

Freshmen's and Seniors' thoughts about Education, Professional identity and Work

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Abstract

This paper is part of a comparative European research project funded by the European Commission and concentrating on the mediation of university cultures and work cultures as experienced by students in liberal art and professional programmes. The programmes selected are psychology, political science and mechanical engineering. The focus of this particular paper is Swedish students' experiences of the relevance of the studies for the professional work, the level of intensity regarding the workload; the engagement in their studies; the feeling of being visible to the teachers and, finally, the extent to which they develop a professional identity. The results are based on thematic cross-sectional interview data gathered at the beginning and at the end of the programmes and subsequently subjected to qualitative analysis. 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. The political science students have a very vague notion of what political scientists do when they work. Engineering students still express doubts about their professional identity at the end of the programme and the relationship between the university studies and work is not self-evident.

Introduction

During the last decades the idea and role of higher education has been debated in Sweden and internationally. More precisely, the responsiveness of higher education to societal changes has been under scrutiny and also the feasibility of higher education as compared with demands from private enterprise. Institutions of higher education have responded to this discussion in several ways. The recruitment has increased to comprise about fifty per cent of a cohort (SOU 2001:13). It is a paradox that despite the increasing number of students in higher education, several important sectors such as engineering and health care are still facing a shortage of qualified professionals.

Previous research in processes and impact of higher education in a national as well as an international perspective has focussed on students' understanding of central concepts in areas such as chemistry, physics, economics, and biology. Within a phenomenographic perspective learning is conceived of as a change in students' ways of experiencing phenomena in the surrounding world. The research has shown that higher education only marginally impacts students' conceptions. For an overview of the research within this field (c.f. Marton, Dahlgren, Svensson and Säljö, 1977; Marton, Hounsell and Entwistle, 1997; Marton and Booth, 1997). There are also a number of doctoral theses applying the same perspective where the impact of professional programmes and the development of professional competence through working life experience have been focussed. (C.f. Sandberg, 1994; Bendz, 1995; Sjöström, 1995; Abrandt, 1997). These studies have, however, not included any national or international comparisons.

Since long, there is an ongoing discussion about the nature of theory and practice. There is a need for better understanding how students experience the transition between higher education and work-life, how teachers anticipate work-life demands and how senior professionals assess higher education against their own needs. Through the development of such a knowledge base our understanding of what theoretical issues needs to be practiced during the studies and what practical issues need to be theorised will hopefully increase.

Another issue that has been subject to intense discussions during the last decade is the function and significance of generic skills. The lack of stable forecasts about the nature of future tasks in working life and qualifications required to meet them has led to an increasing emphasis on knowledge and skills that will make students capable to develop beyond their formal training (Rolf, 1998; Barnett 1994, 1997). The focus on generic skills represents a more generalised shift towards what has been called "instrumental progressivism". This includes an emphasis on accessibility, transferable skills, competency formation, modularization, student profiling and the development of reflective practitioners (Boud and Symes 2000, p. 16).

Bowden and Marton (1998) introduce the dilemma faced in higher education when students are to be prepared for an unknown future by using a content that may be at least partly obsolete when the students enter working life as novices. They argue that the only possible solution to this dilemma is to try to develop the students' ability to consider the diverse nature of phenomena in the surrounding world by discerning different aspects and synthesising these in different ways. In such a way, students will be mentally prepared to take on new learning tasks and be ready to reconsider their earlier notions of phenomena. Barnett (1997) points to another aspect of preparation. Becoming professional includes engagement with a wider set of discourses, a responsibility that moves beyond the limits of a local professional-client transaction.

General purpose, design and methodology.

This study aims at describing the way freshmen and senior students experience their programme and envisage their potential work situation at the outset of their university education. It is important to underscore the fact that this is a cross sectional (and not a longitudinal) study. The topics and domains that the interview covered were the following: Introduction and questions concerning the reason for entering the programme, The teaching offered and the student's use of it, Learning, Knowledge, Competence, Participation, Expectations and motivation and Personal and moral dilemmas. The detailed results of the analyses and international comparisons have been reported elsewhere (EU-commission 2002, 2003a, 2003b) and will not be repeated here. Instead we will collate and integrate the findings and present an analytical comparison between the Swedish groups.

The analytical procedure applied in the project is multi-layered. We are interested not only in individual constructions of various aspects of education expressed by the students, but also in what shapes discernible academic cultures. We thus use phenomenographic data as a way towards understanding socially (institutionally) and culturally situated and constructed meanings. Marton & Booth (1997) have recently elaborated the phenomenographic perspective of learning. In this study, we build on their thoughts, but we have interpreted the phenomenographic approach freely. In phenomenographic studies in the context of learning, the structural aspect of the experience could also be described as the '*what*'-aspect of learning. What is it that the learner discerns from the content to be learned, what is it that is conceived figural? This makes up the *direct object of learning* for the learner. In our study, the direct object of learning is the content of psychology, political science and engineering and the knowledge and competence needed to become a psychologist, political scientist or engineer. The passage between individual and social constructions in data interpretation is secured by a procedure designed on the basis of the methodologies of discourse analysis (c.f. Gee 1999, Talja 1999). According to Fairclough, the concept of discourse has two meanings. Discourse could be defined as the use of language as a social practice that is both constituted

and constituting. Discourse is also a way of talking, rendering meaning to experiences from a certain perspective (Fairclough 1992, Fairclough 1995, cited in Winter Jørgensen & Philips 1998).

Selection of informants

Freshmen were defined as students in their second half of their first year programme (and who preferably had not studied at any other programmes at the university before this one) and seniors were defined as students in the last term. The sample of approximately 15 freshmen students and 10 seniors per programme was randomly selected from the population of students registered on the programme in that term. The sample is approximately a representative proportion of gender according to the composition of the population in each programme. Interviews were taped and subsequently transcribed. The duration of an interview varied between 45 and 90 minutes.

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 as 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 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. When asked about important professional skills for a political scientist 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 the professional role of a psychologist already from the outset of the programme, and this notion is also 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 diagnose correctly 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.

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 has for the psychology students.

Discussion

Tentative elements of discourses

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 tables 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.

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 'Bildung'-project.

Table 1. Political Science students' experiences of their study programme

	<i>Freshmen</i>	<i>Seniors</i>
Relevance	Low	Medium
Intensity	Low	High
Engagement	Medium	High
Visibility	Low	Medium
Professional identity	Low	Low

Psychology students

The discourse of the psychology programme 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 after 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.

Table 2. Psychology students' experiences of their study programme

	<i>Freshmen</i>	<i>Seniors</i>
Relevance	Medium	High
Intensity	Medium	High
Engagement	High	High
Visibility	High	High
Professional identity	Medium	High

The relationship to teachers is unclear, teachers play a withdrawn role as a 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 as persons. 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 components of a psychologist professional competence occurring as separate conceptions of the professional role of a psychologist, the Helper and the Social engineer.

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.

Table 3. Engineering students' experiences of their study programme

	<i>Freshmen</i>	<i>Seniors</i>
Relevance	Low	Medium
Intensity	High	Low
Engagement	Medium	Medium
Visibility	Low	Medium
Professional identity	Low	Medium

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 what 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 scientists do, a finding which is in line with previous research revealing that students' conceptions are only marginally impacted by higher education. (c.f. Marton, Dahlgren, Svensson and Säljö, 1977; Marton, Hounsell and Entwistle, 1997; Marton and Booth, 1997). 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.

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