralism i.e. they acquire insights and subsequent diagnostic and therapeutic skills according to different schools to be able to handle patients with different problems in different ways. To others the solution is the construction of a kind of subjective eclectic perspective i.e. they construe a kind of personal psychological theory comprising elements from different schools in the field.

Another difference that seems to be established quite early and still is present at the end is the role of the psychologist and the client in diagnosis work. To some the psychologist is the expert who based on the information provided by the client is able to put a correct diagnosis and suggest an effective therapy. To others the awareness about the problem is to be found within the client and if the psychologist is a good listener and mentor it may result in the patients clear understanding of the problem and also in what ways it may be dealt with. This is also the main difference between a cognitive and a psychodynamic school in psychology.

Psychology as a field of knowledge is both among freshmen and seniors somewhat vague, whereas the professional role is rather clear already in the early stages of the studies and even more so at the end. This somewhat paradoxical fact is possibly understood if the frequent periods of professional experience are taken into account. The seniors' experience of what it is like to work, as a professional is so rich that their doubts about what the professional role means is gradually eliminated.

Engineering students

Both freshmen and seniors in the engineering programme appear to have a clear notion about the field of knowledge as well as of the profession. They do, however, express clear doubts about whether these two are obviously linked to each other, a doubt that freshmen express and that is still prevailing among seniors. Both groups express that knowledge in the field of engineering as well as

the work done by professional engineers is central to the development of society at large, even though there is some irony in the answers as they say that, “engineers are the people who really build society”.

The freshmen have a relatively clear notion of the professional role, but in all likelihood this picture does not stem from their studies. Introductory parts of engineering programmes are dominated by mathematics and the sciences, which is only one component of professional skills among engineers. It seems rather as if the students’ role models in engineering are found outside the education. They do probably not regard their mathematics and physics teachers as “real” engineers.

Senior students are still somewhat uncertain about the professional role. There is a comprehensive individual task to be carried out as the last part of the programme. This experience does not, however, seem to provide them with a clear picture of what engineering work is about, at least not in a way that corresponds to the illuminating function that the counterpart does for the psychology students.

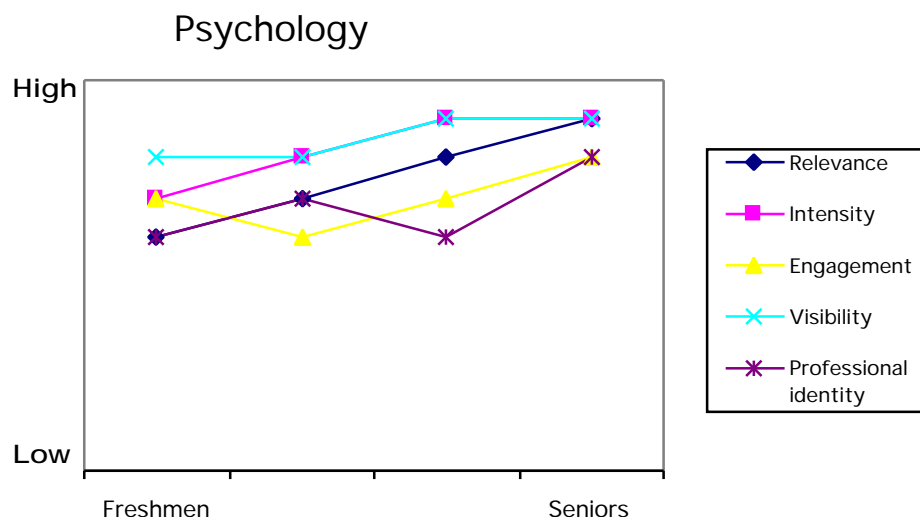
Discussion and some tentative conclusions

In the following, we will provide some tentative suggestions for a longitudinal interpretation of how students experience the course of their studies. It has to be remembered, though, that data are cross-sectional and that empirical observations are made at the beginning and at the end of the programmes. The dimensions depicted by the graphs in the figures 1-3 are derived from the empirical analyses. We have chosen to focus on five dimensions; the experience of the relevance of the studies for the profession, the level of intensity regarding the students’ workload; the students’ engagement in their studies; the students’ feeling of being visible to the teachers and, finally, the extent to which they develop a professional identity.

Psychology students

The Discourse of the psychology program has a professional focus that is present from the outset of the program. The psychologist is the instrument for analysis and treatment of psychological problems, and students are to be tuned into becoming this kind of instrument. There is also a focus on the individual; students are selected from individual interviews. The students are visible for fellow students and teachers from the outset of the program due to the problem-based learning methodology that is applied. There is a clear emphasis on communication within the program.

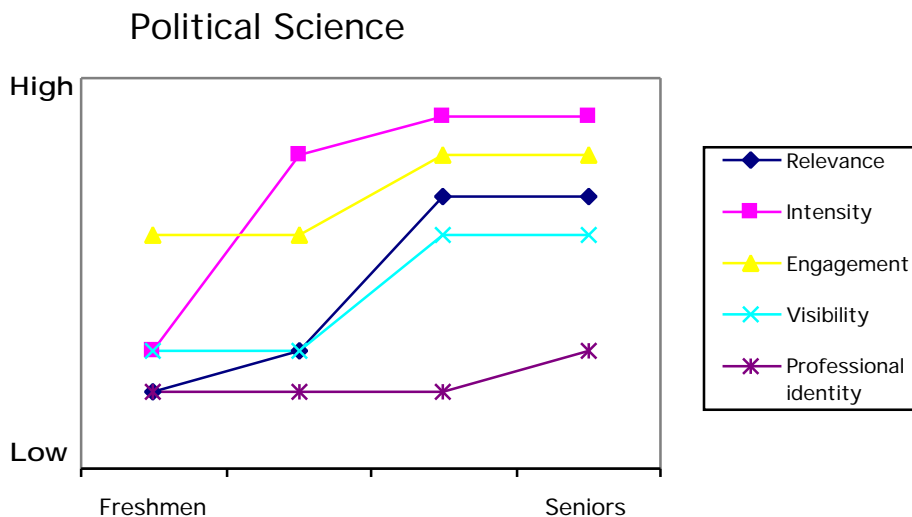
The relationship to teachers is unclear, teachers play a withdrawn role as communication partners



in the group work and students are highly referred to each other. There seems to be a discourse among the students that the process of turning into a psychologist means hard intellectual and emotional work. The student project is two-fold, to learn the relevant theories and to integrate them into themselves. Freshmen still see the personal learning separated from the content learning. Senior students have experienced periods of clinical placements in which they have been able to integrate the content learning with the learning about their own person. In the freshmen data we can see these two component parts of a psychologist professional competence occurring as separate conceptions of the professional role of a psychologist, the *Helper* and the *Social engineer*.

Political Science students

Our hypothesis is that the educational Discourse in Political Science conveys that students should be provided with basic knowledge about political theories at the outset of the program. As the course of the program runs, the important issue is to teach the students methods for critical analysis, investigation and comparison between different political systems. Possibly there are parallel tracks that the students eventually find and niche themselves into. These could tentatively be labelled the creative, investigative track and the entrepreneurial track.

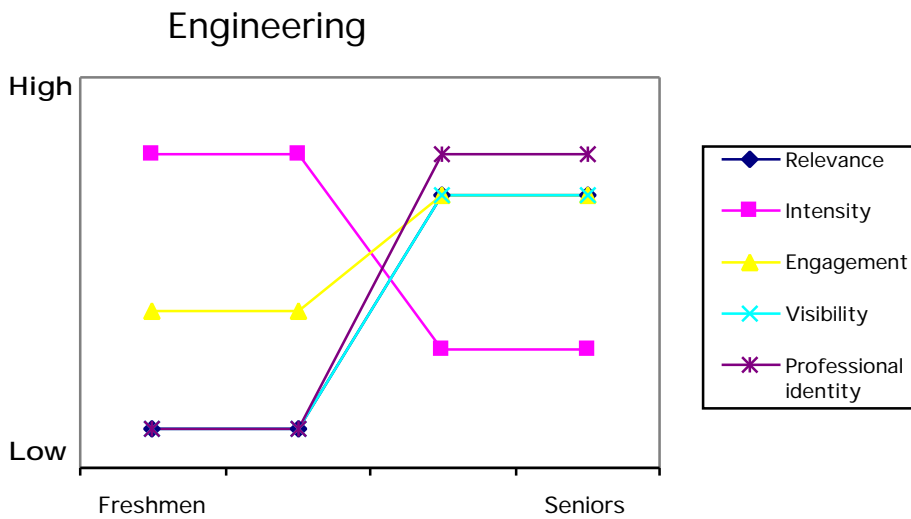


The relationship to the teachers is *horizontal*; student’s experience that they can make their voice heard and gets listened to. The teachers appear as a kind of role models for the students. The contact with teachers is less prominent in the initial phase of the program and the students feel more anonymous as freshmen than they do as senior students. The rationality within the program is a combination between communicative and critical rationality. The professional identity is low at the beginning of the program and continues to be so through the course of the programme, students embark on the programme with the intention of getting a general education, a personal *Bildungsprojekt*.

Engineering students

The discourse within the Engineering programme resembles the one in Political Science in that the notion is providing students with a basic knowledge from the outset of the program. The intensity

is extremely high, students professional identity is low as they fail to see the connection to the professional field as they engage in the tasks of the freshmen studies. This naturally also impacts on their engagement in the studies. The rationale behind this discourse is to prepare students for



hard work, to enhance their capacity of learning new things rapidly. The relationship to teachers is *vertical*; students are anonymous to teachers in the freshmen part of the studies. The rationality is goal-oriented and emphasis on communication is non-existing.

Concluding remarks

The feeling of being prepared for future professional work varies between students in the various programmes. The students of psychology seem to feel rather well prepared, even though they still struggle to understand the nature of psychological theoretical knowledge. They do, however, have a fairly clear picture of how psychologists do when they work, mainly because of the rich and varied experience of practice during their studies. The political science students have a very vague notion of what political scientists do when they work. To some extent they do, however, develop an identity as a kind of general investigator after having written their two theses during the second half of their studies. Engineering students still express doubts about their professional identity even at the end of the programme. The last part of the studies comprises a special task to be carried out in combination with writing a thesis. It is not until they have this experience – which also means their first more intense contact with potential employers – that they begin to take on an identity as engineers. Several of them are still doubtful about whether they have an optimal preparation for professional work.

Not surprisingly students in the two professional programmes seem to differ from the liberal arts students as regards their professional identity. Even though students of political science have a clear notion of what political science is about, they are still unclear about what political scientist do. It is, however, somewhat unexpected that the engineering students have to struggle until very late in their studies before they can discern any contours of a professional role model. The clarity of the professional role is perhaps too much taken for granted in engineering education.

The reports from the psychology students may be more understandable if one can hypothesise that theoretical knowledge in psychology is transposed into practice during their studies, which makes even theoretical knowledge easier to grasp for them. The feeling of having spent a lot of time

discussing and trying to understand the professional role may also give the students a feeling that too little time has been spent on the theoretical parts of the programme.

Introduction

This analytical report is based on the empirical material published in the preceding reports from WP1 and WP2_1 packages. The data pertaining to the analysed phenomena *is not repeated* in the text, which means that for the full meaning to be grasped, the report should be read together with the preceding ones.

Psychology Students: Visions of the Programme

Knowledge

Similarities between freshmen and senior students' conception of knowledge

The core of academic knowledge is seen as dominated by theoretical paradigms, which both groups of students describe as “overdose” in the programme.

Gaining practical knowledge (procedural *know-how* and making theory useful for practice) is perceived by both groups of students as an indispensable condition of attaining professionalism.

Differences between freshmen and senior students' conception of knowledge

Freshmen students represent a “school” (unscientific) way of thinking about theoretical and practical knowledge, which appears as the opposition between theory and practice (understood as separated classes for introduction to theories for problem-solving tasks). A few of them speak of a possibility to grasp theory and practice simultaneously.

Senior students see knowledge as “operational theory” (theory in use) that reminds of a scientific process of investigation and occurs very useful in attaining competence to practical problem solving.

Senior students can deduct meanings individually with an internal sense of control whereas the freshmen have “open minds” to the induction of psychological ideas.

Freshmen students are full of trust that they will be taught and that practical learning that meets the demands of their professional duties will be organised for them, whereas seniors are disillusioned and criticise the incompleteness of practical education. Most of them gain that knowledge individually (without institutional provisions, but being encouraged by staff) starting work as volunteers, taking part in autonomous courses and making efforts to find areas for practice.

Hypothetical explanations

The relationship between theoretical and practical knowledge (visible in freshmen's conceptions as integrated into one conception of *operative knowledge*) can be explained by the way in which the students are progressively introduced into the discipline of psychology, presented in Gdansk as empirical science where all ideas susceptible to research must have their operational definitions. Students receive master grades mainly on the basis of their methodological competencies. The re-shaping of the understanding of knowledge (from dualistic, contrasting theory and practice, to “operational”) can be seen as fulfilling institutional demands (see: educational context). Theoretical knowledge seems to be transmitted completely and *needs* to be “made operational”, whereas the

institution, for some reasons to be analysed later, seems to be reluctant in organising direct practical experiences for the students.

Freshmen's trust in academic authorities (which may make them appear naive) is facilitated by the extensive study programme whose structure offers a lot of possibilities and promises. Freshmens, opposite to seniors, follow a newly reconstructed programme (see: the educational context). They might have find there a confirmation to their expectations and optimism. Seniors (following the old version of the study programme) complain about being set apart from practice and not prepared to professional competency. Poor institutional programme of practical training (a few visits to clinics and a few at schools and kindergartens during five years of studies) doesn't let them verify their abilities in broader social contexts. On the other hand, some senior interviewees reveal some teachers' reluctance to sharing practical experience. In the opinion of the students, the programme does not seem to be pragmatic or adequate to the job market demands. It makes future professionals confused and doubtful.

Learning

Similarities between freshmen and senior students' conception of learning

The main similarities within the results of the two groups of students refer to such conceptions of learning as acquisition of knowledge and operationalising theory (application of knowledge), which are the interviewees' basic strategies of getting knowledge.

There are two forms of the application of theoretical knowledge in practice: experimenting on themselves or on other people.

Differences between freshmen and senior students' conception of learning

The freshmen believe that the completion of their studies will be the end of their time of learning and the start of a new period in their life - professional work. Their time perspective of learning includes only the studies time (five years).

The seniors are conscious that lifelong learning is essential for professional development and they have to deepen their knowledge throughout the whole of their professional lives.

Freshmen students think that the diploma will be a certificate of being a specialist who possesses adequate knowledge and skills and is already completely prepared for beginning work.

Senior students already know that completing their studies will not change their status - they won't be students but cannot yet become full members of professional environments. In order to become specialists in their jobs they will have to undergo training for a long time.

The students of the fifth year express their acceptance of the necessity of continued learning as trainees after finishing their studies (this is a result of power discourse).

The change in the locus of motivation of learning activities can be observed. In the freshmen group, the domination of internal motivation was apparent in the strong need to help others, whereas the senior students' responses indicate external motivation directed and shaped by lucrative work expectations. It is possible that a proportion of students choose to specialise in Organisation and Management because they don't feel competent enough to be psychotherapist.

Hypothetical explanations

Learning is located both in institutional and life world settings. The "incompleteness" of the programme (lack of practical experience) activates the life-world setting as a meaningful

supplementation to institutional learning. The “lack” here works, then, as an active force, and it is reinforced by direct suggestions from the teachers that acquiring practical knowledge (outside university) is crucial for professional development. This can also be seen as a preparation to the status of apprentice in future professional settings – the students are aware that they “don’t know how to work” and are thus prepared to accept lower positions in professional ranks.

Competence

Similarities between freshmen and senior students’ conception of competence

Both freshmen and senior students in psychology accentuate social competence as the main criterion of being a good student (social discourse and organisational culture)

Students in both these groups underline the importance of the active deepening of their knowledge and the perfecting of their skills during their studies (striving for professionalism - intellectual activity, engagement in activities offered by the institution and extracurricular activities such as special courses, training, voluntary work; the ability to search for information independently, the motivation of achievements)

Differences between freshmen and senior students’ conception of competence

Freshmen students gradually acquire the ability to use professional jargon whereas senior students already fluently speak the ‘psychological language’.

The division between formal competencies (the ability to fulfil institutional demands) and informal competencies (in relation to colleagues) identified in freshmen students disappears in senior students. Senior students accentuate personal development and self-realisation, which are evaluated by using different criteria from those in younger students.

When freshmen students describe social competence they underline activities and development, which are allocated within the academic institution, peer group and professional life (with a slight emphasis on group activities). This is a result of freshmen’s tendency to form strong community relations. Senior students concentrate on the acquisition of professional competence - their activity focuses on the professional locus.

Adaptation to the wide social environment in the first year of studies is transformed into the careful choosing of mentors (in the institutional locus) and friends by senior students.

Hypothetical explanations

Organisational culture demands the practice of jargon - the specific style of communication characteristic to psychologists. Using the specific psychological language is necessary for effective functioning in the university environment at first and later in the professional environment (initiation is a function of language).

For freshmen students this professional language is something new and thus they have some problems in the synthetic comprehension of the whole subject of psychology as a scientific discipline (they perceive only ‘pieces of knowledge’ like biomedical or social subjects, and they are

not able to integrate them yet - external locus of control). They are prepared for redefining their knowledge.

Senior students possess, fluently speak and manipulate the psychological jargon. This manifests the internalisation of external control. This group is already “colonised” and they feel good in their community because they understand the environment. They can also “colonise” the external social world using the professional language.

The perspective of evaluating their own competencies is changed from external (external standards - fulfilling other people expectations and demands) to internal locus (internal locus - ‘I am the judge of my competencies, not other people’). This is a result of the changes of identity - emotional, intellectual and social maturing (development of independent reflection).

Freshmen’s orientation towards community relations can be a result of the new situations for them (new environment, change of place of living). Senior students’ social relations are mature, sophisticated friendships. Sometimes they distance themselves from the group in order to search for deeper values in interpersonal relationship.

Psychology Students: Visions of Work

Professional knowledge

Similarities between Freshmen and Senior Students’ Conceptions of Professional Knowledge

The limited understanding of theoretical knowledge as linked to several key topics from the first grade of studies.

The conception of practise occurring in the understanding of knowledge in Freshmen is also discernible as some features of ‘common wisdom’ and operative knowledge in Seniors.

Differences between Freshmen and Senior Students’ Conceptions of Professional Knowledge

Freshmen see knowledge as subject to academic transfer: a scope of necessarily needed professional information ought to be given to the students by their university (theory means several key topics in the list of 1st grade courses). They also distinguished the practical knowledge that fruitfully supports their ability to manage in everyday-life situations.

Seniors make thinking of knowledge more complicated. For example, although knowledge as theory occurs in the Seniors’ statements, it is explicitly presented that it is operative knowledge. The aspect of “action” that makes knowledge alive and useful exists also in the other conceptions of knowledge in Seniors.

Hypothetical Explanation

Seniors present their experiences gained during the studies. Although they talk about theoretical knowledge almost like Freshmen, for whom it is a “mental link” to selected study courses, they understand it more deeply, putting emphasis on practical aspects (*knowing in order to...*).

Professional competence

Similarities between Freshmen and Senior Students' Conceptions of Professional Competence

There is no change in understanding the issue of professional language between Freshmen and Seniors. This language characterises competencies of a given specialisation. However, the role of language is perceived by Freshmen in a more holistic way (a marker of professional identity that is defined by language). Seniors grasp it as a condition of fluent communication in the professional space that becomes their own.

Both groups' approach to the "social competence" looks the same, although Seniors put emphasis on 'communicativeness' and 'openness'.

Differences between Freshmen and Senior Students' Conceptions of Professional Competence

The conceptions expressed by Freshmen present particular competencies that finally refer to the vision of a 'pure' profession such as that of a clinical psychologist. Seniors see the professional competencies more holistically.

Freshmen apotheosise the competent psychologist and exaggerate in boosting particular competencies, finally treating them more meaningful than they are.

Seniors' approach seems to be definitely different. There is seen their modesty about the achievement of the master's degree and the awareness of challenges concerning their vocational performance.

Hypothetical explanations

The comparison provokes reflection about the process of gaining maturity. The differences between Freshmen and Seniors show "improvement" in their opinion, and a kind of clarification and verification of their earlier thoughts due to their experiencing of the world around. The enthusiastic apotheosis has given way to humility towards the professional competencies. However, this study is not a longitudinal one and this reflection shows a mere possibility of interpretation.

Conceptions of the profession

Similarities between Freshmen and Senior Students' Conceptions of the Profession

The vision of clinical psychologist ('pure' profession) is still the same, although Seniors use it in a different way. On the one hand they feel the esteem of clinical work and are full of respect to such a work. On the other most of them do not want to do this kind of job and see themselves as 'less important' psychologists who do not bear such an extent of responsibility. One could say that Freshmen expected to be clinical psychologists, but their 5-year studies have shown they were mistaken.

Differences between Freshmen and Senior Students' Conceptions of Profession

The opposition of 'curing' vs. 'management' that is not present in the Freshmen's conceptions, is very clearly stated by the Seniors.

Freshmen understand the profession according to the common standards and identify it as a work of clinical psychologist. (a *scientist or a doctor who is sitting, listening to, curing and earning big money*). Seniors oppose this visions of profession with those which are focused on less responsibility. They link them to curing very rarely, commonly speaking of organisational work

and management. The professional identification of Seniors is defined mostly in negative terms (*not a clinical psychologist*).

Hypothetical explanations

The studies changed the interviewees' thinking of the profession. Their professional identification (organisational psychologist, manager) that was developing for 5 years, becomes explicitly articulated in opposition to the clinical way of doing the psychologist's work. In a pair: 'curing'- 'management', 'management' finally wins.

The social role of professionals

Similarities between Freshmen and Senior Students' Conceptions of the Social Role of Professionals

The perception of the social role of 'clinical psychologist' is the same in the Freshmen's and in the Seniors' group. It is risky to say (as it was not a longitudinal study) that the studies have not changed this 'popular' vision that was generated at the beginning. However, the image of a final 'product' of studies has definitely changed. It is no longer the psychologist who is doing clinical work. Seniors know (and accordingly to this they describe the social role of professionals) that psychologist could be somebody else and plays his/her role in many various ways depending on the area in which it is possible for him/her to act.

Differences between Freshmen and Senior Students' Conceptions of the Social Role of Professionals

Freshmen describe this role on the basis of a holistic popular vision, or a stereotype of the psychologist who is wiser than the others and leads them to better results in their lives. Such a conception and understanding of the clinical psychologist is familiar in the Freshmen's views.

Seniors focus on particular aspects of the social role of professionals. They emphasise those which are directly connected to the area of psychologists' action (performance) and their 'professional space'. It is clearly stated in the interviewees' descriptions of school psychologist, judicial experts, etc.

Most Seniors who have declared to be 'non clinical' psychologist, described the social role of professionals in opposition to the role of 'clinical psychologist' that was fully respectable but not played by themselves. The society should not expect from them to '*sit, listen, and cure*'. They see the social role of professionals in accordance with current demands of the labour market and describe it as an adaptive attitude toward difficult reality of a lack of work, and see it in a range of professional possibilities (educational role, therapy that responds to the changing social needs, etc.).

Hypothetical explanations

The perception of the social role of professionals has changed radically. In the light of the comparative analysis we might say that the experiences and influences during the 5 years of studies are the basis of change. The professional identification is a key meaning here. It is played on a continuum between the clinical and – broadly speaking – managerial work, which follows the distinction between the roles of "helping" vs. "manipulating" people.

Moral and societal responsibility

Similarities between Freshmen and Senior Students' Conceptions of the Social Role of Professionals

'Primum non nocere' as a moral obligation of Freshmen and Seniors

Uncertainty due to the results of prospective professional performance

Differences between Freshmen and Senior Students' Conceptions of the Social Role of Professionals

There are two differentiating approaches to the 'moral obligations':

The first one refers to Seniors, who think of a need to act in opposition to stereotyping that close the vision of professionalism in a conception of all-knowing helper. This kind of conception does not exist in the Freshmen's group.

The interviewees rooted their understanding in the context of the principle *Primum non nocere*. Freshmen know it as a common 'golden rule' that is seemingly taken on from other registers (rhetoric of medical sciences). Seniors talking of a 'primum...' principle treat it as a basis of justifying the declared professional identification. Most of them explain why they would never be 'clinical psychologists'. Thus they argue their self-creating decisions, e.g.: *'yes, as an organisational psychologist I would never do harm to anybody'*.

The dilemmas of Freshmen differ from the ones of Seniors' due to the latter ones' concentration on moral responsibilities concerning their professional roles. Seniors seem to be basing their approaches on their experience. Everything that they thought of the dilemma referring to the consequences of their prospective activities was grounded in the fears that were anticipated from a very close experiential perspective.

Freshmen talked of dilemmas in a big disperse of topics. They anticipated them in a holistic way, basing on the wide social context. They did not feel them so clearly as the Seniors did.

Hypothetical explanations

Freshmen's inclination to the acceptance of the 'clinical' role of psychologist appears as subject to change. They come to the university with a disposition that (if we may assume it in this study) transforms itself during the 5 years of studies, and disappears at the end of them, yielding place for more secure orientations. Seniors seem to be conscious of such a state shift, including the opposition to the stereotyping of their profession in the moral obligations.

The dilemmas discover a distance that Seniors keep to their prospective professional activities. They look at them as fully recognised challenges or well-known and adequately anticipated tasks concerning their job. Thus, they are concentrated on the foreboded fears and their topics are not dispersed (each conception concerns the consequences of professional action that are felt like their own narratives). The experiences obtained during the university studies are clearly visible in the material.

Freshmen notice the dilemma in a wider perspective, seemingly due to the lack of their personal, integrated system of reference of psychological issues that is still under construction. This would be a reason why they refer their thinking of the dilemma to the well-completed systems, e.g.: common wisdom.

Discussion

In the light of the comparison we may say that the interviewees 'became mature' (in a professional meaning). One could say they grew up accordingly to the textbook's models, changing the approaches to the issues, or topics of talk. This looks like a process of achieving maturity (step by step perhaps), in which the students changed their understanding of reality. They changed from a

very enthusiastic acceptance of the common imaginations to grasping the vision that is full of humility and secure distance arising from the experiences gained within and outside the university.

It is not perhaps original, but a very clear reflection stated at the end of the analysis: understanding professional identification determines the way of thinking in every domain. The identification by Freshmen is an apotheosis of a clinical version of psychologist's work. The Seniors' identification is expressed as negation of the 'clinical' one.

Political Science students: Visions of the Programme

Learning

Similarities between freshmen and senior students' conceptions of learning

The essential similarities within the results of the two groups of students refer to such conceptions of learning as acquisition, reconstruction and lifelong learning, which are the basic ways in which the interviewees conceptualize this phenomenon.

Both freshmen and senior students in political science strongly accentuate the social context of learning, especially the role of informal learning groups of peers taking part in discussions, sharing notes and other learning material. Though the interviewees describe both individual and social modes of learning experience, it seems that the latter is considerably more typical of political science students.

Both freshmen and senior students rarely describe strategies of rote learning. If they do so, they talk about them as enforced by examinations.

The students portray some strategies of resistance against institutional demands, such as: cheating in tests, using someone else's notes, bringing photocopied papers to classes without reading them, etc.

In general terms, forms of learning prevailing within both groups of political science students resemble natural life-world learning strategies, such as sharing personal views in discussion, consideration of current political problems, observations, etc. Such forms are often experienced by the students outside the institutional setting and arranged independently. Here, the role of free discussions and media coverages is of great importance.

Barely does learning involve acquiring methodological knowledge or practical skills. Exceptions here are self – presentation skills and techniques of influencing other people that seem mostly developed by the subjects as a 'by-product' of social experience within or outside the institutional setting.

Differences between freshmen and senior students' conceptions of learning

The basic difference between the two groups of students pertains to the proportion between *acquiring* and *reconstructing* knowledge as the most important types of learning experience.

Though within both groups learning as reconstruction surpasses acquisition of knowledge, the value of learning as knowledge acquisition diminishes in the course of studies. Conversely, there is an increasing significance of 'reconstructive' forms of learning.

A transmutation of the context in which learning experiences take place might be observed. The importance of 'natural' strategies of learning increases with the duration of the studies. Such strategies occur in a 'transcontextual' space of learning experience that crosses out the border between life-world and institutional contexts. Here, academic knowledge is reinterpreted in the light of media coverages and free discussions provided within peer groups; and conversely, pieces of information sourcing from the life-world context are used and transformed in the institutional one. This situation seems to invalidate the difference between common sense knowledge and academic knowledge as the contents of learning of political science.

Hypothetical explanations

Since social relations between the students are tightening during the studies, it might result in an increasing significance of learning as social experience.

It might be the insufficiency of 'grand' theoretical academic knowledge (contemporary theories of politics, philosophy of politics) in the study programme that results in employing common sense knowledge and media coverages as decidedly important contents of learning. By the same token, reconstructive learning strategies might be stimulated.

Reconstructive learning strategies as well as the shifting context of learning experience might occur as students' inventive response to the insufficiency ('incompleteness') of the academic offer in terms of its organizational, conceptual and material conditions.

Knowledge

Similarities between freshmen and senior students' conceptions of knowledge

The basic similarities between freshmen and senior students' conceptions of knowledge appear in respect of its mostly theoretical and factual nature. Herein the body of academic knowledge appears as internally divided between different social science disciplines and it does not construct integrated structure of generalized knowledge on politics.

The two groups of students seem to attribute great importance to the idea similar to Bacons' claim that *knowledge is power*. For the freshmen, 'power' of knowledge pertains to economic and political competitiveness, whereas senior students accentuate its function as a 'regular' tool for objective understanding of social reality, which – however – is expected to be commercialized in future work.

Differences between freshmen and senior students' conceptions of knowledge

Freshmen students valorize academic knowledge in terms of immediate commercial gains ("knowledge as capital"), whereas senior students, if they do so, accentuate its practical usefulness in a more indirect way, in a spectrum of possible future jobs.

Senior students complain about the insufficient amount of methodological and practical knowledge in the study programme, whereas freshmen students believe in indirect practical usefulness of theoretical and factual knowledge.

The bodies of descriptive and factual knowledge seem to be slightly disfavored by senior students whereas the freshmen emphasise a preparatory function of such forms of knowledge for further learning of more specialist issues linked with politics.

Senior students express the conception of comprehensive knowledge that does not occur within the group of freshmen students. However, as referring to loosely structured and miscellaneous pieces of information acquired during the studies, such a structure develops as a result of cumulating various portions of academic information, which is unequal to the humanistic idea of general knowledge.

Hypothetical explanations

Reflecting on the nature of their possible future job, senior students are not so optimistic in judging the pragmatic value of academic knowledge as the freshmen are. The 'vagueness' of future, visible in the group of seniors, might be the reason why they do not perceive of academic knowledge in strictly commercial terms and do not ascribe to it immediately practical functions as the freshmen do. Presumably, by the same token the seniors find the lack of practical knowledge within the study programme to be a fault.

The faith in the power of academic knowledge, with its primarily ideological nature, seems to be reinforced by the local discourse of elitism of political science and its representatives.

Competence

Similarities between freshmen and senior students' conceptions of students' competence

They focus on the following aspects:

Adaptive approach to the requirements of both the institution and the social environment (conformism and strategies of 'keeping up appearances');

Orientation towards maintaining close and profitable relationships within the peer group;

Intellectual abilities, erudition and self-presentation skills as components of students' competence.

Differences between freshmen and senior students' conceptions of students' competence

Only freshmen students include 'additional skills' (such as foreign languages and computeracy) among the concepts of students' competence.

Striving for a career is the concept of student's competence expressed by senior students only.

Hypothetical explanations

The general view of 'a good student' as a clever strategist, successfully shaping her/his public image and oriented towards maintaining profitable social relations in order to achieve her/his personal aims, resembles a vision of a Machiavellian politician that is publicized in a critical public debate on the Polish political scene. Still, the question remains whether our respondents model themselves on this vision.

Professional knowledge

Similarities between freshmen and senior students' conceptions of professional knowledge

Both groups of students accentuate the double facet of professional knowledge constituted by its descriptive and procedural nature.

Both groups emphasize the practical value of professional knowledge; however, senior students provide for its broader explanation. They attribute to it an instrumental function of 'objective' understanding and developing strategies for successful acting within the world of policy.

Differences between freshmen and senior students' conceptions of professional knowledge

Conceptions of professional knowledge held by senior students in political science seem more mature and detailed.

Senior students accentuate the value of life-world knowledge for professional capability of a political scientist, which exceeds the freshmen's views.

Hypothetical explanations

The faith in the power of professional comprehensive knowledge seems to be reinforced by the local (institutional) discourse of elitism of political science and its representatives.

Considerably strong focus on life-world knowledge represented by senior students might reflect the affirmation of its value within the institution. It seems tempting to suggest that world-life knowledge fills the lack caused by the insufficiency of theory in the curricula.

Professional competence

Similarities between conceptions of professional competence held by freshmen and senior students in political science

Students in both groups talk about their future professional competencies in terms of its intellectual, cognitive and moral aspects. Still, there are particular differences that appear within these conceptions.

Professional competence is regarded rather as a competency for understanding political reality than for acting within it.

In both groups 'being objective' in analysis and judgments seems to be the most important hallmark of a professional political scientist.

Professional competence barely involves specialist knowledge and skills.

Social competence mostly refers to abilities to create a public image and to influence people.

Differences between conceptions of professional competence held by freshmen and senior students

Regarding the conception of intellectual competence, freshmen students describe it in general terms of formal mental abilities, whereas senior students ascribe to it a considerably more specific content such as: erudition, understanding political reality, keeping intellectual distance, and 'mind-openness'.

Freshmen students describe the moral facet of professional competence as relativistic, whereas senior students put accent on universal principles of objectivity and impartiality in judgments and analysis.

Possible explanations

What keeps the visions of the two groups of students relatively coherent, regardless the differences described above, is the vision of professional competence as 'wisdom'. Herein the portrait of a competent professional resembles the archetypical figure of a sage, who - embodying 'general' wisdom - reveals the truth (the claim of objectivity), impresses people by her/his charisma (the claim of creating public image and influencing people), never engages himself in action (the claim of impartiality), and is never particular about minor specialist issues (the claim of generality of competence). Such a vision is strongly elitist and exclusive. One might suggest that it is an institutional locus that lies behind this vision (*home-spun conservatism?*).

Conceptions of the profession

Similarities within conceptions of the profession held by the freshmen and the senior students

Both groups of students seem to share the belief in a professional type of education in political science. This confidence is being partially undermined in the group of senior students when they are talking about their personal future plans. Here some of them express the opinion about a non-professional nature of education in political science that could occur good-for-nothing on the job market.

Differences between the conceptions of profession held by freshmen and senior students

Senior students in political science present a broader view on the profession, envisaging it in the following dimensions: public mission, influencing people, a source of income, "non-profession".

Freshmen students present visions of a political scientist's profession narrowed to the space of possible future occupations. Senior students, presenting a considerably broader perspective, pertain this vision to the questions of social responsibility for 'telling the truth to people', political consciousness, taking control over people, and private benefits (high social and economic status).

Possible explanations

Probably, there is an influence of the institutional discourse on developing senior students' views on the profession that is embedded in the perspective of social responsibility and political consciousness rather than in the vision of professional roles, as was the case with freshmen.

The social role of professionals

Similarities between the conceptions of the social role of professionals

Conceptions pertaining to the social role of professionals are basically similar within the two groups of students in the aspect of the elitist nature of competence and position, which enable political scientists to raise other people's consciousness and to influence their political activity..

Differences between the conceptions of the social role of the professionals

Freshmen students more often describe the social role of a political scientist in terms of her/his immediate political engagement than the seniors do. Senior students usually accentuate her/his position as a competent expert telling people the truth, influencing their political behaviors, and catalyzing peoples' political activities.

Senior students more often emphasize the public mission of professionals than freshmen students do. Anyhow, the mission does not equal to an immediate engagement in social changes.

Possible explanations

Relatively coherent visions of the social role of the professionals presented within both groups of students seem to be discursively constructed around the belief in the elitist nature of the profession (discourse of elitism, presumably with its roots in an ideological 'home-spun' conservatism).

The transition between acting and talking/understanding as forms of social activity of professionals seems to occur as an effect of the academic education of primarily verbal ('theoretical') nature that limits students' access to the world of social and political practice.

Moral and societal responsibilities of professionals

Similarities between the conceptions of the social role of professionals

In both groups of students, ideas on moral and societal responsibilities seem to be presented in the perspective of their elitist nature

Differences between the conceptions of the social role of professionals

Freshmen students present a strictly relativistic view on the moral aspects of the professional role as depending on the social position of a professional. The opinion expressed by senior students, though internally differentiated, often appeals to universal claims of objectivity, truth, and honesty.

Possible explanations

The shift from relativist to moderately universal perspective of moral responsibility between the two groups of students seems slightly unexpected. Here we could witness the process of developing students' moral competencies during their study, which might be linked to the strengthening of the elitist features of their professional identity. In the question of morality, such elitism seems to accentuate the ability of the professional to define what is really true, universal and valuable.

Discussion

In this part some remarks on the institutional culture as a medium of transition between education and the world of practice will be presented.

We might notice some *marginalisation of practice* in the curriculum (constructing students' beliefs that being a political scientist is about talking and understanding the political reality, rather than acting within it).

Academic culture of political science seems to construe a culture of 'simulated profession'. Although, in the light of the syllabi, a humanistic profile of the liberal programme is declared here, students seem to be continuously convinced by their teachers about professional nature of their education. This results in a kind of 'schizophrenic' view on future profession that is presented by senior students. When describing the nature of a political scientist's profession in general and hypothetical terms, they emphasize its professional nature, professional status of knowledge and competence. When talking about their own future plans, they reveal the non-professional nature of their education that does not enable them to occupy positions demanding advanced professional skills and knowledge.

Learning

Similarities between Freshmen and Senior Students' Conceptions of Learning

Learning is perceived as a process of constructing knowledge through solving practical problems (technological)

This broad conception includes the following aspects: acquisition of new theoretical knowledge and skills, acquisition of practical and procedural knowledge

Students stress the importance of cognitive independence as an attitude towards learning, as well as the importance of internal motivation

Both groups emphasise the necessity of constant development of their sense of technology as a main purpose of learning

Both groups of students have critical attitude with regard to unimportant theoretical knowledge (memorising of irrelevant information)

Learning as a process connected with institutional demands is perceived as a background of professional competence

Memorising as a way of learning seems to be important for both groups of students depending on the type of acquired knowledge (in case of electronics which is perceived as not "proper" ICT knowledge, memorising is seen as the only way of learning unimportant theoretical knowledge)

All conceptions of learning are perceived as subordinated to the professional pragmatism (efficiency in problem solving)

Certainty of students that lifelong learning is the necessity inscribed in the nature of their chosen profession

Peers as important community for creating learning environments

Differences between Freshmen and Senior Students' Conceptions of Learning

Seniors are able (and appreciate) to learn non-ICT knowledge such as management or negotiations whereas freshmen rather reject non-ICT knowledge as unimportant

Seniors can perceive the university as an important place for learning (interesting, useful knowledge learned from PhD students)

Seniors see the academic content as quite satisfactory with regard to their needs (laboratories, practical, procedural knowledge), whereas freshmen are critical towards the theoretical academic content (practice as the lacking aspect of their learning, in their opinion)

Possible interpretation

Strong hierarchy, and poor pedagogical skills of the staff (a glossary of one professor's jargon is inherited by subsequent generations of students) are in the opinion of the students the main reason of perceiving the university as a hostile environment for learning. The same can be an explanation of the strong tendency to horizontally (peer-group) oriented learning

ICT is part of the Faculty of Electronics and Telecommunication. The engineering culture of this faculty may lie behind the construction of the syllabus which – in the first two years of studies – is filled with hardware:knowledge that senior students find irrelevant.

The university presents itself as a friendly place for learning when its initially executed function of strong selection becomes weaker (students seem to be selected before they start to learn meaningful, professional knowledge)

Knowledge

Similarities between Freshmen and Senior Students' Conceptions of Knowledge

All conceptions are inherent in the practical domain of possible uses of information technology

Theoretical knowledge is perceived in two contexts according to the professional pragmatism: theory needed for ICT professionals vs. useless theory

The division theory vs. practise is bridged by the concept of "sense of technology" (basis to practical mastery - ability to combine both: theoretical and practical knowledge with practical goals)

The division: general ICT knowledge vs. specific knowledge is the foundation of the conviction about professional excellence

Differences between Freshmen and Senior Students' Conceptions of Knowledge

Seniors' perception of knowledge is broader due to the changed conceptions of ICT profession

Only seniors introduce the distinction new vs. old knowledge as a capital in the job market, although they are generally convinced about quick changes of the field of ICT knowledge.

Only seniors value knowledge according to its economical aspect, adopting an external point of view. Freshmens define knowledge by inherent nature of ICT.

Seniors are able to integrate management and negotiations into ICT knowledge

Possible interpretations:

Quick professional initiation is a basis of ICT students' economical attitude towards acquired knowledge. This orientation is also strongly supported by the academics emphasising the economical meaning of knowledge and the profession in general.

The practical demands (training for practical, procedural knowledge) are satisfied by the academic offer. Their quick professional initiation seems to be favourable in this respect

Students' competence

Similarities between Freshmen and Senior Students' Conceptions of Competence

Both groups emphasise the intellectual dimensions of students' competence (talents, general knowledge, natural ability) as a basis for their professional competence

Looking for balance between everyday life and professional engagement (or time spent in front of the computer) is the criterion of their social competence

Differences between Freshmen and Senior Students' Conceptions of Competence

It seems to be important to notice the strong concentration of senior students on institutional requirements. Freshmens were less oriented towards being "typical students" collecting good grades

Possible interpretation

The students seem to have a limited possibility of choice of specialisation. Selection into attractive specialisations is based on the grades obtained by students in the years of general training.

ICT Students: Vision of Professionalism

Professional knowledge

Similarities between Freshmen and Senior Students' Conceptions of Professional Knowledge

Both groups stress the importance of practical (procedural) knowledge as strongly related to the practical nature of the profession (solving problems)

University knowledge as a background of lifelong learning

Differences between Freshmen and Senior Students' Conceptions of Professional Knowledge

The differences in this field are identical with those described in the domain "knowledge" (probably because of the "early professionalism" of ICT students)

Possible interpretation:

Knowledge obtained at the university (possibly new) plays a role of capital (aims formulated as short term goals)

Content of knowledge is less important in comparison to professional competence (especially the "sense of technology" as constantly developing practical mastery)

Professional competence

Similarities between Freshmen and Senior Students' Conceptions of Professional Competence

Both groups are speaking about "sense of technology" and analytical thinking as crucial elements

"Sense of technology" guarantees effective action within the profession

Similarities between Freshmen and Senior Students' Conceptions of Professional Competence

Only freshmen localise competence in the domain of technology

Seniors' definition of professional competence is broader, more detailed and includes non-technological abilities such as negotiations with clients

Possible explanations:

The broader definition of competence may appear as a result of changes in the conceptions of the profession.

University education (education within specialisation) plays an important role in the redefinition of the basic concepts of competence

Conceptions of the Profession

Similarities between Freshmen and Senior Students' Conceptions of the Profession

Both groups identify the profession in the domain of practice

Differences between Freshmen and Senior Students' Conceptions of Professional Competence

Freshmen's definition of the profession is focused on the first level of ICT hierarchy. They are talking about their future profession in terms of craft with strong emphasis on the man-computer relation

Seniors are using the hierarchic concept of the profession (programmer, system designer, analyst) – the system of positions is strongly emphasised in their utterances

Only seniors use the structure of evaluation that puts ICT engineering over “keyboard jobs” of programme writing, which is clearly a result of the academic influence

Only senior students are able to think of the profession from the perspective of a working team

Possible interpretations

Freshmen's definitions of the profession are strongly marked by advanced computer users' point of view, whereas seniors' understanding of the profession is a result of university education and working experience already gained.

Social role of the Profession

Similarities between Freshmen and Senior Students' Conceptions of the Social Role of the Profession

Both groups of students are focused on independence of the ICT profession as well as its necessity in every domain of social life

The social role of ICT is formulated as “civilisational supervision”

There is a common tendency to combine the languages of mission and technology in their thinking of the social role

Differences between Freshmen and Senior Students' Conceptions of the Social Role of the Profession

Only freshmen see the negative aspects of their social role (ICT as a fraud). This perspective disappears in seniors' utterances.

Possible interpretation

The disappearance of the negative vision of the profession ("fraud") may be a result of strong socialisation into professional roles that ICT students undergo during the studies. However, that critical vision was marginal in Freshmen interviews anyway.

Societal responsibility

Similarities between Freshmen and Senior Students' Conceptions of Societal Responsibility

Both groups' perception of societal responsibilities is focused on the quality of their work

Differences between Freshmen and Senior Students' Conceptions of Societal Responsibility

Although the tendency not to see any particular responsibility is common for both groups of students, from the seniors' perspective it seems to be formulated a bit stronger as a conviction that "there is no responsibility of ICT professionals"

Possible interpretation

It is possible to understand this tendency as influenced by a common sense conviction of independence of the technological order.

Introduction

In the presentation of the comparative analysis of the Norwegian data it is important to notice that under section I – Visions of the programme – we will present results concerning the domains ‘Learning’ and ‘Competence’ (as students) and not concerning the domains ‘Knowledge’ and ‘Competence’ (as psychologists / political scientists / lawyers). The reason for this is that it is not possible from the interview transcripts to sort out sufficiently clearly the difference in what the students say about the knowledge in the programme and the knowledge they envisage they will need as practicing professionals. Only one aspect of the domain ‘Knowledge’ will be reported in section I: the students’ conceptions of the programme as ‘academic’ or ‘professional’.

Otherwise the domains ‘Knowledge’ and ‘Competence’ (as psychologists / political scientists / lawyers) are dealt with only under section II – Visions of the profession.

Psychology Students: Visions of the programme

Learning

Similarities between freshmen’s and seniors’ conceptions, processes and outcome of learning

Students within both groups see learning in higher education as a movement from memorising and rehearsing (experiences from high school) to the process of understanding. They refer to conceptions of learning such as acquisition of factual knowledge and prevailing theories and reconstruction of knowledge, including learning the practical “craft” of psychologists through role-play and apprenticeship. Most of the students acknowledge an integration of individual and collective processes, practical and theoretical approaches. Theories and factual knowledge are mostly learned through individual processes like listening to engaged lecturers, by individual reading and writing as well as getting feedback on assignments. Nevertheless, discussions in groups are seen as indispensable for enhancing the individual understanding and reflective learning.

The majority of students in both groups highlight learning in small groups providing room for practical training and negotiation of meaning in discussions. Passive learning situations – like lectures – are generally less popular. Some, however, prefer individual work to collective group processes. A minority additionally underlines that they learn best by taking notes from the lectures and reading the books.

Differences between freshmen’s and seniors’ conceptions, processes and outcome of learning

Most of the freshmen value acquisition of theoretical knowledge as such, while most of the seniors emphasise the reconstruction of theoretical knowledge applied to practical situations. The freshmen tend to think that completion of the programme and the certificate as a psychologist are sufficient

in order to become a good psychologist. The seniors declare that they need more practical training before they become full members of a professional group.

Despite the fact that the freshmen to some extent have experienced the introduction part of the study programme (starting with statistics and neuro-psychology), as meaningless for the practice of a psychologist, they accept the institutional priorities. The seniors are more critical about the structure of the programme. Some of them maintain that too much focus on mandatory courses and testing through frequent exams, lead to learning strategies favouring reproduction of factual knowledge more than reconstruction and active learning.

Possible explanations

Students' expectation about learning in higher education is that it requires rather sophisticated learning strategies. Now, qualifying for a specific profession as psychologists, theories must be learned in order to be able to transform them to future work. Hence, the conception of learning is on understanding rather than reproduction.

Learning psychology is located both in institutional and life-world situations. The first part of the programme is theoretical while the second part includes the practical work. The fact that freshmen seem to be less critical about the study programme, may be understood in light of their prospective expectations of getting sufficient practical training in the second part of the programme. Moreover, their answers may be coloured by their recent experiences from the previous "lonely" foundation level. They enjoy being members of the "selected" group of the professional programme where they are being taken care of. The seniors, who base their statements in retrospective experiences, are to some extent disappointed with parts of the study. There has all in all been too much reproduction of theories (especially in connection with exams) and too little reconstruction and application to life-world situations.

Knowledge (in the programme)

Similarities between freshmen's and seniors' conceptions of knowledge

Both groups see the programme as clearly academically oriented and not as a "professional school". The strong emphasis on research based theoretical knowledge dominates the programme. On the other hand, the practice in the second part of the study is experienced as professional oriented. Apart from a few exceptions, most of the students (especially underlined by the seniors) think there is totally too little practical training.

Students' competence

Similarities between freshmen's and seniors' conceptions of students' competence

A competent student is characterised by being hard-working and clever. Additionally, he/she is genuinely interested in the discipline as well as in other people. He/she participates in discussions, is supportive and social. The category relational competence covers most of the students' conceptions including the will to establish, carry out and persist in inter-human relationships. Despite the fact that good grades are not seen as essential in order to get a job as a psychologist, competent students are eager to get fairly good exams' results.

Differences between freshmen's and seniors' conceptions of students' competence

There are no prevalent differences in content between the freshmen and the senior students concerning their conceptions of students' competence. Nevertheless, the senior students add some perspectives on being able to integrate critical/analytical thinking and self-reflection with a concern for others.

Possible explanations

The seniors' journey through higher education have shown that you will be awarded if you are well prepared for exams and do what the teachers expect them to do. Exams' results and formal and informal responses from teachers impact their identity as *academic* students. Simultaneously, encountering life-world situations and getting response from patients and tutors in practice, seem to be more crucial to their identity as *professional* students. In this respect the seniors envisage themselves in the transition from being student to becoming professional. For the freshmen the journey has just started and their imagination of the good student is strongly related to the feedback from peer students and significant teachers.

Psychology students: Visions of the profession

Professional knowledge

Similarities between freshmen and seniors' conception of professional knowledge

The conceptions of professional knowledge within both groups include theoretical and research based knowledge as well as practical and relational, communicative, normative and ethical knowledge. Knowledge of socio-cultural perspectives is underlined in both groups and there seems to be a tendency in our sample that quite a few of the students are skeptical about "pure" classical ideas. Psychologists of today must consider the manifold of psychological theories and include perspectives from other disciplines as well.

Differences between freshmen's and seniors' conceptions of professional knowledge

Even though all the students comprise theoretical, practical, relational, communicative and ethical knowledge in their conceptions of knowledge, the seniors have developed more sophisticated conceptions than the freshmen. Additionally, they accentuate the integration of life-world knowledge more comprehensively.

The freshmen emphasise the importance of learning the broad theoretical base of the discipline (in accordance with the programme's clear emphasis on this) while the seniors emphasise their personal and professional development (particularly linked to the role as a therapist), broadening their perspectives and not being too categorical in their judgements. Strengths and weaknesses in theories, experiments and models and the importance of applying theoretical knowledge to practical situations are expressed more unequivocally than by the freshmen.

While both freshmen and seniors include empathy, trust and respect in the concept of knowledge the senior students additionally include the need to be humble and honest.

Possible explanations

The rather consistent conceptions of professional knowledge may be due to the fact that the frame of reference concerning the students' conceptions of professional knowledge, is primarily linked to

clinical work throughout the whole study. On the other hand, the seniors' more sophisticated conceptions are likely a result of having been challenged by diverse and contradictory theoretical perspectives during their studies. The perspectives have become more internalised and nuanced – based on a cumulative knowledge and trans-contextual learning. Diverse practical training has probably stimulated to broadening their perspectives and the ability to present more operative knowledge. The supporting of situated, socio-cultural, constructivistic and system-oriented theories may mirror current global tendencies of cross- and interdisciplinary work. Socio-cultural theories are in the air.

Professional competence

Similarities between freshmen's and seniors' conceptions of professional competence

The majority of the students in both groups emphasise the ability to integrate theoretical and practice-based knowledge in a conception of professional competence. The most prevalent similarity between the two student groups, is the emphasis on relational competence, communicative skills and being able to understand the patients' situations. Both freshmen and seniors characterise "social competence" as empathy, trust and respect, but the seniors add the need to be humble and honest.

According to both groups of students there seems to be discrepancies between the students' view of important professional competence and what the students see as the expectations from the majority of the teachers at the institute. The strong emphasis on academic and scientific values is seen as qualifying for research rather than practical professional work.

Differences between freshmen's and seniors' conceptions of professional competence

The freshmen's conceptions of professional competence combine caring with theoretical knowledge. The seniors approve this as well, but add more detailed and elaborated descriptions of the relational competence. The focus on the individual patient as the chief client is also more specified. The seniors contextualise and exemplify the competence to a larger degree than the freshmen. Simultaneously, whereas the freshmen tend to believe that they will develop the competence to know *how* to help the patients, the seniors stress their role as "guides" helping other people to find their own solutions in life. Seniors respect the borders of their knowledge, feel a little uncertain about their own competencies, but admit the responsibility of becoming experts within the field of psychology.

Possible explanations

Even though the students see the study programme as primarily academic oriented, it seems as if the majority of the students in both groups stick to their plans of becoming practitioners. Hence, being able to act wisely in practical situations and create trustful relations with patients, are focused as crucial capabilities.

The slight differences between the two groups, may be due to the structure of the study programme. So far the freshmen have only been exposed to the institutional learning situations with a profound emphasis on the theoretical and conceptual knowledge and competence. The seniors have experienced learning situations in both institutional and life world settings. The fact that seniors seem to be more uncertain about their competence may also be a result of a growing awareness of the complexity of the field of psychology as experienced in the practice periods.

Conceptions of the profession

Similarities between freshmen's and seniors' conceptions of the profession

The majority of the students think psychologists have varied job opportunities where they can apply their personal trait and skills. The prevalent vision of a practitioner, is the clinical therapist treating patients. This image seems to be relatively unchangeable in both groups and it seems to be defined as the most “authentic” professional role in both groups.

Differences between freshmen's and seniors' conceptions of the profession

Even though the dominant picture of the clinical therapist is relatively constant, the seniors present less stereotypical visions of the therapist than the freshmen. Freshmen understand the profession more in accordance to common standards and preconceptions while the seniors refer to descriptions related to professional standards and concrete experiences.

There is a minority of the students in both groups who refer to the organisational psychologist as their role model. But this tendency is strongest among the freshmen. It is tempting to say that this may reflect an increasing acceptance of seeing the broadening of field of psychology – expanding into the sphere of business. The freshmen to a larger degree accept the wish to make some money out of work. Among the seniors this seems to be less conventional. One of the seniors who want to become an organizational psychologist claim that she has to fight against a dominant discourse among students and teachers; As a psychology you should work as a clinical therapist or as a researcher in the service of the patient or the public. It is not “comme il faut” wanting to earn a lot of money.

While the freshmen students are quite optimistic about future job situation, the seniors are more worried about the concrete job options.

Possible explanations

The fact that nearly all the students talk about the clinical therapist as the main role model, is most likely linked to common preconceptions, but also to the fact that clinical psychology is given much space in the education. Additionally, the most mentioned significant role models are the practitioners off-campus.

Conceptions of the social role of the profession

Similarities between freshmen's and seniors' conceptions of the social role of the profession

Conceptions pertaining to the social role of the professionals, the clinical therapist, are quite common (as the above description shows) among the students. They also regard psychologists as having a relatively high status in society. All the students see academic capital to some extent certifying their social status and power in society. Psychologists possess a unique knowledge and competence important to private and public needs.

The majority in both groups started to study psychology because they wanted an academic education, had an interest in working with people or in the subject as such. The prospect of secure and varied job opportunities was also an important motivation for most of the students. The most popular jobs are linked to clinical therapy working in teams with other psychologists and medical people. The least trendy jobs are in school psychology service.

Differences between freshmen's and seniors' conceptions of the social role of the profession

Seniors worry more than freshmen about the opportunity to get a job they really like. Apart from that, there are only minor differences between the two groups regarding their perceptions of the social role of psychologists. The seniors use a more elaborated vocabulary when talking about their future functions as psychologists. The seniors also underline that their power and status in society is relational.

Possible explanations

To get a job is crucial for the seniors. The majority of the senior students are mature with families and do not want to move to get a job. Hence, they believe they may start to work with other tasks than they prefer and feel prepared for. A freshman on the other hand can hang on to his/her dreams for some time and not worry about concrete job options yet.

Conceptions of the professionals' moral and societal responsibilities

Similarities between freshmen's and seniors' conceptions of the professionals' moral and societal responsibilities

Most of the students support a conception that as a psychologist you to some extent will be expected to have a stronger moral and ethical responsibility than common morality requires. Moral responsibility is seen as part of the professional competence, linked to the professional role and the professional ethics. They must never misuse the trust provided them by society. The responsibility is first and foremost connected to the institutionalised relationship between the clinical therapist and the individual patient. The emphasis is on the ethical aspects linked to the relational power and knowledge about the patients.

The prevailing image of a professional psychologist, in both groups, is the role of a clinical therapist - the patient is consequently their chief client. Additionally, they all seem to accept a kind of societal professional responsibility. The majority of the students think that they as academically trained psychologists get a kind of societal position provided with power. They see it as an important mission to "demystify" psychology in order to normalise psychological problems and equalise these problems with other medical diseases.

Differences between freshmen's and seniors' conceptions of the professionals' moral and societal responsibilities

There are no striking differences in the conceptions between the two groups. The emphasis is on the relational responsibility to the individual clients. However, the senior students take in more sophisticated reflections about the relations between the professional and the private role. They also bring in perspectives on the subtle balance between being an expert and showing humbleness. They stress both disciplinary limitations as well as professional competence. Although the freshmen students also refer to professional ethics, the seniors reveal a more intrinsic notion of professional membership, and the responsibility following being member of an academic community. They point at issues concerning the tension between individual autonomy and the autonomy of the professional community.

Possible explanations

The students tend to separate moral and societal responsibility. Moral responsibility is associated to ethics of interpersonal relationships and not to broader political issues. As long as the dominating professional role model is the clinical therapist, not surprisingly most of the students basically refer to this kind of moral responsibility.

While the freshmen refer to moral responsibility in rather common and general terms, the seniors present more detailed examples and rules defined by a professional community. This may be a result of personal development and “maturing” in the sense of having achieved broader perspectives. It may also be understood as an influence of increased interaction between studies and “real” life situations in the last part of the study programme. The seniors have encountered moral challenges and dilemmas they have to handle in professional life. Additionally they have discussed broader ethical issues in one of the last semesters in the study programme.

The societal responsibility is associated to the role as an intellectual in general. Many of the students emphasise that having gained science-based theoretical knowledge implies accountability to society and a duty to contribute to public debate on psychology as well as more general political issues. They also include perspectives on life-long learning in the sense that as a psychologist you are obliged to keep updated.

Discussion

Theoretical knowledge and practical wisdom as the base of professionalism

The professional programme of psychology has a relatively strong academic orientation and tradition. The curriculum emphasises psychology as a professional programme rooted in research based and scientific knowledge. The fact that the students do not encounter practice before after 2 _ years, impact the identity of the students. All the students in our sample underline the need of possessing fundamental theoretical and research-based knowledge. This intellectual capital is the hallmark of a *professional* psychology. It defines the crucial distinction between trustworthy authoritative knowledge and common sense knowledge. Both freshmen and seniors in our sample appreciate this kind of knowledge which is seen as fundamental for a good psychologist. Nevertheless, it is not sufficient regarding professional skills. A psychologist must be able to apply the theoretical knowledge to diverse and complex life-world situation. He/she must possess social and practical problem solving competence, must be good at building relations and showing empathy and humbleness. This is seen as a moral base of professional competence.

Learning trajectories - towards a notion of professional identity

In light of comparison between the two groups, it seems as if there have been no striking and *fundamental* changes in the conceptions of the professional role. However, there has been an elaboration of perspectives. The most noticeable differences are that the seniors expose a more mature and sophisticated understanding of the professional role. They reveal an increased notion of the complex tasks of a psychologist’s job that we do not find among the freshmen.

The different perceptions between the freshmen and seniors, may be related to the change of contexts in which learning take place. There has been a shift towards more natural learning strategies throughout the studies. The border between the life-world and the institutional context has been diminished. The reification of decontextualised theoretical knowledge has been supplemented with forms of “apprenticeship” that characterise participation in local activities.

Even though the majority of the students are rather confident with their time as students, quite a few criticise the structure of the programme, especially the separation between institutional teaching and practical training. When complaining about this, they often compare with other programmes they know about where practical training is better integrated in the programme. The students’ dissatisfaction may be seen in light of their preconceptions. The majority of the psychology students expected the study programme to be a professional education qualifying for a vocation as a clinical psychologist. A few of the seniors are dissatisfied by the vast domination of academic values. They believe that only peer students heading for a career within the academic

institution are content with this. One senior even suggest that there should have been two different courses in the educational programme; one qualifying for academic research and one qualifying for practical work.

Some of the senior students also comment upon the limited co-operation among teachers. External teachers, with close connection to practical professional life, are to some extent seen as more “credible” than the faculty teachers. Hence, learning situations linked to practice, are particularly welcomed. The students additionally get more feed back in practice on what they see as essential in order to become a good psychologist; namely the relational and communicative competence. They are more “seen” by clinical therapists off campus than the academic staff at the institution. This may explain why many of the students refer to professional role models outside the institution. In practice they have experienced to be treated as equal partners. This has meant a lot to the notion of a professional identity. Seeing higher education as a process of professional identity construction, indicates that the off-campus training to a greater extent impact the students future professional/vocational identities than the institutional teaching.

The students as reflective participants or pragmatic practitioners?

Even though most of the freshmen argue for a more clinical oriented introduction to the study, they seem to accept the disciplinary discourse stressing that mastery of conceptual structures and modes of arguments are necessary before introduction to practice. The majority of the freshmen are satisfied and believe that the education will help them to become good psychologists. The seniors are more skeptical. Especially they miss training in the role as a therapist. The absence of feed back (except from exams’ results) is also underlined. It is mainly in practice off campus and in connection with thesis work, they get meaningful personal feed back. Hence, the majority of the seniors argue for introducing practice at an earlier stage in the study programme.

But, the picture is of course more complex. At the same time as quite a few seniors claim that there has been too much stress on acquisition of theoretical, de-contextualised knowledge and too little integration of practical knowledge, others are perfectly content with the organisation of the study; theory first and then practical training.

Asking the students if they have tried to influence the study programme in one or another way, the majority answered that they have not. Most of them being part time workers and/or having families, they do not find time for more than reading and participating in all the mandatory activities. It is tempting to claim that the students expose a kind of pragmatic attitude and prefer to be active participants rather than disobedient students. They adjust to the programme. However, some of the seniors argue that they have tried to argue for alternatives, but that changes within the institution take time!

Political Science Students: Visions of the programme

Learning

Similarities between freshmen's and seniors' conceptions, processes and outcome of learning

The conceptions of learning as an individual as well as a collective or integrated process are represented among both the freshmen and the seniors. Learning is for most of the students seen as a process of getting hold of transmitted theoretical and abstract knowledge. However, learning is also to some extent related to application, in the meaning of being able to analyse political and societal issues by means of the disciplinary concepts, models and theories.

Students in both groups highlight learning in small groups. Learning through discussion is seen as a crucial learning activity.

The data show a significant correspondence between the freshmen and seniors in their expectations about the programme and what they are being offered.

Differences between freshmen's and seniors' conceptions, processes and outcome of learning

Learning through writing assignment is valued as very important among the seniors as well as the feedback they get on their drafts from peer students. Tutoring is another learning situation emphasised among the seniors. These activities are less mentioned among the freshmen.

The majority of the freshmen find the independent study culture in political science rather difficult to handle and ask for a closer relationship to the faculty members. On the contrary seniors express a greater satisfaction when it comes to contact with faculty members.

Writing a thesis is viewed as an in-depth learning process among the seniors where they underline the importance of the reconstruction of knowledge. This task involves for most of the seniors a closer relationship to one or more faculty members. The freshmen on the other hand underline their experiences of acquiring knowledge and the importance of learning what is on the reading lists.

Possible explanations

The distinction between an undergraduate and a graduate level of study becomes visible when comparing the two groups. While transmission of advanced knowledge is the main purpose of undergraduate study, reconstruction and production of researchbased knowledge is seen as the purpose of a graduate liberal programme.

Knowledge (in the programme)

Similarities between freshmen's and seniors' conceptions of knowledge

Both groups see the programme as academically oriented and a strong emphasis on research based theoretical knowledge dominates the programme.

Students' competence

Similarities between freshmen's and seniors' conceptions of students' competence

Both groups underline the importance of reading and to be prepared for the exams.

Differences between freshmen's and seniors' conceptions of students' competence

For the seniors competence is strongly related to the outcome of the exams. A student, who gets good grades, is goal oriented and follows the time schedule of the programme, is seen as a competent student. The freshmen more heavily underline that a competent student is enthusiastic, participates in discussions, and is able to take an overall perspective and link theory to practice. In other words it seems as seniors express a more instrumental perspective than the freshmen who present a more idealistic view.

Possible explanations

The seniors' journey through higher education have shown that you will be awarded if you are well prepared for exams, do the reading and write the assignments. The experiences related to exams and assignments and the grades they have gotten have impact on their identity as students. For the freshmen their journey have just started and their imagination of the good student is strongly related to their experiences meeting graduate students as teachers in the seminars. They know the subject content very well, they are good at explaining and they give good comments on the freshmen's presentations. In addition they also know the professors.

Political Science students: Visions of the profession

Professional knowledge

Similarities between freshmen's and seniors' conception of professional knowledge

Academic content knowledge, including general disciplinary knowledge, knowledge about the main theories, knowledge about political systems, structures and how they work, and factual knowledge, is what both freshmen and seniors conceptualise as important knowledge in order to become a professional. Both student groups refer to the disciplinary structure of the programme in order to explain this.

Analytical knowledge is the second main knowledge category emphasised by the students.

They all perceive political science as a strongly analytical and theoretical discipline dealing with political problems in general and less with human relationships. Practical knowledge is neither central in the freshmen's nor the seniors' conceptions. The freshmen however do explicitly underline the importance of practical examples and the link to societal issues.

Differences between freshmen's and seniors' conceptions of professional knowledge

For the freshmen, important knowledge to a large extent is defined through what is on the reading list. Seniors' expressions are more based on theoretical concepts and theoretical perspectives.

While analytical knowledge is related to more technical skills in the freshmen's conceptions, seniors link analytical knowledge more to a critical ability.

Possible explanations

Since political science is defined as a liberal programme the students expect it to be highly academically oriented. Both freshmen and seniors seem to accept this orientation.

Professional competence

Similarities between freshmen's and seniors' conceptions of professional competence

The majority of the students in both groups define professional competence as theoretical/conceptual competence and analytical competence. Analytical competence is explained as being able to look at a case from different angles and viewpoints. "Being objective" in analysis and judgments seems to be an important hallmark in the development of a professional political scientist. There are statements from students in both groups that underscore the importance of communicative skills. However, relational competence is not emphasised as important in order to become a good political scientist.

For both groups of students there are no significant discrepancies between the students' view of important professional competence and what they see as the profile of the programme.

Differences between freshmen's and seniors' conceptions of professional competence

There are no significant differences among the two student groups.

Possible explanations

Although some of the seniors make some more articulated description of professional competence than the freshmen, the descriptions from both groups are quite general. One explanation is that this is what traditionally characterise a liberal programme in contrast to a professional programme. The aim is not to produce specific skills and competences; rather the purpose is to offer a general academic "bildung". A senior expresses the general aspect of competence by arguing that "A political scientist is round as a ball" (PS 5f)

Conceptions of the profession

Similarities between freshmen's and seniors' conceptions of the profession

Most of the students share an understanding of the profession as open and not well defined. They give examples of possible jobs in different areas. For both groups jobs related to international politics are highly valued.

The students in both groups express their interest in a job which is exiting and fun and where they get the possibility to meet different people.

Differences between freshmen's and seniors' conceptions of the profession

While most of the freshmen want to work in international organisation, most of the seniors see public administration (especially the ministries) as a likely place for their future job.

Most of the seniors have fairly definite ideas about what kind of job they want (preferences) and what kind of work they hope to be doing (expectations). There is a fairly close resemblance between the political science students' subject matter interest and their desired professional future. Compared to the freshmen however, early idealism seems to fade over time. Seniors hope for a job where their analytical skills will be useful, but they are uncertain whether they will have the opportunity to use their content knowledge in their first job.

Possible explanations

To get a job is crucial for the seniors. They know by experiences from other students that you should be very satisfied if you get a job related to political science. A freshman on the other hand can hang on to her dreams for some time and not worry about what to become as a professional.

Conceptions of the social role of the profession

Similarities between freshmen's and seniors' conceptions of the social role of the profession

Both freshmen and seniors underline the diversity when it comes to the social role of the profession. However, most of the students give examples where the role of political scientist is seen as very important and having a high status in a modern society. Advanced academic knowledge is what makes up the social role.

Differences between freshmen's and seniors' conceptions of the social role of the profession

Most of the seniors believe that their status is increasing although they are not as visible as lawyers and economists as a professional group.

Possible explanation

For most of the students in political science the social role of the profession is highly linked to having a higher university degree within the broad category of social science.

Conceptions of the professionals' moral and societal responsibilities

Similarities between freshmen's and seniors' conceptions of the professionals' moral and societal responsibilities

Most of the freshmen and the seniors do not support a conception that a political scientist should be a person with a greater moral or ethical responsibility than common morality requires. They argue that this moral requirement is equal to all persons.

The students find it hard to associate with a specific professional ethics since they do not see themselves as belonging to any specific professional community. However, being "diplomatic and neutral" in order to handle ethical dilemmas in a professional way are key words among both student groups.

The majority of both groups underline the societal responsibility of a political scientist. Having gained the unique knowledge of political science and having learned the analytical method in order to rationally analyse social and political structures and systems, implies taking a societal responsibility.

Ethical and moral values of human relationship are not central in the political science programme. Neither the freshmen nor the seniors seem to miss this perspective.

Differences between freshmen's and seniors' conceptions of the professionals' moral and societal responsibilities

There are no striking differences in the conceptions between the two groups. However it seems as the freshmen more heavily underline the importance of using one's knowledge for the best of society –to make a difference.

Possible explanations

The disciplinary discourse underlines the importance of scientific knowledge and the division between political engagement and political theory where neutrality and objectivity is seen as the main "virtues" of a political scientist.

Discussion

Political science – the discipline as the main educational pillar

The educational programme of political science is placed within the Faculty of Social Sciences. The aim of the programme is to provide the student's development of an independent academic understanding and the capacity for systematic argumentation.

The curriculum emphasises Political science as an academic discipline and define scientific analysis as its core element. In addition the curriculum does not express any other expected profile of competence (jf. WP1-report 2002). As a liberal programme Political science rests upon a tradition emphasising a culture of independent study.

It seems as both freshmen and seniors accept the disciplinary discourse. A strong academic orientation together with a dedication to the existing knowledge structure make the main pillars of the social identity for the freshmen as well as the seniors (jf Yliojoki 2002).

The emphasis on intellectual independency may to some extent explain why the students are quite satisfied with the programme in order to become a professional. Whether you have the needed competence when finishing the programme, depends, according to the disciplinary culture, mostly on your own individual efforts. There are some critical statements about the missing contact with teachers. However since the students see this as "normal" within a liberal programme, they accept it.

Another aspect of the disciplinary discourse is the emphasis on neutrality and objectivity. This has been made explicit in the curriculum where a line is drawn between the politician's field of actions and the researcher's field of analysis. As stated above to give neutral statements are according to the students an important qualification in order to act as a professional. For many students, even among the seniors, neutrality is linked to being critical.

Idealistic freshmen and strategic seniors

While the freshmen express idealistic expectations and dreams about future professional work the seniors have developed a more realistic approach. This approach also includes being strategic in relation to career decisions. To some extent this difference in career prospective can be understood as natural since the student through an educational programme becomes more aware of the job possibilities and therefore establish a more realistic view. However it is worth to discuss whether this difference also can be the result of the educational discourse of the programme which on the one hand highly recommend scientific knowledge and on the other hand almost neglect ethical and moral questions.

A non defined profession – option or obstacle?

How students view their possibilities to get relevant jobs depend certainly on the general labour market. As mentioned above the educational programme does not prepare the students for any particular type of jobs although some of the students underline the heavy emphasis on the public sphere in the programme. However, it seems that for most of the students this "uncertainty" is valued as positive both among the freshmen and the seniors. It seems as students when they chose to study Political science are aware of the lack of a professional field and therefore are not surprise. They do not define it as an obstacle. Having a / getting a higher degree in social science from a university is seen as a security. It seems as they believe that having a higher academic degree, whatever subject, is an advantage.

Learning

Similarities between freshmen's and seniors' conceptions, processes and outcomes of learning.

The most dominant similarity between freshmen and senior law students when it comes to learning, is the emphasis both groups put on learning the '*Legal Method*'¹. This seems to be the major learning result which the freshmen are aiming for and which the seniors have been striving to achieve. This Method (sufficiently important to be written with a capital M) sums up the sort of meta-knowledge which partly includes a way of dealing with legal problems but also the way legal knowledge is organised. It has such a central position among the students that it functions almost as a 'mantra' for them.

Apart from this the majority of both groups of students explicitly and implicitly see learning as a process of *acquisition* and *storing* of factual knowledge about legal matters. Acquiring such knowledge – as well as the grip of the Method – is seen mainly as an individual process involving extensive (and intensive) *reading*.

However, a majority of the students favour group situations ('courses', colloquia etc) – with or without a teacher present – as good situations for learning, but these situations are considered too scarcely available in the programme. The core learning process is nevertheless reading and one of the senior students puts it very clearly like this: "The only thing that works is through my own reading. If I am not clever enough doing that, then it is my fault. No one else can help me read." (L2m)

Both groups complain about the distance between the students and the members of the faculty.

Differences between freshmen's and seniors' conceptions, processes and outcomes of learning.

The differences between students at the start and at the end of the Law programme are few and not very clear. The students seem to continue their rather individual trajectories of learning, although they along the way develop close social contacts with a limited number of peer students who also function as groups for collective learning.

The senior students have used the option to write and submit written assignments for comments / evaluation and see them as good training possibilities for exams as they require acquisition, organisation and presentation of legal knowledge – according to the way it is expected in the Method. However, some of them say they find the comments from the tutors less informative than they would like them to be.

From their position – at the end of the process of study – the seniors are able to comment on aspects they miss in the programme. This includes more extensive access to group learning situations with teachers and some form of practice included in the programme.

¹ The Method involves finding ways of formulating the problem, identifying the relevant sources of law and being able to express oneself culturally correctly about the solution – mainly in writing.

Knowledge (in the programme)

Similarities between freshmen's and seniors' conception of knowledge.

Both groups see the programme as clearly academically oriented and not as a 'professional school'. The focus is on learning the law, legal theory and the legal Method, and this is regarded as 'academic' knowledge. The programme is seen as a foundation course.

Competence (as a student).

Similarities between freshmen's and seniors' conception of competence as a student

Both groups agree that good students read a lot, sit in the reading hall for long hours and consume large amounts of text. This is one of the most unanimous characteristics within and across the two groups and is by most students expressed with emphasis.

Differences between freshmen's and seniors' conception of competence as a student

There are, however, some interesting differences. The freshmen also to a large extent use the word 'discipline' or 'self-discipline' to describe good students, while this word is very rarely used by the seniors. But while the freshmen seem to identify somewhat more with the image of the good student that they draw, the seniors in an amazing degree distance themselves from it. While describing the good student as someone who reads a lot, they at the same time say that they themselves do not do that. Consequently the image seems to prevail in the culture while there must be a number of individual students who (say) they do not themselves adhere to it in practice.

Law Students: Visions of the profession

Professional knowledge

Similarities between freshmen's and seniors' conceptions of professional knowledge

The students in both groups refer to four main categories of professional knowledge (using somewhat different terms) that they learn in their programmes:

Theoretical and factual academic knowledge

Procedural / methodological knowledge

Normative and ethical knowledge

Communicative knowledge / knowledge about human relations

Freshmen and seniors agree in their emphasis of academic content knowledge, procedural and methodological knowledge, and knowledge about human relations as the most important types of professional knowledge they will need. Both groups consider the procedural / methodological knowledge as the most important one, as also indicated under the domain of *learning*.

There is agreement that knowledge about communication and human relations are missing in the programme.

Differences between freshmen's and seniors' conceptions of professional knowledge

There are few – and not very significant – differences between the freshmen and seniors' view of knowledge. They refer to the same categories, but there are indications in the data that the Method becomes increasingly important towards the end of the programme as opposed to academic content knowledge. Seniors also have a stronger emphasis on understanding human relations in the practice of law than the freshmen express.

On the other hand the ethical knowledge – the sense of justice – is possibly considered more important among the freshmen.

Possible explanations

As the prospect of practising law comes closer, the “tools of the trade” seem to increase in importance. At the same time academic content knowledge has been integrated in a general understanding and is therefore taken more for granted than valued in itself. The increasing understanding of the impact of human relations on professional work as future lawyers also denotes a stronger orientation to the everyday aspects of working life. It may also be due to familiarisation (through studies, practice and media) with variations in human communication and behaviour and their impact on the practice of law.

Professional competence

Similarities between freshmen's and seniors' conceptions of professional competence

Generally speaking there is agreement between the two groups of students that the competence fostered in the programme is mainly related to methodological competence, logical competence and problem solving – that is to say competences related to the intellectual and academic aspects of practice.

On the other hand there is a similar agreement about other types of competence which are important for the practice of law, but which are *not* fostered in the programme (but will have to be learned when you start working). That is communicative and social competence and competence for ethical practice.

Differences between freshmen's and seniors' conceptions of professional competence

Neither in terms of competence are there many and important differences between the two groups of students. The freshmen may seem a little bit less specific about the competences needed to become a good lawyer. Senior students appear to place slightly more emphasis on methodological and communicative competence. They are alone in their emphasis of inborn abilities to become a good lawyer

Some of the seniors say they feel that the competence for critical thinking has not been well developed through the programme, although they consider this important for the practice of law. There is too little time and too much factual content to be covered in the programme and consequently aspects like critical thinking suffers.

Possible explanations

The increased awareness of human differences and inborn abilities as a factor of professional competence in the practice of law is noteworthy and might well be examined further.

Conceptions of the profession

Similarities between freshmen's and seniors' conceptions of the profession

Themes in the students' motivation for studying law may briefly be summarised as interest in the subject matter and family tradition. Both groups maintain that lawyers' work is related to an interesting field which covers a number of various specialisations. The profession also gives a chance to have a good income and a high status job.

Differences between freshmen's and seniors' conceptions of the profession

Senior students seem less focused than freshmen on income and status. Even though they are more concerned with the kind of specialisation they aim for, seniors acknowledge that they may have to work their way to achieve the kind of job they would prefer. It is also noteworthy that seniors show an increased concern with collegial relations in their future working environment.

Possible explanations

Some possible explanations for the change in focus, have been mentioned above. It may be added that senior students are closer to the job market and they have gained a clearer conception of their own competencies. The change may therefore be an adjustment in face of realities. This explanation does not seem to cover the data however. Another theme in the senior law student interviews is their emphasis on the human aspects of the profession. References to factors such as human differences, human relations, social skills, communicative abilities, personal qualifications indicate a change of focus that does not seem entirely based on a pragmatic view of future job possibilities. A possible hypothesis is that there has been a change in the students' values.

Conceptions of the social role of the profession

Similarities between freshmen's and seniors' conceptions of the social role of the profession

Law students see the lawyers' unique knowledge and competence as important to help and guide people through an intricate system. They have to help to interpret and explain the laws to other people. Lawyers also are regarded as a "steering tool" in society and as lawmakers and law regulators they have a civic and a societal responsibility.

Differences between freshmen's and seniors' conceptions of the social role of the profession

The differences in conceptions are rather a matter of degree or awareness of the social role, than differences of opinion.

Possible explanations

As several of the students have been motivated to study law through relatives and acquaintances, it is quite possible that they have been made aware of the social role of lawyers before entering their studies. However as they proceed through their studies, these are aspects they see and become committed to for themselves. Therefore their comments are more pronounced.

Conceptions of the moral and societal responsibility of the professionals

Similarities between freshmen's and seniors' conceptions of the moral and societal responsibility of the professionals

Freshmen law students' conceptions of the professionals' moral and societal responsibility are related to three aspects:

general ethical and moral responsibility i.e. they feel more obliged than others to behave decently and to respect law and order,

professional responsibility i.e. responsibility for clients and for not misusing expert knowledge or power,

civic and societal responsibility i.e. for instance to protect civic society and civil rights.

Senior students show the same sense of general ethical and moral responsibility and share the conception that lawyers have a higher obligation to act in accordance with the law than others do. This is part of being a member of the professional community of lawyers.

Differences between freshmen's and seniors' conceptions of the moral and societal responsibility of the professionals

The senior students appear to have a higher awareness of their moral responsibilities as future lawyers, to envisage the moral dilemmas they might face and to identify with the personal implications of societal responsibility

Discussion: how can these results be understood?

Probably the most interesting finding when it comes to the way freshmen and senior students of Law see learning, knowledge and competence, is the striking similarity in their views. From our data it is not possible to identify any major differences, only small nuances.

All through the programme goes the understanding of the study of law as a rather individualistic project where massive reading is the key element. This conception is established during the first year and keeps through the programme. Although Law is a study for entering a profession, it is strongly perceived as an academic programme with a focus on learning the academic theoretical and methodological knowledge and gain cognitive competence. Students at both levels maintain that there is little or no focus on social and communicative competence and on ethical knowledge.

It is difficult to explain this homogeneous view of these aspects of the programme. However, a contribution to understanding it may lie in seeing the Law programme as a generally homogeneous programme with small changes in type of knowledge, type of teaching and type of learning environment. For a professional programme it appears rather 'self-contained' within the framework of the Faculty, with no periods of practice involved and limited variation in the ways knowledge is made available to the students. Compared to our second professional programme – Psychology – this is a significant difference which might to some extent cater for some of the lack of differences in conceptions from freshmen to seniors.

To some extent this understanding may be supported by the fact that students – at both levels – who have chosen to engage in different work settings where Law is being practiced, seem to hold conceptions of these three aspects that differ somewhat from their peers who do not have such experiences. The mutual and fruitful interplay between the study of legal theory and method combined with practical work, where these aspects come into play together, is characterised by these students in very positive terms as situations for learning of a different kind.

The data from other parts of the interviews also show that many of the students have a family background where the study and practice of Law is prominent. This may also contribute to explaining why many students – even at an early stage of their studies – have a fair idea about the programme as well as the type of practice that it leads to.

Germany

Introduction

This comparative analysis of freshmen and senior students' responses has to be seen in the context of the previous wp1 and wp2_1 reports. In respect of these reports we pass on presenting the detailed statements. In the following we intend to summarise the empiric data from the interviews concerning the key domains.

Psychology Students: Visions of the Programme

Learning

Similarities between freshmen and senior students' conceptions of learning

Types of learning

There are different types of learners among both freshmen and senior students, on the one hand they represent a *programme centered mode* of learning and forms of *compulsory learning*, on the other they represent conceptions of *self-directed* and *constructive learning*. The students of both groups have good relationships with their peer-students as they like forms of *cooperative learning*, i.e. in learning groups, even if there are a few non-interactive learners.

Institutional support and the lack of feedback

A relative great number of freshmen and senior students are disappointed about the institutional support. These complaints include the low quality and availability of consulting services for students and the general missing of a personal efficiency control and feedback from the institution. "I don't know exactly what I am learning for – here's no concrete definition of knowledge. I need some feedback."

Content of learning: The acquisition of technical skills

Especially the group of the senior students consider the acquisition of technical skills (i.e. *computer skills* and *general work techniques*) as an important achievement while studying. The conception of learning implies the idea of becoming competent in operational procedures.

Differences between freshmen and senior students' conceptions of learning

Rewarding situations: Application of methodological basics

Many freshmen students miss the practical application of their subject-area, the seniors also complain about this problem. But at the same time they appreciate these opportunities which seem to enable them to understand *methodological application*. Thus the senior students experienced their Experimental Course and their students assistance job as the most rewarding situations during their studies, as they described that "there is much personal confrontation within the given tasks."

Rewarding situations: Learning on institutional demands

The senior students perceived their examination period as an extraordinary burden and therefore as a rewarding situation which includes involvement in doing self-dependent scientific work.

Possible explanations

It is difficult to find any conception of learning among the group of freshmen students. As the freshmen students are used to a predetermined pattern of learning activities they have problems to develop an attitude which is more adequate to the liberal structure of their studies. The partial reversal of this process can be derived from the seniors responses as they seem to uncouple from their previous schooltime-strategies of learning. Hence the acquisition of scientific skills is being considered in a closer relation with the ease of learning to work self-dependently. To be personally challenged with preparing, planning and realising a scientific presentation means for the senior students the most rewarding situation from a learning point of view. Given that many students worked as assistants their emphasis on scientific work gets more plausible as their practical access to empiric techniques was promoted precisely because of their jobs.

Besides there is a tendency of learning on institutional demands among the students: In contrast to the (more or less) free choice of designing the study courses, some senior students appreciated the binding character of the institutional demands which are represented by obligatory homework or the strict regulations of the examination. In these cases the students' performances aimed at a specific educational goal. While they accepted the institutional challenge they felt rewarded in matter of their learning activities afterwards. Regarding such a coherence the reversal of this process would mean that they perceive less rewarding situations from a learning point of view when they are rather unchallenged.

Knowledge

Similarities between freshmen and senior students' conceptions of knowledge

Both freshmen and senior students think that the offered didactics are not sufficient to become a good teacher. Especially the freshmen students miss a dilution of vocational images, whereas the recommendation of more practical knowledge is a common feature among both groups. The approach of knowledge is often seen as too academic. Hence theoretical knowledge appears to be a more and more secondary feature of university studies.

Differences between freshmen and senior students' conceptions of knowledge

The freshmen students place more emphasis on communicative aspects of knowledge which is founded on General Psychology and methodological basics. These two fields are seen as a basic necessity for approaching communicative processes. In contrast to the senior students many freshmen students appear to be fascinated by the "exploration of the human psyche". There is a congruency between the knowledge that is offered by the programme and the priorities of knowledge described by the respondents – the freshmen students agree with the knowledge which is offered by the courses.

Possible explanations

The freshmen's stage of acquiring knowledge is on a superficial level, oriented towards the aspects they were introduced to. In many cases the respondents mentioned that they share the opinion of their lecturers. As the freshmen students fail to give reference for their statements the responses remain in most cases on a level of description. Only few students argue on a level of elaboration and reflection related to issues on knowledge. Generally, the freshmen have not gained enough experience related to their programme to be able to reflect on the offered knowledge.

Students' Competence

Similarities between freshmen and senior students' conceptions of students' competence

Both freshmen and senior students focus on aspects of knowledge and methodological, personal and social competencies:

In order to be a good student one should be good at presentations. The matters of self-organisation in the framework of university-studies are considered as special challenges among the psychology students. The respondents are chiefly sceptical about gaining competence through the programme, for this reason they stress the importance of personal competence, which is meant by self-directed procedures. The freshmen students understand the programme as a guidance for decision making. Both groups give a more or less positive evaluation regarding the mediacy of methodological competence and different techniques of scientific work. Specialised knowledge and methodological competence are seen as important premises for professional acting and studying. The missing of practical application is seen as a general disadvantage of the programme. Thus, nearly all respondents have the recommendation of additional (and individual) commitment in common.

Differences between freshmen and senior students' conceptions of students' competence

The freshmen students rather try to fulfill the programme's expectations of being a good student. Otherwise, there are more freshmen than seniors who mentioned hedonistic aspects of student's life. The senior students mostly describe their personal improvement in aspects of operational skills and scientific work techniques, such as: textual work, doing term-papers, media based presentations of different issues. In many cases they gave evidence on the necessity of *facultative* or *institutional competence*. The senior students of psychology rather place emphasis on competence which is based upon methodological knowledge and permanent reflection.

Possible Explanations

Self-directive attitudes are represented by all students of psychology. These attributions of self-determination and participation sometimes seem to be close to a *laissez-faire attitude* among the students. Especially for the group of freshmen students the studies of psychology means also a certain lifestyle: dealing with new relationships and a new social environment appears to be an important issue. The senior students see their student's life in a greater connection with their future profession. Generally, they feel more or less able to manage the new challenges of work and private life. At the end of their studies they see the significance of personal competence as they experienced many difficulties relating to organisational affairs.

Psychology Students: Visions of Work

Professional Knowledge

Similarities between freshmen and senior students' conceptions of professional knowledge

There are many fields of knowledge mentioned by the psychology students. Both freshmen and senior students accentuated knowledge of interactive and communicative processes and of didactics. Methodological knowledge, i.e. statistics or experimental design, is another common feature among the respondents.

Differences between freshmen and senior students' conceptions of professional knowledge

While the senior student especially prioritise forms of *curricular knowledge*, *expertise*, and *didactical know how* the freshmen students rather place emphasis on issues of *General Psychology*

(which includes the subjects: learning, perception, thinking, memory emotion and motivation), *history, philosophy, child's development, psychological testing, clinical, medical, and physiological knowledge*. Another difference among the students' statements is the intention of some freshmen students to read the latest contributions of research. They associate with being a professional psychologist to have an enormous store of knowledge - as their inventory reaches from historical knowledge to clinical and medical knowledge. A typical statement thereof: "In principle, all branches of the programme". The freshmen students think that almost every field of psychology is of importance, whereas the senior students have a bordered conception of professional knowledge.

Possible Explanations

Almost 50 % of the senior students think about working in school as a psychology teacher, whereas the freshmen students are more open towards different directions of occupation. As a preliminary consequence thereof, the freshmen students appear to be more ambitious as they mentioned much more dimensions of knowledge compared to their older pendant. Maybe there is much more intellectual curiosity among the beginners, i.e. many of them toy with the idea of working in clinical psychology. According with a common trend of students' socialisation the freshmen students favour the socio-clinical application - which is supposed to be the key-discipline of their subject. Meanwhile, many students seem to cease being attracted by therapeutical issues. Based on their individual background the students might have understood the question in different ways as one might see in the case of the senior students: They rather argue from a teaching point of view even if they plan to do research or something else after their examination. Some of the graduates regret the absence of knowledge application within their studies as they are mainly interested in transforming (and applying) knowledge to the practise. These respondents who have to prove their competence as future teachers are often afraid that they will fail in their jobs due to the lack of practical teaching, methods and adequate situations. This feeling of discomfiture relates to the fact that the curriculum of psychology at university does not correspond to the curriculum at school.

Professional Competence

Similarities between freshmen and senior students' conceptions of professional competence

The contents of students' responses to professional competence do not differ from their responses to professional knowledge (see above). Operational and social competencies, especially the social skills, are seen as the most important competencies among the freshmen students. *Social competence* is also mentioned as an important feature among the senior students as many of them think that communicative processes are essentially within their future teaching. Furthermore, *didactical* and *methodological competence* is a common topic.

Differences between freshmen and senior students' conceptions of professional competence

The freshmen students of psychology rather place emphasis on social competence in the context of the envisaged clinical or social work. Methodological competence should provide these job activities. In difference to the freshmen students the seniors regard the improvement of scientific work techniques as a special item. Moreover the senior think that experiences outside the framework of university are often the most essentially ones.

Possible explanations

As a result of university studies the senior students have experienced different situations (e.g. degree dissertation) in which they had to prove or even to justify criterias such as validity. They internalised methodological functions, especially, in the context of scientific work experience. Usually, the courses of methodology are rather unfavoured particularly among the freshmen students and often it means a high barrier to them. But having practised scientific work techniques

once - in the sense of direct application - the students consider that methodological competence is of great importance. Based on the experience of numerous presentations the senior students transform the required social and communicative competencies (a good presenter has to implicate) into further professional procedures.

Conceptions of the Profession

Similarities within conceptions of profession held by freshmen and senior students

Both freshmen and senior students are interested in different occupational areas of psychology. The idea of becoming a teacher is often related to the need of financial safety. Another common feature among both groups is to work in the economic area, i.e. in personnel development, and to earn more money than others. A few students are very success-oriented and ambitious towards the envisaged professional career. There is a social dimension among the students who think about teaching: The respondents who are interested in teaching say that they want to promote children in matters of self-assurance and 'bildung' of personality.

Differences within conceptions of profession held by freshmen and senior students

There are more freshmen than senior students who think about becoming a therapist, generally to work in clinical psychology, or to work in the field of forensics. For this purpose the freshmen are open to do further qualification and additional studies. By the perspective of becoming a therapist the freshmen students refer to their conception of responsibility towards clients and their idea of societal change. A few of them appear to be *pleasure-oriented* as they do not want to overwork themselves. The senior students take more distance from occupational images of clinical psychology. Many of them have not decided yet, whether they should do an academic promotion or the school internship.

Possible explanations

Many senior students have changed their previous conceptions of profession. They have abandoned the idea of being involved in clinical or social psychology. It seems, that the graduates took much fancy on scientific work. This behaviour is mainly a result of their jobs as student's assistants where they learnt most of all in the context of their studies. Due to the different image of psychology the freshmen students seem to be more influenceable on new psychological issues.

Social Role of Professionals

Similarities between conceptions of the social role of professionals

The main summary of both freshmen and senior students' responses could be: Psychologists can be inserted in *universal functions*. Psychologists are supporting interactional processes, this may be, for instance, in fields of industry, social welfare, school, clinical or therapeutical contexts. There is even the view of psychology as a substitute for religion and the idea of a supplement for medical support to clients. In many cases the freshmen and seniors raised an objection and started their statement by "It depends on the single field of psychology".

Differences between conceptions of the social role of professionals

There are not many differences at all between freshmen and senior students conceptions of the social role of professionals. They have a different view on the scientific perspective. While some of the freshmen students rather represent an epistemological point of view - as they believe that the unexplored secrets of human beings are the eminent motives for having psychologists - the seniors think a bit different and in a more pragmatic way. From their point of view psychologists deal with the general improvement of living conditions. Some of the senior students mentioned single steps

and general tasks of psychological procedures, such as: describing, explaining and changing behaviour attitudes.

Possible Explanations

Psychology means to many freshmen students something mystical, whereas the seniors got rid of their previous “mystic-eyed conception” concerning the subject. As the programme has a scientific approach to human behaviour it promotes the demystification of psychology. The lecturers mostly depreciate issues of psychoanalysis, which is the most popular field to non-psychologists. From this point of view the freshmen’s attraction of dream-analysis and emotion is not surprising. The seniors of psychology appear to have a utilitarian attitude towards their subject. Maybe it is a question of personal fascination as one of the freshmen students reflects on the historical dimensions of psychology with regard to the secularization from religion, stating: “psychologists are modern priests.”

Moral and Societal Responsibilities of Professionals

Similarities between conceptions of moral and societal responsibilities of professionals

Freshmen and senior students place emphasis on the development of professional ethics. They are aware of being a role model to someone else, resp. to society. They feel responsible as well to clients as to pupils in school and even compare pupils with clients. Both groups expect to deal with different conflicts within their work life. On the one hand they mentioned the hierarchical level and general aspects of the relationship with the colleagues and the chiefs, on the other they think about the power structures between a teacher and the pupils or between a therapist and one or more clients. In order to do not abuse this power, they see the necessity to be well prepared. In general, the preparation is a matter of personal engagement. Moral conceptions are also being referred to the satisfaction of personal needs. Freshmen and senior students want to have a safe job and pleasure by the work.

Differences between conceptions of moral and societal responsibilities of professionals

In contrast to the seniors the freshmen students mentioned more frequent the will “to change something”. The reference towards societal commitment is a greater feature among the freshmen, but the phenomena of moral and societal responsibility are mirrored in the mission of education and *bildung* among the group of senior students. Furthermore they expect to be prepared for this responsibilities by further experiences outside the framework of university. They mainly mentioned the term of self-reflection as the most important exercise they can do.

Possible Explanations

The respondents refer their statements to the frame of personal references. From this point of view, the senior students attend on aspects of power structures and on the *bildung* project in school. In contrast to the freshmen students they seem to be less distanced to their occupational area, whereas the freshmen have more space for general reflection on society. Generally, they are more fascinated by questions of human behaviour.

Discussion

The psychology students’ journey through higher education appears to be a tightrope walk between no man’s land and manifold. Due to their experiences of the programme’s deficits and the low economic conditions of the faculty they have to cope with many crises while studying. They have problems to find a professional identification as they mostly do not plan to become a psychology

teacher. It is a great challenge to find a personal niche of professional work. Most of the students feel pressure on this question, so they look for further qualification unless they decide against teaching. As their future plans are often in abeyance they struggle in the beginning of the main study period with resignation. The first crisis might be the insight of departing from forms of application as for instance clinical psychology. These students who manage this dilemma know that they have to invest additional strengths, due to the fact that the curriculum is almost different to the contents of the programme. Either they find application in research, in additional studies, or in teaching. More than half of the senior students regard their academic education as a qualification for work life. The extraordinary conception self-dependent learning among both freshmen and senior students appears into the light of the performance society.

Political science students: Visions of the programme

Learning

Similarities between freshmen and senior students' conceptions of learning

Both freshmen and senior students regard their programme quite effective on the whole. This implies the supply of sufficient resources and an intact infrastructure for students' learning activities.

Programme-centered and literature-based learning

Especially the freshmen students appreciate the utilization of recommended literature from their lecturers - in doing so, their learning efforts are mainly targeted on the seminar-index. This *programme-centered mode* of learning might correspond with the senior students' conception of the term of self-discipline. It is important for them to be well-prepared and as studious 'as desired' by the lecturers. Besides a suppositional *learning-on-demand-conception* there are a few members of both groups who understand the programme's contents as the basic premise for individual and supplementary studies. Though the understanding of learning as a *transitional process* is not very common overall. The absence of personal feedback, especially from consulting services or academic advisors, is expressed as a common phenomenon among both freshmen and senior students. Consequently, the students of political sciences rather focus on non-interactive but independent learning strategies. In other words: Learning is being seen as an individual process.

The partial negligence of the interactive mode of learning during the studies is recognised within an exemplary (retrospective) statement from a female senior student: After presenting her diploma thesis in front of the colloquium she realised that she had missed the point, thus she looked for a better issue. Based on this single event she interpreted the constructive feedback as the most rewarding situation during her studies.

Content of learning: The acquisition of analytical basics

In the cross-section most of the students focus on the acquisition of analytical basics and specialised knowledge. Hence, textual understanding, hermeneutics and methodological skills are seen as important scientific instruments.

Motivation and aims of learning (-activities)

The *extrinsic* achievement motivation: In both groups the purpose of learning is often superficially described as the achievement of a certification or a certain degree (*credit-learners*). In other words: Individual performances are targeted on receiving rewards from the programme, resp. from

the teaching staff. Rewarding situations from a learning point of view are perceived within the feeling of success mostly after having passed an examination. Some students are motivated for additional studies in a foreign country which implies the idea of increasing their career-chances. The *intrinsic* achievement motivation: Another common motive of learning is to become independent of the familial context.

Differences between freshmen and senior students' conceptions of learning

In contrast to the freshmen students the senior students experienced different characteristics of methodological appliance that appears to be retroactive on their general understanding of learning. Their style of learning is mainly *holistic (top-down procedure)* compared to a more *serialistic (bottom-up procedure)* style from the freshmen students. The senior students rather appreciate learning activities outside the framework of university, as a consequence thereof they began to *construct* fields of knowledge and to *reflect on* the effects of learning. They appreciate interdisciplinary studies more than the freshmen do. Furthermore, the education and transformation of the personality as an aim of learning activities is more distinct among the seniors. Regarding the positive effects from the learning process some respondents are pointing out their increased ability to assert their position, e.g. in partnership, family, or workplace. Noticeably, the freshmen students often feel uncomfortable with the undefined learning demands.

Possible Explanations

As a general matter of socialisation the senior students are able to revert to a greater pool of different experiences: The highest emergence of *constructive learning* seems to be (temporally) located at the end of their studies when the students know how to connect theory to practical experiences. Especially, the involvement in several research projects is supportive for methodological application. Their learning efforts outside the framework of university are also caused by the living conditions: The differentiated experiences from side-jobs might enable the senior students to develop a more *critical reflection* on learning and knowledge and therefore to connect theoretical basics with practical problems. Freshmen are affected by learning strategies which are founded on their experiences from schooltime. As they are used to a *predetermined pattern* of learning activities they have problems to develop an attitude which is more adequate to the liberal structure of their studies. In order to cope with their deficits they attend to elaborate *metacognitive strategies* of learning to be able to reconstruct knowledge. The programme promotes the transfer of learning by using the principle of exemplification. Based on this intention the concrete topic of one course appears to be representative for general topics.

(Reference: Kolb, David A. (1981). *Learning Styles and Disciplinary Differences*. In: Chickering, A.W. and Associates, *The Modern American College*, San Francisco, Washington, London: Jossey-Baß Publishers, pp. 232-305.)

Knowledge

Similarities between freshmen and senior students' conceptions of knowledge

The most obvious similarity between freshmen and senior students' conception of knowledge is the preference for *theoretical* and *specialised* knowledge. These fields of knowledge serve the purpose of analysing and understanding structural conditions of societies. Most respondents say that the offers from the programme are of academic approaches. The students' evaluation of knowledge is more or less dependent on their perception of the lecturer and his or her didactics. There are freshmen and senior students who are guided by a general cognitive interest concerning the subject and the world, but there are also respondents of both groups who reduce their idea of studying as a means to a professional end.

Differences between freshmen and senior students' conceptions of knowledge

Absorbing and resorbing knowledge

Based on the conception of the freshmen students knowledge is not related to functional aspects of teaching and intermediation, but has to qualify for professional challenges, in a general sense. They mainly want to absorb knowledge, whereas senior students understand *knowledge mediacy* as one of the necessary tasks of political scientists. Some respondents value the propagation and utilization of specialised knowledge in contact with people outside the university, i.e. in daily life and in side jobs. Moreover, they are more interested in an active participation in discussions than freshmen students do.

Availability and understanding

Senior students are able to reconstruct previous learning-experiences. As the objects of learning are more networked during the years of studies there is an increased availability of knowledge. In contrast to the freshmen the senior students recognise the mutual proportions of the different fields of knowledge only at the end of their studies. Whereas they indicated a *sense-making* concerning the offered subject areas, the freshmen students are partly in doubt with.

Political application

A relative great number of freshmen students are dedicated to political work. Based on their active involvement in a party, these students differ in their previous (applicable) knowledge as well from their fellow students as from the majority of the senior students. They associate academic knowledge with problems of the political engagement and have a purposive attitude towards studies.

Possible explanations

The congruency between the knowledge that is offered by the programme and the freshmen students' priorities of knowledge is not surprising regarding their relative small previous knowledge. While freshmen represent the status of learners, the seniors identify more with their subject and with the future role of a political scientist. Many freshmen students are not sure about their choice of this subject yet, so they experimentalise within the framework of higher education in consideration of changing the field of study.

Students' Competence

Similarities between freshmen and senior students' conceptions of students' competence

There are many similar topics of students' competence expressed both from freshmen and from senior students:

- *Methodological competence* as a result of statistic courses, propaedeutics, accompanying research projects, and won from mental exercises in term-papers. They also mentioned the improved usage of literature and an advanced research techniques.

- *Personal competence* as a result of pressure of tests, the experience of self-responsibility and the must of handling with organisational affairs.
- *Specialised knowledge* as a consequence of dealing with theories e.g. in term-papers.
- *General knowledge* as an outcome from the five faculties of political sciences.
- *Linguistic skills* and improved formulation.
- The improvement of competence in *discussions* and to be able to be confronted with other opinions.

Differences between freshmen and senior students' conceptions of students' competence

The most evident difference between freshmen and senior students' specifications of students' competence can be discerned in the apparent enhancement of certain behaviour patterns, especially the enhancement of self-confidence. Senior students see their progression not only restricted on the professional or academic part of life, but mainly in respect of family affairs and private life. Another item of personal competence which the senior students rather prefer is the ability of stress-management. The ability of critical inquiring and analytical competence is more distinct among the senior students, such as the reflection on terminology, establishing new criteria and having a better textual understanding. Whereas the main idea of gaining intercultural competence by contact with foreign fellow students becomes apparent from a freshmen's statement. In this case the students focus on their future career outlook concerning the occupational area of diplomacy. Moreover, the acquisition of general knowledge is more distinct among the group of freshmen students.

Possible explanations

The answers concerning the students' competencies are in compliance with the liberal context of the study programme of political sciences. Some senior students are given credit for their studies, and additionally, for the gathered work experiences. It is almost a result of private and financial circumstances (i.e. family, partnership, work) that the respondents place emphasis on the enhancement of certain behavioural competencies. In the context of different crises and challenges they often had - and still have - to struggle for recognition in a high mutational period of life with changing duties and expectations. Contrarily, the freshmen students' period of life is more untroubled and rather characterised by experimentation and absorbing different kinds of knowledge. Otherwise, most seniors have already become manifest in scientific work styles and networked knowledge which is at least necessary to enable themselves to have a more critical attitude. They rather tend to an approach of distance towards their study programme as their general notions appear to be down-to-earth.

Political Science Students: Visions of Work

Professional Knowledge

Similarities between freshmen and senior students' conceptions of professional knowledge

For a successful acting within the subject-area of policy the respondents of both groups accentuate the significance of historical, theoretical, specialised, and current basic knowledge. Handling these fields of knowledge means to enable them to analyse and reflect on societal conditions. Both freshmen and senior students emphasise the basic necessity of having a theoretical background as

they mentioned the capability of *reflecting, analysing, structuring, conceptual thinking*, and of *being objective*, i.e. for scientific research, political advisory, or journalism. In both groups there are students who miss issues of real political problems within their study courses.

Differences between freshmen and senior students' conceptions of professional knowledge

The senior students rather focus on rhetoric skills and self-confidence in order to pass practical challenges in the framework of their envisaged occupation. In contrast to the freshmen students they seem to be more reflective and aware of the constitution and of the potentialities of political sciences as a subject in higher education. In connection with their idea of being highly responsible towards societal affairs some seniors criticise the retrospective character of their discipline. Therefore, the cause of their complaint is the absence of contemporary issues of politics within the studies. Placing emphasis on academic reflection on the one hand they think that preventative acting is only possible on the knowledge-basis of actual policy on the other.

Possible explanations

The remarkable concordance of freshmen's and seniors' conceptions of professional knowledge appears to be based on their common motivation for studying political sciences. In both cases the students predominantly understand their professional role in the context of societal involvement as they feel responsible in sense of the formation of the general collective. Overall, the contents of the programme correspond to the students' expectations of their work life, whereupon their professional fields of function are widespread and not well-defined.

Professional Competence

Similarities between freshmen and senior students' conceptions of professional competence

Theoretical / methodological competence

The respondents of both groups think that a competent political scientist has to master critical faculties and analytically-based competencies. These terms refer to a mental scope, i.e. reflection, funded argumentation, and analytical thinking.

Store of knowledge / knowledge management

Specialised and general knowledge are seen as an important pre-conditions for the development of a theoretical background. Freshmen and senior students appreciate professionals with a general motivation of refreshing their knowledge, which implies particularly historical and current knowledge.

Differences between freshmen and senior students' conceptions of professional competence

In difference to the freshmen students the seniors regard the improvement of scientific work techniques as a special item. This includes as well techniques of textual work, structuring, preparing presentations as critical and analytical competence. Another differing issue of professional competence among the seniors is their conception of interpersonal competence and the ability to assert oneself. Therefore, a good political scientist has to be self-confident and skilled in the linguistic register in connection with general knowledge.

Possible explanations

As a result of university studies the senior students have experienced different situations (e.g. degree dissertation) in which they had to prove or even to justify criterias such as validity. They internalised methodological function, especially, in the context of scientific work experience. Usually, the courses of methodology are rather unfavoured particularly among the freshmen

students and often it means a high barrier to them. But having practised scientific work techniques once - in the sense of direct application - the students consider that methodological competence is of great importance. Based on the experience of numerous presentations the senior students transform the required social and communicative competencies (a good presenter has to implicate) into further professional procedures.

Conceptions of Profession

Similarities within conceptions of profession held by freshmen and senior students

Both groups of students have not fixed an outstanding occupational area. While the majority of freshmen students seem to be open-minded concerning their job-activities the seniors have more concrete conceptions of their envisaged profession - but these don't appear to be in the long run. The students' expectations of becoming a political scientist are not linked to special financial incentives.

Differences between conceptions of profession held by freshmen and senior students

Instead of a broader glorification due to the performance of the past study years, the senior students strive for an as much realistic as possible assessment of their current job-situation. In other words: Before ending one period of life the students busy themselves with the challenges of professional life by stepping forward in the oncoming period of life. Regarding their future perspectives some of the senior students expressed concrete ideas concerning their activities. In two cases, the problem of integration and migration appears to be the content of the envisaged work - this is a comprehensible consequence of their personal migration experiences and also due to their activities while studying. In contrast to the freshmen the seniors rather intend to aspects of knowledge-mediacy as a matter of their profession. Many freshmen students envisage a professional career in political advisory or in journalism.

Possible explanations

Considering all statements, the motives, experiences, and ideas of the students are so manifold that further global categories can hardly be identified. Generally, it seems that the students agree with the common expectations from working life. In contrast to the (supposed) rebellious attitude of students from the late sixties and seventies, political or ideological characteristics among the interviewees cannot be found. Social values are neither challenged nor questioned: Societal and political commitment is proceeded inside the institutional framework of and in cooperation with society. The cliché of the antagonistic students has been modified to the cliché of students as active participators who come to an arrangement with society. Consequentially, many political science students prefer to work in the municipality, at university, in journalism, or in personnel development.

Social Role of Professionals

Similarities between conceptions of the social role of professionals

Both freshmen and senior students are concerned with the necessity of political and societal reflection as a major task which professional political scientists have to concentrate on. Thereby, the respondents think that power structures have to be analysed and that democratic ideals have to be enforced. Due to this undertaking political scientists have to take active part in shaping society by job performances in civil institutions. Based on specialised knowledge political scientists should play the role of experts who solve problems in community affairs. The students of both groups have a historical awareness in common as they deduce the inherent responsibilities of the subject (political science) especially from German history. Furthermore, they have the task of generating 'a

fair and pro-social way of life'. Also the community itself is seen as a reason for having political scientists.

Differences between conceptions of the social role of professionals

In contrast to the freshmen the seniors rather intend to proceeding knowledge-mediacy as a matter of their profession. In addition, the problem of migration and integration is a distinctive feature among some of the senior students. Generally, the senior students seem to attach more importance to perform in educational affairs. The ideas on the occupational area that the freshmen students look for is mostly indetermined yet, some of them envisage a professional career in political advisory or in journalism.

Possible explanations

The differences between freshmen and senior students' conceptions of the social role are double tracked. Regarding the two diverging tendencies among the freshmen on the one hand the freshmen are more and unspecificly inflamed with social commitment: They rather act like artists who experimentalise with life (after school days), this means that they want to learn something and further to be open-minded for changing their personal attitudes and eventually their studies. On the other hand the more determined freshmen who participate in a party for long-time or who have former work experiences are less stary-eyed concerning the social role of professionals. Like the senior students they deal with realistic potentialities of their envisaged profession.

Moral and Societal Responsibilities of Professionals

Similarities between conceptions of moral and societal responsibilities of professionals

Both freshmen and senior students express generic ideas of societal responsibilities and public commonwealth. There are some common features on universal ethics, such as: International understanding, tolerance or creating equal opportunity. Another analogy among both groups is the search for truth. Yet another debate which appears, is seen within the negotiation with foreign traditions and modern values. In order to prepare oneself for different moral and societal responsibilities the students mentioned their studies, the participation in discussions, to do voluntary jobs and to gain experience of life.

Differences between conceptions of moral and societal responsibilities of professionals

Freshmen students partly maintain an extreme point of view in the context of morality. They often connect ethics with being critical towards society. In some cases there are even tendencies of anarchism and non-capitalistic thinking. Moreover the freshmen present themselves as cosmopolitan and public spirited. The senior students also focuss on idealistic notions by referring to power-relations, current political topics and the general idea of promoting society. But their conceptions are more relativistic insofar as they think that responsibility and moral conflicts are almost of personal matter.

Possible explanations

Most of the political science students are characterized by an universal ethic understanding and more or less critical or philosophical attitudes. Many responses can be subsumed to the post-conventional level or to the stage of the social contract in accordance to Kohlbergs' Development of Morality. The freshmen students appear to be more extreme in their conceptions of moral and societal responsibility than the seniors do. Whereas the freshmen students appear to have great expectations of higher education, the seniors are often disenchanted with their experiences from university.

Discussion

The programme of political sciences comprises many different branches of study, while the students recognise its broad claims. The nature of this subject implies knowledge as well on a theoretical as on an abstract level the students have to deal with. Topics of current policy are almost invisible to them, which also means that they try hard to develop a conception of their occupational images (unless they are active within a party and envisage a political career). From the comparison of both groups one can conclude that the study is worth the trouble as soon as the senior students describe the constructive process of knowledge. This construction appears on the light of creating a professional identity as they experienced cognitive networks and knowledge transformation. Another evidence for the formation of a professional identification is the issue of knowledge mediacy among the senior students. These graduates understand their envisaged profession more as an individual vocation (or mission) than as a usual occupation. Regarding the universal applicability and the vague job perspectives of professional political scientists this phenomenon of vocation seems to be a special feat: In this context it is not astonishing that some of the graduates are even afraid of entering work life. Over the years the students are being challenged by the negotiation of a general social commitment and a realistic assessment on professionalism. One might ask the question: Where does this journey go to? Considering the different motivations and conceptions of the freshmen students, some of them seem to be mature and well prepared for the challenges to professionalism, some do not. The pragmatic attitudes towards professional life might as well bears a risk to society, even more than the rather starry-eyed conceptions of societal over-commitment.