Introduction

Aims of the project

The current report comprises the results of the first stage of research of the *JOURNEYMEN* project (so-called Work Package One, further on referred to as WP1). The aims of the whole project have been described in the following way:

To develop a conceptual framework for understanding learning strategies that students and novices apply in their trajectories within and across communities of practices (education and work life). Our intention is to better describe transitions from higher education to professional life in different European countries and to explain the travelling of students and new professionals within and across these sectors.

To study the trajectories of students and novices as embedded in cultural values and worldviews. A major focus will be on the cultural diversity of academic and work institutions in Europe.

To make a multilevel and critical analysis of the translations of unifying discourses, for example on life-long learning and globalisation, into local patterns of action and self-understanding. We want to understand how unifying policies and measures are adopted and transformed in the micropractices of students and young professionals.

The design of the project includes phenomenographic interviews with freshmen and senior students in three academic programmes in each of four European countries taking part in the project (Sweden, Norway, Germany and Poland). The results of phenomenographic analyses are then subject to broader interpretations in terms of critical discourse analysis and social hermeneutics, aimed at grasping cultural formations that shape the understanding of education and work. A more detailed description of methodology is included in a further part of the report. The first part of the research (WP1) concentrates on novice students (freshmen). The overall aims of WP1 is to identify the way freshmen in the three programmes selected (two of which are common to all four countries), conceive of their study programme, their envisaged job and the relationship between study and work. This aim will provide data for comparative analyses between different 'academic cultures' and countries. It is also crucial to identify aspects of the context of higher education significant for the way the students experience their studies and see their future work. The results of WP1 will provide for a starting point in the following work packages, where these results will be compared with those concerning senior students and novice workers, and where more detailed analysis of institutional and cultural contexts will be taken up.

Theoretical background

Higher Education, Work Life, and Society

The connection of higher education with the world of work can be considered in the context of contemporary process of knowledge production, as well as from

theoretical and ethical points of view. This study endows the report with several examples of how university and work change in our changing world. Thus, our major findings are focused on significant tendencies in the process of transformation that – as we noticed - re-shapes today's relationships between academic and work cultures. These tendencies are perceived on a macro-level due to the range of our international project and its main goal that refers to European and global perspectives.

From a sociological position there are two non-controversial tendencies concerning the knowledge production in higher education. The first identifies *heterogeneity* as an important characteristic of the contemporary landscape of science production. Knowledge is no longer produced only in university settings but is also increasingly found in many different *loci* like government laboratories, industries, etc. As authors of that concept (Gibbons at al.) predict, the universities will comprise only a small part of the knowledge producing sector (Godin & Gingras, 2000, p.273). The thesis of the diversification of the loci of scientific production is well grounded in the 1994-1996 studies (ibidem, p.274).

The other tendency, far from suggesting any decline, notes on the contrary the Enhanced role of the university and suggest to study the triple helix of the relationships between university, industry, and government (Etzkowitz et al., 2000). As Etzkowitz et al. note, in a knowledge-based economy, the university becomes a key element of the innovation system both as human capital provider and seedbed of new firms. Three institutional spheres (public, private and academic), that formerly operated at arms length in laissez faire societies, are increasingly interwoven with a spiral pattern of linkages emerging at various stages of the innovation and industrial policy-making process (ibidem, p.315).

Furthermore, authors distinguish four processes related to major changes in the production, exchange and use of knowledge which the triple helix model has identified:

1. internal transformation in each of the helices (e.g. lateral ties among companies through strategic alliances or an assumption of an economic development mission by universities),

2. the influence of one institutional sphere upon another in bringing about transformation, e.g. government in Sweden and US respectively revising rules of intellectual property ownership to transfer rights from individuals or government to the universities;

3. the creation of a new overlay of trilateral linkages, networks, and organisations among the three helices, serving to institutionalise and reproduce interface as well as stimulate organisational creativity and regional cohesiveness (e.g. Knowledge Circle in Amsterdam, Joint Venture Silicon Valley)

4. the recursive effect of these inter-institutional networks representing academia, industry and government. For the first of them, it has been to encourage the emergence of an *entrepreneurial culture* (paradigm) within academia (decentralisation, market competition, institutional pluralism, and the educational and research missions of all of institutions of higher learning). To be active, rather than merely formal innovation agents, universities must undergo a second academic revolution. It involves the incorporation of

> research as an academic mission, and secondly the assumption of an active role in economic development through extensions of both their research and teaching missions. In that context authors talk about the entrepreneurial university that includes mechanisms and emergent structures which can be tied to the four processes noted above (e.g. traditional academic tasks are redefined according to newly emerging functions). “Teaching is currently expanded by students testing their academic knowledge in ‘real world situations’ and acting as intermediaries between the university and other institutional spheres” (ibidem, p.316).

Etzkowitz et al. present characteristic “Triple helix” linkages in several countries, e.g. in Germany, where these changes brought many positive effects, although “the German story is one of a mixture of redefining the university system to be both more active in regional development while being required to be prepared to generate higher levels of income through commercialising its teaching and research activity”; larger companies like Daimler-Chrysler or Bertelsmann are planning to set up their own universities in order to avoid a long and difficult innovation process in the co-operation with university administrators (ibidem,p.323). Canadian studies by Godin and Gingras (Canada produces over 4% of knowledge in the world scale according to Science Citation Index) confirm the above tendencies (heterogeneity and “Triple helix” as an important characteristic of the contemporary landscape of science production), especially they are in accordance with the thesis of the key role played by the university. As the authors note, universities still are at the heart of the system, and all other actors rely heavily on their expertise (Godin, Gingras, 2000, p.274). The authors conclude that the diversification of research activities outside universities takes place in close relations with them and thus contributes to their development. The participation of the university sector in the total number of scientific papers published in Canada, despite a real diversification of loci of production, does not diminish in time. New actors in the system of scientific production produce a large proportion of their papers in collaboration with the universities (covering sometimes major costs of such a co-operation, see: *Education-Business Partnerships* in: Kubota, 1993). Model that is drawn by the authors embeds the university in the centre of knowledge-production structure. “Everything thus suggests that the study of the changing relationships between universities, industries and governments points towards stronger interactions between components of the system rather than toward the marginalisation of any one of the actors involved in the knowledge production system” (ibidem, p.277). Other analyses, however, provide us with different perspectives. One of the important factors is geography. Science-production process is – geographically – more regional than global. American studies on the participation of non-US universities in the development of new technologies and introduction of new products show the linkages that appear mostly between local institutions. Within the US, universities located near many of the firms in the sample tend to be cited by the company officials relatively often (study based on the analyses of citations by representatives of 70 firms from 7 major industries, about 5 academic researchers whose work in the 1970s and 1980s contributed most importantly to the firms’ new products and processes introduced in the 1980s.). In electronics and information processing, about 40% of the universities cited are in the same state as the firm making the citations (Mansfield & Lee, 2000, p.1049).

Outside the specific American environment, it is worth to note that regionalism in the overlapping spheres of HE and work influence seems to be one of the goals of the EU policy, also that concerning candidate countries (e.g. Poland). Foremost, it is assumed that universities will help to diminish the educational gap between the region and the country as a whole. Furthermore, the universities can manage to meet the dual task of a regional university: establishing a traditional academic reputation and actively participating in regional development process, mostly by a dialogue between a regional knowledge system and regional companies (Groth & Alvheim, 2001, p.5).

However, researchers analysing the role of universities in the development of the Baltic Sea region note that although universities should be the key actors in this dialogue, so are the "new polytechnics"[1] belonging to a non-academic education system built up in the 1990s. While the universities are funded largely by national grants, the polytechnics are funded to a high degree (43%) by local authorities (ibidem). Similarly, these processes are seen by an author writing about Portugal, where "new polytechnics" grow with governmental support as a political reaction to pauperisation and lack of educational chances that bring about social exclusion. Thus in the Baltic Sea Region, in Portugal, and other EU countries as well as in Poland where many similarities are discernible, plenty of new regional schools are established. They all have strong links to a local business and world of work, but the only some of them (very small percent) provide with R&D activities. The *status quo* of these schools and their graduates is lower than status of the university and university diploma [Swiatkiewicz, 1999, p.99].

This could be a reason why the university lives under pressure and stays ambiguous in its reactions to the outer world. It is argued further on in the following part of the text.

According to the pressure of the outer world, the university - on the one hand - gives way and subordinates to the industry, government, etc., and on the other, it keeps its tradition. It is shown in the following observations:

- European university had to offer two-stage structure of studies (BA degree + MA degree courses) in order to cut long-term studies and make it possible to prepare the professionals earlier. It happened due to the unique EU obligation (1992) also turning universities into institutions of LL (lifelong learning) activities. Professional, in-service training becomes more important than pre-service one. Basic rhetoric in these changes was taken from J.Delors' idea of learning societies that are constantly gaining experiences and using knowledge (J.Delors, 1996; Teichler and Kehm, 1996; Mrowka, 1999; Auleytner, 1998). Poland, as an EU candidate-country is recently very much involved in increasing the scholarisation indices, especially on the HE level. This country has obtained 40,8% scholarisation index value in 2000 (EU standard) mostly by the augmentation of the number of BA degree schools, of which the majority are private (*Edukacja*, 2001; Tadeusiewicz, 1997; Buchner-Jeziorska, ibidem, p.103).

[1] We suggest that American *multiuniversities* (well-organized, highly productive, and profit-oriented firms) might be compared with European new *polytechnics*, not rather with respect to their status (in US much higher than in Europe) but to their strong co-operation with local business and authorities (see: Kerr, 1993) .

- Universities redesigned their traditional concept of study organisation basing on the need to collaborate intensively with the workplaces. For example, some European universities (France, Hungary, and others) organise *Sandwich common courses* including management and communication subjects. The purpose is to strengthen the co-operation of the university and enterprise in high level engineering education. The work of *sandwich student* is organised by the university (educator) and industrial (engineer) tutors. They make recommendations as to the selection of the subjects, follow the educational and practical work, provide continuous technical consultation, and evaluate student's activities (Dunai, Hufnagl, Ivanyi, 1998).

- Many recent projects focus on the same value: university and work powerful synergies, e.g.: *Education & Business Partnerships* (Denmark, US) designed to expose university teachers to new technologies in the workplace, provide them with opportunities to interact with scientists and other technically trained professionals, and assist teachers in transferring work experiences into classrooms [Kubota, 1993]; *Workplace Literacy Program* (US), in which workers are learners, learners are workers, employers meet educators, and all of them have opportunities for advantages through the linkage they provide (Inkster R., 1994). Some projects, especially in the US, are described in the context of the labour unions' performance. Labour education programs in co-operation with the universities have existed in the US since 1960s. Recently, many universities have begun working with the unions within their respective states to establish labour advisory boards to assist and advise labour unions and their labour centres (Naylor, 1985).

- On the one hand, universities consent to the outer pressure and become servant organisations in order to submit the "practice-oriented" model of education created by the EU policy determined by labour market economy. On the other, as analysers note, in the inner organisation they keep traditional forms of performance that are known from the past (Teichler and Kehm, ibidem; Czezowski, 1994; Denek, 1998). OECD report (1993) presents HE institutions that „prefer loose connection between education and work, stating that preparation to more complicated professional tasks is possible to get in other ways (Teichler and Kehm, ibid., p. 66). In that context, the pressure concerning labour market appears futile. HE institutions still produce the mass of unemployed people. Ulrich Teichler suggests that if this pressure is inverted and labour market subordinates to the universities' goals, the consequences might be extremely good, e.g. universities could prepare innovative creators of new places of job. This seems more meaningful than self-employment issue (ibidem, p. 77).

Summarising the above tendencies and changes we could say that the everyday life of the university is turning into performance determined by the market economy rules. It can be shown by the following:

- educational activities are directed towards the preferred subjects,
- research activities are directed towards applied sciences,
- disproportion in the university funding, favouring the R&D universities,
- two kinds of professors: 1/ academics-businessmen earning much better than 2/ academics-theoreticians;

- increasing immediate influence of the outer environment on the aims and tasks of the university;
- venturing the use of the university equipment for academics' private advantages;
- support of the opportunism between university staff by encouraging to act on the "lesser-value" scientific subjects, as applied sciences are called (Denek, ibid. p.52-53; see: Mansfield and Lee... ibid., p.1057 – appeal to more intensive integration of theoretical and applied sciences)
- as it was mentioned above, universities become educational-R&D centres (*multi-universities)* that resemble well designed, profit-oriented enterprises (Kerr..., ibid.).

The concept of *academic capitalism* by Slaughter and Leslie explicitly expresses the issues mentioned above. By using this term, they define „the reality of the nascent environment of public research universities, an environment full of contradictions, in which faculty and professional staff expend their human capital stock increasingly in competitive situations. In these situations, university employees are employed simultaneously by the public sector and are increasingly autonomous from it. They are academics who act as capitalists from within the public sector; they are state-subsidised entrepreneurs (Slaughter & Leslie, 1997, p.9).

Business needs university mediation in the acquirement of knowledge that is necessary to build reasonable complexes (instead of the isolated bites of experimental, experienced knowledge). This need is increasing in our changing world.

The term *flexible specialisation* (connected with *post-fordism)* adequately expresses current striving of the business world to having staff that is easy-going in various adaptations aimed to produce changeable assortment applying to the consumers needs (Brown and Lauder 1991, after Denek, ibid. p.49). „Flexible worker performance is highly appreciated by the employers nowadays, as U.Teichler notices (Teichler and Kehm...op.cit.p.78) and as a local empirical study presents in Poland (*Raport Kartuzy*, 2000).

Business and government spheres are very much involved in a process of the organisational and educational changes in the universities. They are ready to pay a lot for these changes. This is spectacularly shown in the highly expensive projects, such as *Education & Business Partnerships* (Kubota...op.cit.), in which major funding is going to the universities from the private sector under governmental policy umbrella.

The HE and work linkages emphasise the individual "human component" of professional work by new ways of management and increasing consciousness of human and cultural resources of production (*corporation cultures*) (Mrowka.op.cit.Teichler and Kehm.op.cit, p.76; OECD, 1993 after: Denek.op.cit, p.49; Bauman, 2000).

The companies face the fact that education and training become essential components of business development and that the constant need for updating knowledge and skills of the workforce makes learning **at** or **near** the workplace a necessity (Geldermann, 1999). Thus the Lifelong Learning idea is plaited into both

university and work reality that is confirmed in the common projects on new forms of training near the workplace (ibidem).

Journeyman - the trainee in a university-taught profession - experiences reality in which the ability to keep employment in the changing conditions is increasingly a key qualification needed for life. There is no longer the job for a life, competition is valued increasingly day by day. Therefore lifelong learning activities, especially in strong linkages between HE and work, are highly appreciated (J.Delors...op.cit.p.19; Mrowka.op.cit.; Geldermann, op.cit.p.782).

Local cultures, policies, and organisations differentiate individual beliefs, values, and attitudes. A Polish *Journeyman* may be convinced that:

- individual success depends on high professional qualifications, good comprehensive education, initiative, enterprising and activity, solid and honest work (Swierzbowska-Kowalik, 1994);

- in the nearest future HE will be more meaningful in the common sense. Since 1990s, the economic motif (higher salaries) may be taken into consideration due to a positive correlation between university diploma and level of earnings (Buchner-Jeziorska, p.102);

- in a consequence of the university transformation turning it into a profit-oriented organisation (its "super- activity" that is not didactic), students are *forgotten* by professors who are involved in other aspects of university life (Wnuk-Lipinska, 1996).

The latter observation by Wnuk – Lipinska may refer to all *Journeymen* wandering among the worlds that are changing in accordance to the above tendencies. However, Teichler argues that the conditions and resources at the university are less indicative of students' achievement. More important role is played by students' attitudes and their individual activities during the studies. Furthermore, the connections between students' abilities developed through the university studies and expectations in a workplace are not automatically created. They emerge rather in a dynamic processes of passage into the employment sphere (Teichler and Kehm...op.cit, p.74).

Journeymen belongs to the socio-economic elite. Besides the processes that redesign traditional universities making them mass and professional organisations, the graduates originate mostly from high-level income families (Tunnermann, 1996; UNESCO Report, 1995; The World Bank Report, 1994). Most of the graduates are satisfied with their work, although plenty of them do the job that is strongly diverted from their professional qualifications (Teichler and Kehm...op.cit, p.75). Perhaps they have changed their expectations or system of the values. They might also start a process of making their workplace more valuable by enhancing and enriching the range of the activities that might lead to the changes of their importance.

Teichler argues that in the highly educated societies social divisions between workplaces become foggy. This is an opportunity to levelling the professional hierarchies and to real democratisation of social life (ibidem, p.77).

Summarising, we can say that the above tendencies are based upon the supposition that there is an ongoing progress from a rather compact and simple societal background in the past towards an enlightened future of diversified and interwoven knowledge production.

Beyond this pattern of progress being an immanent part of an a-theoretical modern, or sometimes even post-modern sociological argumentation as indicated above, it is questionable from a theoretical point of view whether once again by the description of the present societal changes the future form of existence of the best of our young generation is put at stake today. Mixing up empirical description with ethical argumentation implicitly raises the question whether higher education should prepare for an inclusive and pluralistic or an exclusive and one-dimensional mode of life. What seems to be put at stake today concerning the goals of higher education and the relationship between academia, politics and economy is not only an empirical question of the contemporary process of knowledge production. Beyond the question of how knowledge (especially professional knowledge) is actually being produced in our changing societies it is rather a question of what knowledge means, what kind of professional knowledge should be intended from a public welfare position as well as how the relationship of the "Triple-Helix" should be re-shaped according to what kind of principles. As Slaughter and Leslie noticed, professions are not fixed and static but always in a process of being socially constructed [1997, p.4]. Thus a critical approach raises and other questions follow, e.g.: How professional knowledge that is socially constructed becomes the basis of behavioural tendencies such as creation of the monopolies of practice which ensured selected groups of people prestige, power, high position, salaries, etc.? What seems to be at risk in the recent debate concerning the relationship of university and society from a philosophical understanding of *episteme* (science, knowledge) is namely the question whether science in its traditional and strict sense – the quest for truth and the pursuit of knowledge for the sake of its own – should be given up for the sake of the immediate necessities of social and economical welfare.

Harsh critical comments mostly come from those scholars who describe the ends and aims of universities from a philosophical point of view. They reject the judgement that universities are primarily focused on bringing benefit to society and economy by serving these purposes in research, tuition and studies. That is not completely wrong according to the critics, but it does not hit the mark because something distinguishing is missing: The quest for truth as the essential function of universities. What we label as the quest for truth today used to be called *theoria* in ancient Greece. Theoretical thought primarily aims at cognition and not at utility and effectiveness. This did not implicate that thoughts free from effectiveness orientation would as well be socially unworthy and unprofitable (see: Morkel, 2000, pp. 396-398). Basing on Aristotle's thesis that man was made to long for knowledge and to find his existence in the sciences, Kullmann defends theory orientation versus university reforms that mainly foot on utility and effectiveness efforts: The prevailing tendency of effectiveness management of study programs and science must again and again be opposed since pure longing for knowledge is a feature deeply rooted in human nature (Kullmann, 1996, p. 28).

Beyond these positions of decay and progress related to different understanding of knowledge, it depends at least on an ethical position whether the peculiarity on the one hand and relativity on the other concerning university, society and economy

are respected. In other words: none of these three components should ever be entirely cancelled. In-between the (post)modern pattern of progress and the traditional lamentation of decline, the remaking of one realm of human existence becomes obvious from a pluralistic point of view.

Higher education – institutional and curricular level

At the heart of every educational enterprise is a curriculum. Questions like what ought to be the aim and content of the education, how should we teach and collaborate with students, and how are we going to evaluate, constitute the substance of all education.

Curriculum as a field of study has not played a central role in the research literature on *higher* education in Europe. However, as higher education institutions have expanded and become more complex, the planning processes within these institutions, and therefore the management of the curriculum, have come to be seen as rather important. In contrast, the academic staff regards the curriculum in higher education as an internal, or even a private, matter.

There is a strong belief within the university community that the discipline is the main pillar in the curriculum construction. The disciplinary discourse is expressed by academics that argue that education should be an apprenticeship into powerful ways of knowing. Mastery of conceptual structures and modes of argument are emphasized. This discourse, as Ensor (2002:74) puts it rests on an assumption that

.. students enter the university with sets of experiences which are other than the knowledge forms into which they are to be inducted. In this respect, the disciplinary discourse rests upon explicit, vertical pedagogic relations between adepts and novices, with the rules of selection of curriculum content and of evaluation residing in the hands of academics.

Research into disciplinary cultures that underscore the disciplinary discourse has attracted interest in higher education studies for several years (see for instance Biglan 1973, Becher 1989, Ylijoki 2000). Imbedded in much of this research is a strong belief that it is the disciplines that drive the work of the faculty (Tierney 2001). As Becher and Trowler (2001) puts its “Despite the temporal shifts of character and their institutional and national diversity, we may appropriately conceive of disciplines as having recognizable identities and particular cultural attributes (p.44).

A second discourse is however also articulated. There are academics and external stakeholders arguing for a structuring of higher education that emphasizing employability. This is an important goal of the Bologna declaration (1999): “to create a European space for higher education in order to enhance the employability and mobility of citizens and to increase the international competitiveness of European higher education”. The general move is clearly towards a stronger attention to employment prospects and the acquisitions of core, or transversal, skills relevant to the labour market (Haug and Taugh 2001).

A third discourse may be characterized by a strong focus on students’ requirements and interests. The main pillar is not the discipline nor the labour marked but the self, the student. There is a strong belief in the students’ discretion

to select content and vertical relations between adepts and novices are explicitly avoided. The movement towards student-centred learning belongs within this discourse.

All these three discourses have strong supporters today from actors within the university as well as outside.

A curriculum approach that underlines the importance of contesting discourses indicates that shaping the curriculum is not a logical straightforward process. Rather, the curriculum is a social construction where the process of decision-making is seen as a socio-political and a cultural process. This approach, following Slaughter (2002), "allows us to consider organisational and cultural context as well as power and recourses when theorizing about curricula" (p.28). Although the restructuring discourse in higher education is usually not conducted in terms of its central influence on curricular formulation, these processes affect the shape of curricula (Slaughter 1997). Changes in the overall governing structure or in a single educational programme have important consequences for both the political and the professional questions that are being discussed.

In analysing the curriculum process one must acknowledge a number of the important issues that are at stake in these decisions. First, this process always, explicitly or implicitly, includes a debate over the overall aim of the educational programme. Is the aim, for instance, to educate good citizens for the public sphere, or is it to train people to be skilled for a specific vocation? When focusing on the aims of education we discover the tension between different discourses.

Second, in every educational programme there is a continuing debate over curriculum content, a debate that often focuses on the relevance and value of knowledge, but which also carries undertones of fighting over topical dominance. Although this debate is central to different actors within the institution, even external stakeholders have strong opinions about what students should learn.

Finally, the third issue concerns the role of the student in the process of learning and how the institution organises its teaching activities. There has been a shift in the rhetoric in higher education from subject-based teaching to student-centred learning (Scott 1995). This interest in changing traditional teaching practices is clearly related to enrolment growth and the increased diversity of students (OECD p. 65), and it is particularly noticeable in new educational areas, such as technology.

Making decisions about aims, knowledge and pedagogical structures is a demanding process. Actors within and outside the educational programme may use different strategies in order to promote their own interests. Both the formal and the hidden curriculum do regulate students' behaviour. However the students are also making the curriculum by developing personal strategies in order to handle the regulations, by negotiations and by decisions making. The curriculum is not a fixed, or given entity. Rather, as Patrica Gumport (1988) notes:

Curricula may be seen as a part of the cultural life of academic organisations in which faculty, administrators, and students construct and revise their understandings and in which they negotiate about what counts as valid knowledge in particular historical and social settings (Gumport 1988, p. 50).

The entrance into higher education

This section deals with important questions like, how can we help the students to find their place in their new role and to be successful, could freshmen's seminars be a way to ease the transition between high school and university? Do we take care of and reflect upon what expectations the freshmen's have when they enter the university? A glance at the Swedish arena in this matter is also presented and finally some thinking about the autonomy in learning.

We start with the question how can we help the students to be successful. Moxley et al. (2001) argues that to keep students in higher education a range of supportive practices and strategies is required. By support they claim that the students receive the recourses necessary to help them master their roles as students and how to become successful in their studies. An important emotional support is to create a warm and supportive environment that welcomes the involvement of students. The university needs to realise that the new student could experience anxiety being in a new situation that could be stressful. Another important factor is that the university staff needs to be aware that a lot of students do not realise the extent of the demands of a higher education. Students also have to receive the information required in order to fulfil their needs on the campus. For example the teacher could inform the students of what he/ she will be expecting of them. Moreover Moxley et al. argue that the university should inform teachers and students about the institutional support available to the students to help the learning process become successful. The teacher could help the students to discover ways of studying which are suitable to the student by employing a variety of teaching methods. Another task set out for the university is to inform the student about the possibilities of participating in the student life at the university, thereby visualising any obstacles that could prevent successful studying (bid). One way to help students to meet the demands of higher education could be to have freshmen seminars. A illustration could be made by presenting Howard and Jones (2000) study that takes their starting point lays in the success of freshmen's seminars and how well the students benefits from them. One issue amongst others in this study treated students' conceptions of being prepared for university studies. The aim of the seminar was to aid the development of students' ability of critical thinking and writing. Furthermore, to provide for the students' experience of the university which in turn would supply them with the necessary tools to become successful in their studies. The result shows that the seminar was successful in increasing the student's study efficiency. In other words, the seminars made the entrance into higher education easier.

Another critical aspect of learning is shown in the following quotation by Barrowman (1996 s 103):

When educators make public their expectations for student learning and use those expectations to navigate the teaching, students are better prepared for life in and beyond the classroom.

Furthermore she claims that when the teacher manages to see him/herself as a tutor to the students, instead of a teacher of a subject, the result will be astonishing. They will redefine themselves as being professionals and teachers. The teaching then changes from merely being a delivery of facts to making the students participate (Barrowman 1996).

When we look at the national arena (in Sweden) and how students perceive their education, we found some interesting results published in a recent report by the national agency for higher education in Sweden (Högskoleverket 2002). 70 % of the students asked claimed to never or very seldom discuss the demands of their course with the teachers. The authors explain this by the possibility that the students accept the demands of the courses without ever questioning them. Another interpretation is that the students do not dare to question the demands or the thought to do so has simply never occurred to them. Alternatively the students and the teachers do not regard these kinds of discussions as being relevant to the learning process. The students' experience that the teachers very seldom support them in their social development or give any support in handling non- study related commitments. This could make studies harder for students from non-academic backgrounds. Finally Fazey and Fazey (2001) mean that autonomy when learning is a crucial factor to successful higher education. Therefore they have investigated the extent of newly registered freshmen's/ first year students' display of autonomy- related characteristics. The result showed that the student arrives at the university with a potential of being autonomic in their learning. However, they are unsure whether their abilities are good enough to meet the demands of higher education. The authors argue that this is an issue that should be highlighted by the teacher.

Impact of higher education

Researchers in several ways have addressed the question about the impact of higher education on students during the last 60 years or so. Different approaches as regards choice of methodology and objects of study are discernible in the available research (Table 1).

Table 1. Research approaches for studies on impact of education (Alexandersson, 1985)

	Focus on changes in			**Categories**		**Impact described**	
	Specific abilities	Structural aspects of thinking	Content related aspects	Predefined	Generated through the analysis	Quant-itatively	Qualita-tively
Psycho-Metric	x			x		x	
Evaluative			x	x		x	
Develop-mental		x	x		x		x
Learning		x	x		x		x

Early studies (Husén 1950; Härnquist, 1968), within a *psychometric perspective*, focused on the development of intelligence as an impact of education and showed the relation between the level of education and change in specific abilities. The results revealed that the higher the level of education, the greater extent of positive change in relation to the whole group. On the other hand, groups with low levels of education showed relative negative changes.

The *evaluative perspective* pertains basically to the American tradition of studying the impact of college on students in terms of change in attitudes, values, political orientation, acquisition of specific factual knowledge (Feldman & Newcomb, 1969; Pace, 1979; Pascarella & Terenzini, 1991). The methodological characteristics of this tradition constitute an emphasis on predefined dimensions, operationalised in questionnaires. In the case of studies of long-term effects on

knowledge acquisition, the use of retrospective self-reports is common, graduates are typically asked to indicate the extent to which their undergraduate experience influenced a number of educational objectives, related to the content of the courses. The impact is described in quantitative terms. It is argued that this constitutes consistent evidence that the college experience increases both general and specific knowledge (Pascarella & Terenzini, 1991).

Studies within a *developmental perspective* focus on the longitudinal development of structural as well as content-related aspects of thinking, e.g. concerning awareness of the nature of scientific knowledge such as in Perry's classical scheme of intellectual and ethical development in college students (1970). He described how undergraduate students during their years of studies appear to change their perspective from a dualistic one, comprising a definite view of knowledge as the truth, to a relativistic one, recognising the pluralistic nature and perspective dependence of knowledge. The third stage in Perry's scheme is that of commitment, where the students commit themselves to a certain perspective that becomes their personal view.

Another example of impact studies within the developmental perspective is Hasselgren's (1981) study of the impact of formal education on pre-school student teachers' ways of apprehending children at play which showed that the students develop from a fragmentary or partialistic to a chronological apprehension or from a chronological to an abstracting apprehension during their education. These changes were not found in a control group of physiotherapy students.

Dahlgren (1989) interviewed students of business administration at the beginning and at the end of their education about their conceptions of economic phenomena such as the most prominent contemporary economic problem and the cause of famine in the underdeveloped countries. He found that the students to a large extent change from an initially held political, distribution-oriented perspective to a more depoliticized efficiency perspective.

Bendz (1995) interviewed nursing students at the beginning of their education, three times during their practical training and once after two and a half years of professional experience. Bendz found four different ways of identifying clinical situations among the students and a characteristic pattern of development. Initially, the students I) observe the clinical situation without direct participation, II) take part in the clinical work without relating to the specific needs of the patient in question, or III) identify a specific task they want to learn or carry out. In these three categories, the students do not conceive of the patient as a unique individual. In the fourth category, the students instead focus on the patient and identify the situations from the point of view of the patient. The characteristic pattern of development was from the categories I-III at the beginning of the study to category IV at the end.

Characteristic features of studies within the developmental perspective, according to Alexandersson (1985), are that the patterns of the results show systematic, stable and slow changes. This depicts an impact not influenced by temporary fluctuations in knowledge acquisition, but instead a result of the subjects' confrontation and processing of the educational content. Methodological characteristics are also that the impact is described in qualitative terms and that the

result patterns are described in categories not *a priori* defined, but generated by the qualitative analysis.

The phenomenographic approach pertains to studies of impact within a *learning perspective*, which focus on learning in terms of the conceived content of the education, i.e. how basic phenomena within the educational programmes are understood by the students. The phenomenon of learning is viewed as qualitative changes in conceptions of the content. This approach differs from the evaluative in that the basic assumption is that meaningful learning has to be studied in terms of what the students actually learn from the educational programmes and not in quantitative terms of how much the students learn. Several studies within this perspective have shown that the impact of higher education on students as regards the understanding of basic concepts in different disciplines such as e.g. biology (Brumby, 1979), economics (Dahlgren, 1978) or physics (Johansson, Marton & Svensson 1985; Svensson 1989) is less impressive than indicated by the results pertaining to the evaluative perspective.

There are also some classical studies within the learning perspective that have pointed out the impact of the educational context on students' strategies in social and academic life and shown that the framework of both the campus and the formal and hidden curriculum affect the ways they go about their learning activities (Becker, Geer, & Hughes, 1968; Miller & Parlett, 1974; Snyder, 1971).

Design and Methodology.

The WP1 study as part of the whole project aims at describing the way freshmen students experience their programme and envisages their further studies and their potential work situation at the outset of their university education. In addition to providing interesting results concerning this group of students per se, we will also use these students as a 'reference point' for comparison with students in the final part of their university studies (studied in WP2:1). It is important to underscore the fact that this consequently represents a part of a cross sectional (and not a longitudinal) study.

Programmes selected

The framework for the first decisions made concerning the design of the project were already made in the project plan. All countries would focus on two programmes representing the same disciplines/professions and would in addition select one program according to national preferences. The result of the discussions came out like this:

Common programmes: Psychology (professional programme)
Political science (liberal programme)

Additional programmes:

Sweden	Engineering (professional programme)
Germany	Education (professional programme)
Norway	Law (professional programme)

The interview guide

The WP1 part of the project involves interviewing freshmen students concerning aspects relevant to the research questions asked in WP1. The form of interview

used is a qualitative research interview with strong elements of a phenomenographic approach (see below).

The interview guide was developed in co-operation between the national teams and involved general discussions of domains to be included. This was established at a joint project meeting in Gdansk in 2001. The work continued in the national teams, by e-mail discussions as well as in smaller meetings. This concerned more specific discussions on ways to tap these domains in an interview, forms of questions to be asked and final decisions about the full interview guide. There were even conducted test interviews in some countries to test preliminary versions of the interview guide in practice. As the Norwegian teams had the co-ordinating responsibility for WP1, this process was 'chaired' from Oslo. The process of deciding on the content and format of the WP1 interview was extensive but necessary as the decisions made here will also be decisive for the framework for the WP2:1 interviews with senior students and partly for the WP2:2 interviews with novices after their first year of working experience.

The final result was an interview guide with a core of common questions, formulated in the same way, to be used in all four countries and in all programs. In addition it was up to each team to add topics/questions of particular interest in their national context. The common version (which was written in English and translated and extended nationally) is appended to the report. As shown in the appendix, 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
Personal and moral dilemmas

Selection of informants

Although the selection process had to be conducted somewhat differently in the different countries for practical/organisational reasons, the principles behind the selection were:

"Freshmen' were defined as students in their second half of their first year programme (and who preferably has not studied at any other programmes at the university before this one).

The sample of approximately 15 students per programme should be randomly selected from the population of students registered for an actually participating in the programme in that term.

The sample should seek a proportional representation of gender according to the composition of the population in each programme.

Students selected for interviews should express an intention to continue their studies towards a Master degree level within the field of the programme on which they have started.

Conducting the interview

National research team members split the actual interviewing between them in Sweden and Norway, while the task was given to other interviewers – trained for the task by the teams – in Poland and Germany.

Students were informed about their right to refrain from participating in the interview, about how their anonymity was secured and how the data would be used. They also signed a declaration stating that they had been informed about this and were willing to participate.

Interviews were taped and subsequently transcribed for analysis. The duration of an interview varied between 45 to 90 minutes.

Analysis of interview data

In order to be able to compare data across national teams and programmes, it was important to identify common procedures and categories for data analysis, while at the same time providing for variation between these. The preliminary work on this was started already when the interview guide was developed. After the interviews had been carried out, an initial version of a guide for analysis was distributed, discussed and decided upon in a process involving discussion in national teams, e-mail exchange and a meeting (in Vadstena, Sweden in May 2002) between members of each national team. For this meeting each group brought a sample interview translated into English and representing both common programmes for trying out the suggested guide for analysis. The guide was modified as a result of these exercises and a final version established which include the following phenomena/domains for phenomenographically oriented analysis:

Learning
Knowledge
Competence
Moral responsibility
Societal function / responsibility to the professional group
In addition a more descriptive analysis was carried out concerning:
Motivation (related to studies and future work)
Expectations (related to the student role and the future professional role)

Finally a simplified Critical Discourse Analysis (CDA) has been carried out (see description below).

As a basis for further calibration of the national activities of analysis, this was one of the main topics at the annual international meeting of project teams in Oslo in September 2002. The task of carrying out preliminary analyses of different ‘phenomena’/aspects was distributed between teams in advance and the results of these were presented and discussed as a basis for further national work. As a result of the meeting an outline for the content and organisation of the national WP1 reports was decided and distributed together with a plan and deadlines for finalising the national reports.

A brief outline of phenomenography

Phenomenography is the empirical study of the qualitatively different ways in which various phenomena in, and aspects of, the world around us are experienced, conceptualised, understood, perceived, and apprehended (Marton, 1994) The words "experience", "perceive" and so on are used interchangeably. The point is to suggest that the limited number of ways in which a certain phenomenon appears to people can be found, for instance, regardless of whether they are embedded in immediate experience of the phenomenon or in reflected thought about the same phenomenon. Phenomenography was developed by Marton, Säljö, Dahlgren, and Svensson at the University of Gothenburg in a series of studies of learning in higher education carried out in the early 1970s. The analyses were initially performed in order to obtain a description of the processes and outcomes of meaningful learning from the perspective of the learner. As regards the processes of learning, these were later interpreted as indicating the existence of a surface and a deep-level approach connected, respectively, to an atomistic and a holistic approach. These approaches could be described as a referential dimension as regards the focus of attention and a structural dimension as regards the organisation of the learning material during the learning process.(Säljö, 1975; Svensson, 1976; Marton et al., 1977) The dominating method of data collection has been semistructured interviews. A basic assumption is that individuals vary with regard to how they understand different phenomena in the surrounding world, and that describing the variation as an outcome space is a valuable research enterprise (Marton, 1981).

The phenomenographic object of inquiry

A key issue in phenomenography is the nature and ontological status of *conceptions*, which is the object of the research. Marton claims that,

the basic unit of phenomenography is experiential, non-dualistic, and internal personal person-world relationship, a stripped depiction of capability and constraint, non-psychological, collective but individually and culturally distributed, a reflection of the collective anatomy of awareness, inherent in a particular perspective. (Marton, 1995, p.171).

The experiential ontology of conceptions means that there is no other world to us humans than the experienced one. Human experience is also characterised by our discernment of what is figural in a situation and what constitutes the ground in which this figure is embedded. The individual not only conceives of different aspects or parts of isolated phenomena, but also organises and relates what is conceived to constitute a whole. This could be described as the structural aspect of the experience. Closely linked to the structural aspect is the referential aspect, the meaning; when we discern the parts and the whole and their relationship, we also see the meaning. The delimitation from and relating to a context make up the "external horizon" of the phenomenon, like the shape of a piece of a jig-saw puzzle that remains when it is removed from the puzzle as a whole. The delimitation and relating of parts make up the "internal horizon" of the phenomenon, like when you describe the missing piece in its component parts. The external and internal horizons together make up the structural aspect of the experience. There is a corresponding referential aspect in the meaning inherent in the experience (Marton, 1994) A non-dualistic and internal person-world relationship means that both subject and object constitute each other; i.e. neither the subject nor the object would be the same without the relation between them. In this way, the subject and object are not independent, they form a unity that reflects both the experienced

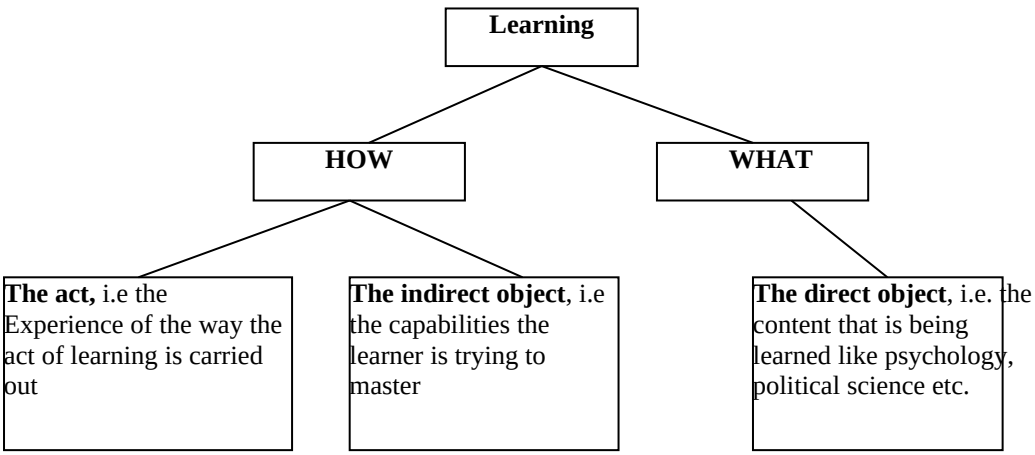
phenomenon and the experiencing subject. The essence of the non-dualistic standpoint is that we cannot describe a world that is independent of our descriptions or of us as describers (Marton, 1995, p.173).

Phenomenography in this study

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 and, thus, do not follow the model of procedure slavishly. In phenomenographic studies in the context of learning, the structural aspect of the experience could also be described as the *'what'-aspect of learning* (fig 1). 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 or political science and the knowledge and competence needed to become a psychologist or political scientist. When we as researchers identify what is discerned, we can also see more clearly how the internal horizon, i.e. how the relationships between the component parts discerned is structured and organised. When we see how the conception is structured, we simultaneously see more clearly the referential aspect of experience, i.e. the meaning that the learner ascribes to the aspects of the phenomenon discerned.

The 'what'-aspect of learning is also inextricably intertwined with the *'how'-aspect of learning*. How does the learner go about when learning and what is the learner trying to achieve? This means that the 'how'-aspect of learning analytically is built up by the *act of learning,* i.e. the experience of the way the act of learning is carried out, and *the indirect object of learning*, the capabilities the learner is trying to master. Is the learner trying to memorise, understand, collaborate etc? The indirect object of learning also includes the expectations on the study programme and the responsibilities connected to the coming professional role.

In this study, the interviews deal with these different aspects of learning in different questions. The outcome space will be built up by a system of descriptive categories. These categories aim at shedding light over both the acts of learning, the indirect object of learning and the direct object of learning as we describe the freshmen's conceptions of their study programmes in psychology and political science and how they envisage their future professions.



Brief outline of Critical Discourse Analysis

Discourse analysis is a set of research procedures applied to interpret complex issues of language use in particular social situations. As J.P. Gee notes, it is informed by a view of language that exceeds the traditionally communicative understanding of its function (i.e. that of exchanging information). For Gee, the main functions of language are *"... to scaffold the performance of social activities (...) and to scaffold human affiliation within cultures and social groups and institutions* (Gee 1999,1). This is why, in this project, the linguistically expressed conceptions of educational issues can be understood as related to subjective activities (actual and planned), social (including professional) identities, and cultural and institutional structures. This approach aim at analysing the cultures of institutions on the basis of individual narratives of people involved in their activities. Social organisations are in general *"produced, reproduced and transformed through the ongoing, interdependent and goal-oriented communication practices of its members* (Mumby 1997, 181). These practices, in turn, have "*implications for how social goods are or ought to be distributed*, which means that they are *political* in the generic (e.g. Aristotelian) sense of the word. (Gee 1999, 2)

As language is a complex and multidimensional universe, the research on language is equally complex. Procedures generally referred to as discourse analysis are diverse, and there are numerous debates and polemics taking place within this area of studies (for presentation of the diversity of approaches see van Dijk, 1998, 1998a). Here, a debate on (and around) the *critical discourse analysis* approach is important to bring forth.

Critical discourse analysis (referred to as CDA in the rest of this text) is not a uniform research strategy. The main common feature of numerous approaches in this field (see Van Dijk 1998) seems to be at least a partial focus on power relations permeating the speech acts. N.Fairclough (1993) defines this methodology in the following way:

By 'critical' discourse analysis I mean analysis which aims to systematically explore often opaque relationships of causality and determination between (a) discursive practices, events and texts, and (b) wider social and cultural structures, relations and processes; to investigate how such practices, events and texts arise of and are ideologically shaped by relations of power and struggles over power; and to explore how the opacity of these relationships between discourse and society is itself a factor securing power and hegemony (1993, 135; quoted after Mumby 1997, 183).

As it has been presented in the theoretical introduction to this report, the issues of power relations (especially those related to economy) are relevant in the analysis of how higher education nowadays shapes the opportunities of learning and knowledge production. This is the main reason why we tend to incline towards the *critical* variety of discourse analysis.

Power in text analysis is usually traced through institutionalised discursive formations, or orders of discourse that shape what is, can, and cannot be said in given circumstances. Following is one of the typical descriptions of the procedure:

CDA's explanatory ambitions aimed at covering all relevant strata of analysis: from (micro) 'text-in-situation' through the (meso) 'institutional' to the wider

(macro) ‘socio-cultural’ – moving correspondingly from the analysis of text through the study of processes of text production, consumption and distribution to an explanatory assessment of discourse as sociocultural practice. (Slembrouck 2001, p.38).

Gee (ibid.) speaks here of discourses, with both small and capital D.

There is one feature of CDA, however, that will not be directly present in our research strategy. CDA is often employed not to merely describe and analyse discursive practices, but also to *change* particular institutions, usually through „raising the critical awareness of the people who are subject to such research. To some extent, such a „partisan epistemology, in which positions and interests of the subjects are taken as the positions from which the whole discursive area is being read, will also be present in our project. This will be mostly provided by the phenomenographic approach to interviewing – the discourses we will try to deal with will be constructed from the perspective of the „life-worlds“ of the subjects. From there, we will try to proceed towards institutional and – in general – cultural formations. What will be of lesser importance here, however, are claims to emancipatory validity of the project that are typical of many CDA approaches, i.e. attempts at the research results being significant *for* the subjects, helping them in dealing with *their* particular problems. Our research will not be directly oriented towards „institutional intervention aimed at changing concrete environments so that the interests of our subjects are better recognised. It does not mean, however, that it cannot be significant for the students involved. Interviewing students on their conceptions of learning and work, we do intervene in their ways of seeing their lives. It may help them name as well as critically distance themselves from, particular narratives that shape their lives, and may inspire them to develop strategies they may use to re-shape them. This, however, is not a result that will be in directly controlled by us.

As we are not intending to „act for the students we are interviewing, we need to delimit our approach as *partly* consistent with the goals usually adopted by CDA researchers. This is why Gee’s approach to the study of discourse, collapsing the difference between critical and uncritical (if such is possible) discourse analysis, is adopted here. In his account, *every* discourse analysis - while reaching towards social contexts - is critical.

How discursive formations are traced: CDA in the Journeymen project

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. 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 (DA) and critical discourse analysis (CDA). The results of such analyses will lead towards a hermeneutic and comparative interpretation of cultures within which our investigations take place.

Interview data – as any other text – can be used as material for discourse analysis. A very good (and clearly reported) example of such an interpretative procedure

can be found in Talja, 1999. In her account, discourse analysis of the interview data incorporates three stages:

The first phase consists of the analysis of inconsistencies and internal contradictions in the answers of one participant. The second phase consists of the identification of regular patterns in the variability of accounts: repeatedly occurring descriptions, explanations, and arguments, in different participants' talk. [...] The third phase consists of identifying the basic assumptions and starting points (in Foucauldian language, 'statements'), that underlie a particular way of talking about a phenomenon. (Talja 1999, 466)

A very similar outline for identifying discourses has been proposed as the methodological guideline for the first stage of discourse analysis in *Journeymen*. Later stages - involving more complex analyses of various 'levels' of discourse and the dynamics of its production, distribution and re-production - will follow after the completion of phenomenographic data and their comparative analysis. This delay result from our experience that the operation of discursive structures sometimes becomes overt when *different* narratives are compared. Technically speaking, the more detailed analyses – designed in order to describe structural complexities of educational discourses – will be undertaken when discourses identified at the first stage of analyses in all participating countries and in all researched programmes are juxtaposed and scrutinised for similarities and differences. This will lead to a number of procedures designed to describe institutions in the instances of production, distribution, and reproduction of discourses on the levels of language usage, structures (classifications, omissions, exclusions, etc), legitimacy, and power. The whole analysis will be concluded with broad hermeneutic interpretations of academic cultures, making use of the results of phenomenography and discourse analysis, and involving insiders' perspectives of the researchers – this time as members of the researched communities themselves (all authors of the reports are employees of the institutions where data are collected).

At the present stage of research, the main goal is to *identify* discursive formations that seem to speak through the interview data. Therefore the parts dealing with discourse analysis are deliberately sketchy and they are only meant as starting points for further investigations.