

THE FIRST ONLINE COURSES IN SLOVAKIA - NOAH'S ARK OR TITANIC?

By

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Abstract

The purpose of this study is to investigate problems encountered by learners as they participated in the first online courses in Slovakia, analyze the problems and determine which problems are connected with Slovak cultural background, legislation and economic situation, and hence might be specific to Slovakia or the region of Central and Eastern Europe.

Data were gathered in two stages. First, semi-structured interviews were conducted with students in the first pilot run of the four online courses. Students were asked about issues identified in the literature and from the experience of the researcher, and provided an opportunity to add new issues.

Second, based on the analysis of the interviews a questionnaire detailing the issues that could influence the learning experience was prepared in the second stage. All 131 students who participated in one of the four online courses were asked to complete the questionnaire. For each particular issue, they were asked to indicate the level of importance and the positive/negative effects on their learning experience.

Among all issues, influence of which learners in the first online courses in Slovakia evaluated most positively were flexibility of time and space for study, feedback from their tutors, time savings through flexible schedules, option to use Internet resources and technical assistance received from their tutors. Among most negative issues overall according the students were problems with English proficiency when dealing with Internet resources, problems with access and reliability of technology, feelings of isolation and lack of support from employer.

After further analysis, I came up with a list of eight issues, which seem related to local technical (weak infrastructure, problems with access to technology and Internet), socio-economic (lack of motivation and skill on the part of teachers, lack of reward structure for students) and cultural circumstances (teaching style/approach problems, label of low quality on distance education courses, problems with independence and responsibility on the part of students, newness of peer collaboration, language problems with Internet content).

This study has confirmed at least two reasons for developing online learning in Slovakia. It can improve quality of teaching and access to education, which is one of the major problems of Slovak educational system.

Many enthusiasts in Slovakia consider online learning to be a Noah's Ark for bringing Slovak higher education to a new level. Reality indicates that this assumption is probably not true. However, the results of this study do not imply the Titanic metaphor either. My impression tends more towards a small dugout canoe, moving slowly forward, propelled by the paddling of enthusiasts pushing for change. However, since the state institutions and European Union funding bodies show increasing interest in online learning, this boat may soon get a sail.

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CHAPTER ONE

GETTING STARTED

The concept of using the Internet as a medium for distance education is rather new in Slovakia. Discussions among educators on online learning¹ are still mostly theoretical and yet controversial. Some believe that online learning will resolve problems with access to higher education, that it will safely carry Slovak education through changing times like Noah's Ark. Others believe that education without face-to-face contact with a teacher can not have any lasting value, and all expensive online learning projects will become victims of false sense of security and rapidly sink like the Titanic.

Ultimately, after all these theoretical discussions, the first online courses developed in the Slovak language for Slovak students were introduced in 2001 at different higher education institutions throughout Slovakia. As such pioneering attempts often do, these courses are struggling with different problems. Online courses, funded by the Soros Foundation, attempted to offer a new approach to continuous teacher training. Four fully online, or online with face-to-face introductory and exam meeting courses, were run for the first time between September 2001 and September 2002 at three different universities in Slovakia. A second run began in September 2002. The first learners in these courses were full time university students and teachers at primary and secondary schools. Those who participated were people willing to try something new, and wanted to be a part of this pioneering experience.

Slovakia, as a post-communist country, carries features connected with its history, culture and economic situation, which can affect students in online courses. These include weaker technical infrastructure and Internet access, cultural tradition

¹ Terminology in the field of online learning is not entirely unified across the literature. Different authors are using different terms such as online learning, Internet based learning, distributed learning or e-learning. They all have justifications for their specific terms and in some cases there are differences in meaning as well. Within this study I will keep using term online learning, by which I mean courses using Internet as main communication medium between student and tutor. This includes fully online courses as well as courses that combine Internet communication with face-to-face meetings, where Internet communication plays primary role.

of a predominantly behaviorist approach to education, and a past of forced advocacy of Marxist-Leninist ideology which did not encourage independent thinking.

The purpose of this study is to find out what students who participated in the first online courses think and feel about the experience and what they viewed as major obstacles and advantages of taking an online course. Through further analysis, I attempt to determine which of the student's problems have connections to the cultural, historical and economic environment of Slovakia.

In the first chapter, I briefly describe the rapid growth of online learning around the world and provide a summary of the forces driving and opposing this growth, an outline of the main directions of beliefs and assumptions of online learning, summarize how online learning works, and provide a brief list of institutional changes which are necessary for successful implementation of online learning. Reflections on the current situation in Slovakia are included as well.

In the second chapter, I focus on the research literature that describes the problems of students in online courses. Different types of studies and articles look at student problems from different perspectives. I tried to gather as much information as possible from these different points of view. There are instructional design books, articles written by teachers who taught online courses and who share the experience, and articles on qualitative issues. A group of studies and articles providing perspectives from the student's viewpoint are represented by evaluation studies, research on student retention and a few articles try to provide a comprehensive view of student problems. As well, I present a special focus on articles from countries of Central and Eastern Europe, which share a similar communist past with Slovakia, and where students might have similar problems. The second half of Chapter Two contains a summary of factors that might influence a student's experience during an online course, as gathered from recent literature.

The third chapter examines specific situations in Slovak education, circumstances in which university teachers and students, and primary and secondary school teachers, work. I provide basic information on political context and economic circumstances, information on the higher education system, its recent changes and problems, and brief information on adult and distance education. I then describe the

Internet connectivity situation in Slovakia, focusing on connectivity of universities and primary and secondary schools.

The fourth chapter provides a brief history, current situation, and the most common beliefs and assumptions about online learning in Slovakia. I examine forces that can influence online course creation and delivery, and the experience of students. Included as well, is a description of the Internet Distance Education Program (IDEP) program of the Open Society Foundation, which provided funding for the courses that are part of this research. At the end of this chapter, I summarize the Slovak obstacles to online course development as derived from data provided in the third and fourth chapter, and which can have an influence on student experiences.

In the fifth chapter I provide descriptions of the four courses used in my research, describe interview methodology, participants, structure and provide brief summary of interview results, which are used to develop the questionnaire. Questionnaire development and procedures of collecting questionnaire responses are described in this chapter as well. The English version of the questionnaire is attached as Appendix 1.

The sixth, seventh and eight chapter provide data and analyze issues influencing experience of students in online courses. Chapter six focuses on issues related to course structure, chapter seven on personal situation related issues and chapter eight on issues connected with organizational setting of the student. For each group of issues I choose analysis according to variables like gender, profession or age distribution, which seemed to be some differences between different groups of students.

In chapter nine I focus on analysis of the issues which might be connected with cultural, historical and economic circumstances in Slovakia. I start with assumptions based on interview results, then verify it according to the questionnaire results. Lastly, I create a list of eight influential factors, which appear to be connected with cultural, historical and economic circumstances in Slovakia.

The tenth chapter summarizes my conclusions and provides recommendations for further research and for the future design of online courses in Slovakia.

CHAPTER TWO

GROWTH OF ONLINE LEARNING

Worldwide Development

Using the Internet in education has become a popular new direction at many educational institutions around the world. In knowledge-based economies, life-long learning is considered critical for economic development. Education does not end with a university degree. There is a need to continue learning and absorbing new information throughout one's life. A typical life-long learner can be classified as a professional, working full time, with family obligations and a social life. Online learning, offering necessary time and place flexibility seems to be an ideal tool for such life-long learners (Bates, 2001).

Growth in the number of courses, virtual institutions, and articles dealing with online learning is increasing at a rapid pace. When describing this development as "madness" and a "gold-rush", Boshier relates to getting 71,600 hits from the Google search engine for the words "Virtual University" in March, 2001 (Boshier, 2001). When I repeated the same search in February 2003, the number of hits had grown to an overwhelming 2,060,000.

According to Hirsch (2001), by 2000, 57% of Canadian universities were already offering online courses, with 3,000 courses offered in total. In other countries, the numbers are lower, for instance, only 25% of Dutch universities offer online courses, but 90% say they have plans to do so in the future.

The forces driving and opposing the development of institutions offering online courses in a global context can be summarized as follows (Farrell, 1999).

Among driving forces belong:

- The increasing capacity, flexibility and suitability of information and communication technologies to educational applications, together with decreasing costs of hardware
- The growth of knowledge, which is increasing pressure for continuous and life-long education, and people in diverse personal situations who are seeking more flexible forms of learning

- The suggestion that quality of education can be increased through various interactive and collaborative activities and by making accessible the wide resources of the Internet
- The demand for better access to education from students in remote areas
- The hope of many educational institutions that online education will enable them to increase their market share in a competitive environment
- The need to be seen to be “keeping up with the competition”
- The expectation by policy makers and administrators that development of online programs will reduce costs and increase productivity

As the third chapter will show, in the Slovak context, some of these forces are very strong (primarily, demand for better access to education), and some have a much lesser influence. For example, the rigid system of state funding and limited access to education results in high student demand such that market motivation factors like competition and productivity play minor roles.

Among forces opposing development belong (Farrell, 1999):

- Insufficient Internet accessibility or low bandwidth that in many places does not allow an institution to develop online education effectively.
- Many learners have no access to information and communication technologies
- The initial costs for implementing online delivery are rather high.
- Copyright restrictions on some instructional materials can block its use in collaborative inter-institutional or international arrangements.
- Systems of learner support are not everywhere sufficient for online modes of delivery
- Lack of computer skills among faculty.
- The educational philosophy of many teachers is closely connected with a belief that education should be structured and directed by teachers. Hence, many teachers hesitate to shift into the role of facilitator that is more associated with online education.

- The transfer of course credits among different institutions can be a problem for students who would like to combine regular courses at their home institution with online courses from another.

Unfortunately, in the Slovak context, almost all of these forces are very strong and effectively cause delays in introducing online learning on a wider scale. Perhaps the only exception of a factor, which has not yet gained significant influence, is copyright issues, in which the tolerance towards breaking copyright laws seems to be much higher in this region than in Western Europe or North America. However, with an increasing influx of knowledge, technology and Western European and North American donors, awareness towards copyright issues is increasing.

Beliefs and Assumptions

As is usual with any innovation, there are groups of enthusiastic people, groups of skeptics and groups of educators trying to extract and use the advantages the innovation brings while being aware of the drawbacks. Positions towards online learning can be divided into four groups (Boshier & Chia, 2000):

- Techno-utopians are optimists who believe that implementing online learning will help to resolve problems in society and education, by increasing access to education, promoting equity, fostering better interaction, collaboration and participation, and that represents a paradigm shift in education.
- Techno-cynics don't believe that using the Web can help society at all. From their point of view, it will concentrate power and help big corporations to change education into a commodity. Internet in education will only increase the gap between the haves and have-nots and help America to dominate the world.
- Techno-zealots have no interest in any social implications of using the Internet in education. Rather, they strongly believe that Internet technology is a good thing and implementing new technologies always brings

improvements. They see implementation of the Internet in education as a purely technical problem.

- Techno-structuralists don't believe Internet technology itself is good or bad. It all depends on implementation. This group consists of hesitant optimists as well as pessimists willing to give it a try. They are trying to take into account all the implications and carefully choosing proper positive applications.

Only a few years ago, Slovak professional discussion could be considered as highly influenced by techno-zealot discourse, since people with mainly technological backgrounds started to get interested in online learning (for instance Babinsky, 1999, Huba, 2002). Recently, though, there is greater diversity in the discourses, and articles and studies presenting other positions can be found (for instance, Ozvoldova, 2002, presenting a Techno-utopian position, or Dado & Drozdova, 2003, presenting a Techno-structuralist position).

How it works

Information and communication technology is used for learning in educational institutions in three main ways: technology enhanced classroom teaching, distance education and online learning² (Bates, 2001). Technology enhanced classroom teaching basically means traditional face-to-face classes where the teacher is using technology and the Internet to improve presentation and understanding of the course content. For instance, the teacher can prepare a web site with Internet links to support the class, or to use a program like PowerPoint to present the content to students. Distance education via the Internet has developed from classical correspondence distance education. Distance education programs have been offered by different institutions for over one hundred years. In order to widen access and economize the costs, these institutions were always searching for and using new technologies such as audiocassette, videotapes, TV, and radio broadcasts, etc. Implementing the Internet to improve access and interactivity of remote students was a logical development.

² Bates uses term distributed learning, to emphasize difference from distance learning and the fact, that medium used does not always need to be Internet. However, all these statements fully apply to online learning as it is understood for the need of this study.

Online learning comes out as a deliberate mix of face-to-face and distance learning. It is becoming clear that the same teaching materials can be used by both on-campus and distance education students, and by using the Internet these two trends are converging into one. A mix of styles and technologies according to student needs and circumstances is becoming increasingly popular. One of the Czech visionaries of online learning likes to say “Both whisky and education are best when blended” (Bauerova, 2003).

However, online learning is as well defined as a learner-centered approach and it gives options to instructors to customize learning according student needs (Bates, 2000). For Slovakia, the change to a learner-centered approach connected with online learning is going to be a major one, due to the tradition of authoritarian approach to teaching, as I will explain in chapter three.

What is Different

When any new technology was introduced to education in the past, whether it was radio, film or television, there were always visionaries predicting radical changes. However, no previous technology was introduced at such a speed and in such a large scale as the Internet. And, introducing online learning requires infra-structural changes at the university (Bates, 2001).

Necessary changes at the institution include (Martin, 1997, Bates, 1999, Institute for Higher Education Policy, 2000):

- Infrastructure and system: Computer equipment must be sufficient and reliable with adequate Internet bandwidth, administrative protocols and policies must be appropriate for online courses, and teachers and students must be provided sufficient access to technology.
- Institutional support: Ways of funding development of online courses need to be created and support for implementing new ideas must be provided.
- Faculty support: Teachers must be enabled to get necessary computer literacy training, technical assistance for course development should be provided, and systems of support and incentives for innovations should be introduced.

- Student support: A complete system of student support and feedback must be created to prevent drop-outs from courses due to feelings of isolation and of frustration with a lack of proper help for their problems. They should receive proper information about programs and how to access technical and course assistance during their study.

As I will show in detail in chapter three, universities in Slovakia are far from being ready with the changes necessary to implement online learning.

In this chapter I tried to provide basic information on the growth of online learning, provide a summary of the forces driving and opposing this growth, outline the main directions of beliefs and assumptions on online learning, provide a brief list of necessary institutional changes and offer some clues for the contrast between the situations in Slovakia and the main North American trends.

In the following Chapter, I review the research literature on problems that students encounter in online learning. Different types of studies and articles look at student problems from different perspectives. There are instructional design books, articles written by teachers sharing experience from teaching online courses and articles on qualitative issues. Studies providing student perspectives include evaluation studies and research on student retention. I present a special focus on studies from countries of Central and Eastern Europe, which share similar problems with Slovakia. The second half of the chapter contains a summary of factors that might have an influence on student's experience from an online course, as gathered from recent literature.

CHAPTER THREE

RESEARCH ON STUDENT PROBLEMS IN ONLINE LEARNING

This chapter provides an overview of research literature that describes the problems of students in online courses. The second part of the chapter contains a summary of factors that might influence a student's experience during an online course.

Instructional design literature

One of the most important factors in eventual academic success is to understand how students in online classes react when they are separated by time and space and are using information technologies to communicate.

Almost every book or large study dealing comprehensively with distance and online courses contains a chapter focused on likely expected student problems and offering possible instructional strategies to deal with them (Laurillard, 1993; Harasim et al, 1995; Inglis, Ling & Joosten, 1999; Brindley 1995; Moore and Kearsley, 1996). Harasim (1995) writes broadly about the advantages of having options for student interaction, peer support and collaboration within online communication. She lists expected problems for students including technical issues, communication anxiety, information overload, time management, lack of time and miscommunication problems, and analyzes appropriate instructional strategies. Brindley (1995) emphasizes the importance of student support in overcoming many student difficulties. She quotes Moore (1989) in noting that the Open University, UK, spends roughly the same amount of money on "preparation of course materials as on learner support". She then points out that in many institutions "the balance is heavily tipped toward course development, particularly where resources are quite scarce (p.105)." Adult distance learners are highly motivated students with life and professional experience, seeking education with practical implications for a career, which the flexible and accessible opportunities of distance or online learning offer (Moore & Kearsley, 1996). Although often anxious about meeting course expectations, they are equally drawn by their own personal expectations. Moore and Kearsley also see motivation – an 'intention to complete' the course, as the most

important retention factor. They divided factors affecting student success into four categories: educational background, personal characteristics, extracurricular concerns and academic concerns.

Then there are research studies and articles by course instructors describing their experiences and providing tips for instructional methods. Wiesenbergs (1999) shares her experience by comparing face-to-face education with online learning, presenting her own teaching approaches and issuing recommendations for online teaching methods. She lists benefits (time and place flexibility, peer interaction, increased quality of learning) and challenges (technical frustrations, information overload and miscommunication) of "computer-mediated" communication. Meyer-Peyton (2000) offers instructional recommendations based on experience from courses provided by the U.S. Department of Defense Education Activities. Heberling (2002) addresses the issue of plagiarism and the general assumption that plagiarism is easier in online learning. He declares that the challenge is equal in all educational settings and recommends methods for plagiarism detection specifically for online learning.

Another group of readings focuses on evaluation and quality issues of online learning courses, giving instructional recommendations (Saturn Quality Guide, 1992; Powers & Guan, 2000; Nguyen & Kira, 2000; Institute for Higher Education Policy, 2000; Lockee, Moore & Burton, 2002). Lockee, Moore and Burton (2002) describe distance education courses as "a complex array of infrastructures and personnel consisting of instructional, technological, implementation and organizational issues which can not be isolated and itemized" (p.21). Powers and Guan (2000) emphasize the necessity of examining student needs, technology availability and accessibility, and all possible aspects of learning motivation to be used as a guide in the design process. Within their study (supported by Blackboard Inc.), the Institute for Higher Education Policy (2000) interviewed tutors, administrators and students of six different U.S. higher education institutions and selected 24 quality benchmarks for online courses focusing on instructional and management strategies.

Research on Student View

A significant portion of research studies that focus on the student's point of view in online courses are based on an evaluation of a particular course or program (Davis & Ralph, 2001; Bullen, 1998; Figueroa, 1992; Virkus, 1997; Grycz, 2000; Burge, 1994; Ronteltap & Emelings, 2002; Hara & Kling, 2000). In attempting to summarize complex student frustrations during web-based courses at a major U.S. university Hara and Kling (2000) found two focal points of students' distress. The first was technological problems, where inexperience and lack of access to technological support caused major frustrations and obstacles for students. The second involved course content and the instructor's practices in managing her communications with students. Bates (1999) describes cultural and ethical issues, which were raised during an attempt at cooperation between The University of British Columbia in Canada and the Technical Institute in Monterrey, Mexico. Besides institutional difficulties and frustrations, he mentions the fact that most materials on the web are in English and students with a different native language are at a disadvantage. Burge (1994) focused on identifying learning strategies used within a group of 21 M.Ed. students. Her interviewees identified strengths of their online experience as independence of action and help from peers and others. Weaknesses included misunderstandings, information overflow and time delays. Ronteltap and Emelings (2002) used asynchronous collaborative learning tools to examine interactions within a group of students in the time between regular meetings of a tutorial group in problem-based learning. They emphasize the importance of facilitation and an appropriate mixture of theoretical and practical problems for students to discuss and resolve.

Another group of studies focuses on student retention (Garland, 1993; McAlister, 1998; Hricko, 2002; Akridge et al, 2002; Sciuto, 2002). Tresman (2002) outlines a student retention strategy for the Open University (OU), UK. She argues that causes of student dropout are a result of complex situations including political, social and economic circumstances. According to Open University surveys, the most significant factor for dropouts was a lack of time. Domestic factors such as balancing work and family obligations also ranked high. The sense of overload was

also significant, though Tresman points out its connection to rather unrealistic expectations by students at the beginning of the course. According to Sciuto (2002), the best student retention strategies encourage ongoing interpersonal dialogue, provide prompt feedback, offer an online course orientation and establish clear learning objectives. Akridge, et al (2002) describes strategies at Purdue University that address retention issues in their MBA program. They see the stress of balancing work schedules, the need for a personal life and twenty hours of study per week as the main problem for students. Their three broad retention strategies include focus on student selection and preparation; a learner focused delivery philosophy, and engagement of learners on a much more personal level.

Some studies attempted a more complex view of student's problems and their perspectives on online courses. John Pettit (2002) examined the experiences of ten adult distance learners in different online undergraduate business management courses, focusing on power relationships. Among others, he found that obtaining a degree, with the promise of better salaries and better jobs, was among the strongest motives to participate. Boshier, et al. (1997) examined 127 different web courses for how well "dressed" they are. The issues highlighted by these researchers as the most important to look at were accessibility, interactivity and attractiveness of the web site. They discovered that most online courses fail to present a web site that is accessible, interactive and attractive at the same time.

Studies from Central and Eastern Europe

Countries of Central and Eastern Europe share a communist past as well as a wide range of problems connected with the slow transition of their education systems towards modern, effective democratic systems. Dealing with education reform problems within an underfinanced system of a country in economic transition results in rather slower development in technological infrastructure and introduction of new methods and teaching approaches connected with using technology.

The number of studies dealing with the experience of learners is not very high, since few courses have been introduced in the region. Virkus (1997) examined an online course for librarians in Estonia. She provides insights into struggles to

improve technological infrastructure and describes efforts to overcome technical inexperience of Estonian librarians. Grycz (2000) shares experience from one of the first hybrid distance courses in Poland for librarians offered in English for students from countries of Central and Eastern Europe. Babinsky (1999) attempts to summarize the circumstances in distance education (focusing on European Union supported activities) in Slovakia. Sramek and Friebergova (1999) offer their experiences from one of the first online courses in the Czech Republic. Kudrjajtseva (2002) describes the use of technology in distance education by teachers in Ukraine. She mentions a lack of technical experience among teachers as one of the main problems. Bednarikova (2002) describes experiences from training courses for distance education professionals in the Czech Republic, emphasizing problems connected with a lack of self-discipline and of students taking responsibility for their study.

According to the few studies available, one of the main issues for the region is the variety of technical problems (Virkus, 1997; Grycz, 2000; Bregar et al, 1999; Kudrjajtseva, 2002). Many courses in countries of Central and Eastern Europe were developed and maintained with support from European Union Accession Funds (Bregar et al, 1999, Babinsky, 1999, Sramek & Friebergova, 1999). A four million ECU³ project called PHARE Multi-Country Co-operation in Distance Education was conducted in 1995 – 1999 (Virkus, 1997; Babinsky, 1999). A condition for project support within the European Union grant programs was cooperation of institutions from more European countries. As a result, most courses developed under the EU grants program are taught in English or German, which brings a whole range of problems caused by the fact that students are taking courses in a foreign language. In addition, most of the handiest and useful Internet resources are also in English, causing further language issues for Central and East European students (Grycz, 2000; Bregar et al, 1999; Sramek & Friebergova, 1999).

³ European Currency Unit

Frameworks for Student's Problems

Rubenson (1986) provides a framework for factors of student retention in distance education. He defines groups of situational, institutional and dispositional barriers. Situational barriers are connected with a student's personal life and involve things such as time constraints. Institutional barriers are connected to the institution offering the course, and can include admission requirements, course pacing and limited support services. Dispositional barriers are related to the student's psychological and sociological natures, i.e. their attitudes, confidence, learning styles and motivation. In her study of reasons for withdrawal of students from distance education courses at the University of British Columbia, Garland (1993) adds a fourth group (epistemological) to Rubenson's model, splitting barriers into four categories:

- Situational (poor learning environment, lack of time)
- Institutional (cost, problems with institutional procedures, problems with course scheduling/pacing, problems concerning tutorial assistance, instructional design problems)
- Dispositional (lack of a clear goal, stress of multiple environments, time management/procrastination problems, learning style problems, adult pride, and psychological, social and economic factors)
- Epistemological (epistemology of course differed from student's epistemological stance, internal epistemological gap between presented content and expectations, content lacked personal relevance, interest, lack of prerequisite knowledge)

In her article summarizing literature on student retention, Mary Hricko (2002) concludes that institutional and epistemological barriers provide the greatest number of reasons why students withdraw from distance courses. She provides some instructional and managerial recommendations in these areas.

Zafeiriou, et al (2001) studied participation issues by interviewing 50 students taking online courses at the University of Sheffield. They identified groups of factors influencing learner participation such as:

- Course and Learning Activity Design

- Anonymity
- Basic Computer and Technology Skills
- Psychological and Personality Characteristics
- Technology Problems

Philips (2002) analyzes general reasons for failure of corporate online learning. She suggests three interrelated levels on which failure can occur:

- The Product Level (poor course design, inadequate technology infrastructure)
- The Learner Level (poorly prepared learners, lack of motivation, no time)
- The Organizational Level (low managerial support, lack of reward structure)

For the purpose of my research, I divided the issues influencing students' experiences in online learning into three groups according to the cause of the issue, similar to Philips (2002).

- First, is a group of issues connected with (being influenced mainly by) course structure, design and student support - Institutional barriers according to Garland (1993). I named the group Course Related Issues.
- Second are issues connected with (being influenced mainly by) personal experience, educational background and family situations of the learner - Dispositional and Epistemological barriers according to Rubenson and Garland. I decided to use the name Personal Issues.
- The third group contains issues connected with (being influenced mainly by) the institutional and organizational setting of the learner and technical issues on the learner's end (Garland's Situational group of barriers). I decided to call this group Learner's organizational Issues.

A summary of issues, based on accessible literature follows.

Summary of Course Related Issues

Issues in the first group – (course related) include:

- Costs for the student. The course fees plus additional costs for textbooks, deposits for videos, fees for attending labs, etc., must be appropriate to what

students are able and willing to pay (Garland, 1993; Bates, 1995; Philips, 2002)

- Availability of course descriptions, expectations, outlines syllabi. Due to the novelty of online learning, students often enroll in a course with rather unrealistic expectations. To prevent large dropout rates, course designers should make clear right from the start exactly what the course is about and what their expectations are from students (Lockee, Moore & Burton, 2002; Laurillard, 1993; Institute of Higher Education Policy, 2000; Tresman, 2002; Sciuto, 2002; Brindley, 1995; Bates, 1995).
- Good initial orientation. An introductory part of the online course (or introductory face-to-face session) is essentially important for overcoming learner's anxiety and unrealistic expectations (Laurillard, 1993; Tresman, 2002; Sciuto, 2002; Meyer-Peyton, 2000; Bates, 1995; McAlister, 1998).
- Feedback from tutors, providing guidance. An online learning student connected with the teacher only by technology naturally feels isolated. The student must feel that there is a human being on 'the other side' ready to deal with his/her problems and to provide help when necessary.
(Wiesenberg, 1999; Inglis, Ling & Joosten, 1999; Laurillard, 1993; Institute for Higher Education Policy, 2000; Tresman, 2002; Hricko, 2002; Akridge et al, 2002; Moore & Kearsley, 1996; Nguyen & Kira, 2000; Meyer-Peyton, 2000; Powers & Guan, 2000; Harasim et al, 1995; Boshier et al, 1997; Bates, 1995; McAlister, 1998)
- Feedback, interaction with peers. Online courses should not include only student/tutor communication. Peer advice and help are a very important part of the learning experience. (Hara & Kling, 2000; Pettit, 2002; Laurillard, 1993; Grycz, 2000; Tresman, 2002; Akridge et al, 2002; Moore & Kearsley, 1996; Harasim et al, 1995; Boshier et al, 1997; Bates, 1995; Bullen, 1998; McAlister, 1998)
- Respect of learners' previous knowledge. Adult learners, as opposed to younger students, already have life and practical job experience, which should be respected by the course providers and students should be offered

time and space to share their knowledge (Tresman, 2002; Akridge et al, 2002; McAlister, 1998).

- Integration of different parts of the course. The tasks, assignments and workload should be spread continuously and logically through different parts of the course (Laurillard, 1993; Hricko, 2002; Harasim et al, 1995; Bates, 1995).
- Activating and engaging course structure. Design of the course should be interesting, motivating and engaging for the students throughout its duration (Lockee, Moore & Burton, 2002; Davis & Ralph, 2001; Laurillard, 1993; Institute for Higher Education Policy, 2000; Akridge et al, 2002; Powers & Guan, 2000; Harasim et al, 1995; Bates, 1995; Bullen, 1998).
- Relevance of media. Choice and use of technology must be relevant to the course content and to the potential and capabilities of the learners (Laurillard, 1993; Inglis, Ling & Joosten, 1999; Hricko, 2002; Meyer-Peyton, 2000; Bates, 1995).
- Library, access to resources. The course designers should ensure that distance students have access to relevant educational materials and resources connected with the course (Wiesenberg, 1999; Institute for Higher Education Policy, 2000; Bates, 1995).
- Technical assistance. Support for students to overcome technical problems should be immediate. (Virkus, 1997; Institute for Higher Education policy, 2000; Tresman, 2002; Moore & Kearsley, 1996; Meyer-Peyton, 2000; Harasim et al, 1995; Bates, 1995).
- Reliability of technology. Technical problems on the side of course provider should be minimal (Laurillard, 1993; Institute for Higher Education Policy, 2000; Harasim et al, 1995; Boshier et al, 1997; Bates, 1995).
- Dealing with cheating and plagiarism. The belief that cheating and plagiarism are more widespread and easier for online students than face-to-face students is very common. The course authors should be aware of these challenges and prepare for them. (Heberling, 2002; Grycz, 2000; Meyer-Peyton, 2000)

Summary of Personal Issues

Issues in the second group (personal) include:

- Matching educational background with expectations. Each individual bases his/her expectations for online courses on previous educational experience. Novelty and the differences of studying online can bring positive or negative surprises. (Tresman, 2002; Nguyen & Kira, 2000; Powers & Guan, 2000; Harasim et al, 1995; Bullen, 1998; McAlister, 1998)
- Anxiety, nervousness about meeting expectations. Adult learners, especially when in a new online environment, tend to be anxious about their abilities to learn and deal successfully with tasks, assignments and exams within the online course (Moore & Kearsley, 1996; Wiesenberg, 1999; Powers & Guan, 2000; McAlister, 1998)
- Quality of learning. The online learning experience can be very different from the experience of face-to-face learning. Some students feel improvements in their learning experience; some feel the experience is of a lower quality. (Wiesenberg, 1999; Harasim et al, 1995; Figueroa, 1992)
- Flexibility of time schedule. One of the main features of distance and online learning is the fact that students can decide when and where to study (Pettit, 2002; Wiesenberg, 1999; Virkus, 1997; Moore & Kearsley, 1996; Harasim et al, 1995; Bates 1995; Bullen, 1998; Figueroa, 1992)
- Support from family. Personal family situation plays a very important role – motivating or discouraging the learner (Pettit, 2002; Tresman, 2002; Nguyen & Kira, 2000; Bullen, 1998; McAlister, 1998)
- Saving of time by studying online. By studying online, the learner can save the time otherwise spent by traveling to the school. But as well, communicating using technology can take more time than face-to-face communication, so the time savings may not be significant. (Pettit, 2002; Tresman, 2002; Moore & Kearsley, 1996; Harasim et al, 1995; Virkus, 1997)

- Use of internet resources. Studying online can be connected with the option of using the Internet as a source of information and materials. (Wiesenberg, 1999; Davis & Ralph, 2001; Akridge et al, 2002)
- Language problems with Internet resources. Most Internet resources are in English. For students whose English is not very good, Internet resources can be more a source of frustration than a helpful source of information (Grycz, 2000; Bates 1999)
- Information overload. Being unaccustomed to studying online and having to deal with new technology, instructions, guidelines, course content and Internet resources can make students feel overloaded. (Wiesenberg, 1999; Tresman, 2002; McAlister, 1998)
- Miscommunication. Since most of the communication between learner and tutor is made via technology, misunderstandings are more likely (Wiesenberg, 1999; Davis & Ralph, 2001; Harasim et al, 1995; Bullen, 1998; Burge, 1994)
- Loneliness, isolation. Communicating with tutors and peers using only technology can cause strong feelings of isolation and loneliness. (Davis & Ralph, 2001; Virkus, 1997; Harasim et al, 1995; Bullen, 1998; McAlister, 1998)
- Lack of technical experience. Students who do not have previous knowledge and experience with online technology can feel it as a very strong handicap. (Davis & Ralph, 2001; Virkus, 1997; Harasim et al, 1995; Bates, 1995)
- Shyness. When communicating online – mainly in written form, the feeling that any mistakes made by the student will stay on the web for all other students to see can cause a high level of shyness or anxiety to express their own views. (Davis & Ralph, 2001; Bullen, 1998; McAlister, 1998)
- Freedoms to express yourself better. Some students who have problems expressing their views in face-to-face communication due to shyness or uncertainty reported feeling more freedom and confidence to formulate their views and participate in discussion within an online course. (Davis & Ralph, 2001; Virkus, 1997; Bullen, 1998)

Summary of Learner's organizational Issues

Issues in the third group (learner's organizational) include:

- Reliability of technology on the learner's side. Frequent failures of technology are a source of frustration and ultimately of dropout from the course. (Wiesenberg, 1999; Virkus, 1997)
- Speed of the Internet connection. Especially in countries with a weaker infrastructure like Slovakia, the connection speed can play a significant role in the student's experience. (Wiesenberg, 1999; Virkus, 1997; Harasim et al, 1995)
- Access to technology. Access to technology is a basic condition for taking an online course. However, depending on institutional settings and individual circumstances – access at the workplace, school, local library, community center, etc., there can be great variations and limitations for this access. (Davis & Ralph, 2001; Virkus, 1997; Harasim et al, 1995)
- Support from employer. The approach of a learner's employer to employees taking online courses can play a very important role. Whether an employer would make arrangements for better access to technology, reduced workload, etc... (Pettit, 2002; Tresman, 2002; McAlister, 1998)
- Influence on job promotion. The possibility of job promotion or options for getting a better job after completing the course can play an important role in a student's motivation (Pettit, 2002; Tresman, 2002)
- Influence on salary. If the completion of the course can lead to a salary increase, impact on student's motivation can be significant. (Pettit, 2002; Tresman, 2002; McAlister, 1998)
- Support from colleagues. Support or resentment of colleagues at the learner's workplace can influence motivation as well. (Tresman, 2002; McAlister, 1998)

This list of summarized issues, which might influence the experience of students in online courses, formed the basis for development of interview questions and questionnaire items for my study.

In the following chapter I examine Slovak education, the situation in which university teachers and students and primary and secondary teachers work. I provide basic information on political context and economic circumstances, information on the higher education system, its recent changes and problems, and brief information on adult and distance education. Information on Internet infrastructure and connectivity of universities and primary and secondary schools is included as well.

CHAPTER FOUR

SLOVAKIA – CULTURAL, HISTORICAL AND ECONOMIC CONTEXT IN EDUCATION

This chapter provides a detailed picture of current conditions in which universities, faculty, students and secondary schools teachers, teach and learn in Slovakia.

Recent Political and Economic Circumstances

The Slovak Republic was created in January 1993 when Czechoslovakia was split into the Czech Republic and the Slovak Republic. At the time, Slovakia was run by ex-leaders of the pre-1989 communist regimes. Prime Minister Vladimir Meciar was not unique in replacing socialist authoritarianism with populist nationalism. Similar tendencies existed in Alexander Lukashenko in Belarus, Franjo Tjudman in Croatia and Slobodan Milosevic in Yugoslavia. The political style of Meciar's government was nested in majoritarianism, corruption, lack of consensus-seeking and widespread disregard for minority opinions (Frydman, Murphy & Rapaczynski, 1998). Western democracies grew concerned and reminded Slovak officials that integration with the rest of Europe required democratization.

In September 1998, a broad opposition won general elections but was mired in difficulties. The economy was flat and Slovakia was excluded from the first group of accession countries inducted into the *European Union* (EU) and *NATO*⁴. The coalition government was broad and not able to easily make strategic decisions. As a result, there have been slow and in many cases only partial changes⁵ as election promises were overwhelmed by expediency.

Elections in September 2002 were shrouded in a nervous atmosphere. Meciar's party maintained strong support and EU and NATO officials stated very clearly that in the case of his victory there was little chance of Slovak accession to either organization. However, election results came as a pleasant surprise. According to The Washington Post "Slovaks voted this weekend to stick with a

⁴ Czech Republic, Poland and Hungary became NATO members in 1997.

moderate, reformist course toward NATO and the European Community, giving four centrist and conservative parties a narrow majority in parliament.” (Kaiser, 2002). Three of the new government coalition parties used to be a center-right part of the previous broad coalition of 1998 – 2002. In October 2002, the European Commission recommended EU accession for Slovakia in 2004 along with nine other countries (Meseznikov, 2002). At the NATO Summit that followed in Prague in November 2002, Slovakia received an official invitation for NATO membership.

The basic directions of economic transformation are (Hrabinska, 1996):

- broadening of ownership forms and enforcement in the private sector. Privatization was highly politicized and became the source of many corruption scandals.
- creation of a competitive free-market environment.
- structural changes of the Slovak economy which used to be oriented mainly toward heavy industries towards a more diverse and flexible structure
- creation of conditions to boost international recognition and promotion of Slovak products on global markets
- new conditions and requirements for human resource development.

Table 1. Economic Indicators of Slovakia

| | | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 (first 6 months) |
|-------------------------------|-----|-------|-------|-------|-------|-------|-------|-----------------------|
| Real GDP growth | % | 5.8 | 5.6 | 4.0 | 1.3 | 2.2 | 3.3 | 3.9 |
| Inflation (yearly difference) | % | 5.8 | 6.1 | 6.7 | 10.6 | 12.0 | 7.1 | 3.9 |
| Unemployment rate | % | 11.3 | 11.8 | 12.5 | 16.2 | 18.6 | 19.2 | 19.0 |
| Average monthly salary | USD | 266.0 | 274.4 | 283.9 | 259.0 | 247.4 | 256.0 | 270.0 |

Source: Kollar and Meseznikov, 2002

⁵ Good example is the new Act on Higher Education, which was only adopted at the end of 2001 and most radical proposed changes were eliminated within political fights as described later in this chapter.

After the governmental change in 1998, macroeconomic restrictive measures were necessary, and are reflected in these indicators. The effects were further enhanced by the global effect of the events of September 2001. However, year 2002 indicates growth, and the prognoses for the coming years are rather optimistic.

Higher Education Before 1989

Since the creation of Czechoslovakia in 1918 however, education standards have been regularly lower in the Slovak territory when compared to Czech areas - historically the most developed parts of the former Austro-Hungarian Empire. The first Slovak universities were established after 1918 with the help of Czech academics. It is because of this help that Slovakia once had an advanced system of higher education. In many aspects, this level of quality in the Slovak education system has endured. However, during the communist era, the structure of education changed according to the needs of the Communist Party. Before 1989, the educational system of then Czechoslovakia was considered "good" by both its population and local experts (Rosa & Soltes, 1999). Though it should be noted that all the reforms in education following 1948 had been conducted under guidance of the ruling Communist party and the education resulting from these reforms had to be evaluated positively by "officially recognized" experts.

It is as well noteworthy here that the monopoly of the communists was present in all forms of education. Education was the most important tool of the brainwashing strategy applied on common citizens. The structure of education was organized very strictly according to the Marxist-Leninist ideologies that were the constitutional foundation for the whole Czechoslovak educational system. Another important feature was that all levels of education were free of charge. In addition, the leaders of the communist party influenced decisions as to who should be "successful" at entrance exams; children of people loyal to the regime used to get additional "points" at the exams.

Some of the Universities⁶ offered a so-called part-time study free of charge for adults. However, access was limited and hence mostly filled by Communist party

⁶ Mainly Law and Arts faculties and Technical Universities

members privileged by the regime⁷. In many cases teachers were told that their "important" students could not fail at the exams whether they learned something or not. Since this was commonly known, the part-time degrees were famous and often joked about for the low level of knowledge of their graduates⁸.

Changes in Higher Education after 1989

Since 1989, the opinion that the educational system is good and does not require any special reforms has continued to prevail with a large part of the population in Slovakia (Rosa & Soltes, 1999). The transformation of the political and economic system has naturally influenced education, research, science, and many other areas. Investment in education and science, however, decreased as a result of the decline in economic production at the beginning of this transformation process.

Some positive and negative changes in education in Slovakia after 1989 (as summarized by Rosa & Soltes, 1999) are as follows:

- The possibility of studying at secondary schools and universities has gradually increased⁹;
- The state monopoly in education has come to an end, paving the way for the establishment of religious and private schools. Since 1996, even universities can be private (but in reality, so far only less than 10% of high school students attend non-state schools, and the figure for universities is less than 1%);
- The educational programs and syllabi are less uniform and teachers have more freedom in choosing pedagogical methods;

⁷ Very often a high position at a state factory was given to a communist party member as a reward for his party work, who unfortunately lacked any of the higher education necessary for the position. A resolution was at least to formally become a part time university student showing willingness to improve education, which was enough to get the position.

⁸ One joke for illustration: What is the difference between a nightingale and a sparrow? Not much, both studied singing, but the sparrow was in a part-time program.

⁹ Thanks to the small capacity of universities as well as high schools, access to study is possible only via entrance exams, where only successful candidates can study. In some specializations where the interest for study is high (mainly in social sciences and humanities), the chances for being accepted are about 1:10 or even lower.

- The general conditions for school and university teachers have changed. The evaluation of teachers is no longer linked to their "political orientation or engagement". However, for a long time the average wages in the education system have been below the national wage average and this is the primary reason why many competent and skilful academics are leaving this sector. This "internal" brain drain is negatively influencing the quality of the entire educational system;
- After 1989, universities regained academic freedom, wide autonomy and democratic methods of management. It has not been possible however; to repair all the deformations caused by totalitarian regimes (both fascist and communist) that ruled Slovakia between 1939 and 1989.
- In the financing of education, no systematic solution has been found thus far, and the state budget support for education and research has significantly decreased. Practically everything is still funded by the state. However, up to 2002 the method of distributing state funding has not been made any clearer or more impartial. There is a possibility of some additional funding from short-term research and course development grants offered by the European Union Funds or independent donors like the Open Society Foundation. However, these funds are very scarce and do not have any significant influence on the system.

According to recent Slovak legislation, study at state universities must be free of charge for all citizens of Slovakia. Only international students can be formally charged tuition fees.¹⁰ Since the interest for study is much higher than the number of places at state universities¹¹, many universities have found an unofficial way to charge fees for part time study. One very common practice is cooperation with private companies for part-time study. In this arrangement, the University accepts students for part-time study free of charge, with a condition, that students

¹⁰ However, only three faculties of Medicine among all Slovak universities are able to receive significant numbers of international students. Everywhere else, these numbers are rather low.

¹¹ Although the number of university students has increased by more than 70% between 1990 – 1999 (according to the Strategic Proposal for Higher Education, 2000), still the

will take lectures and exams through the partner company - where they pay for it. After collecting fees from the students, the company pays honoraria to university teachers teaching within the program and as well gives some sponsor gifts to the university. Of course, within this arrangement it is not possible to find out how many students really study in these part time programs and how much money they pay. According to a survey conducted by the Ministry of Education in 2001 (Fronc, 2001), there are over 30,000 part-time students paying fees from 10,000 to 38,000 Slovak Crowns per year.¹²

In 2002, a new Act on Higher Education was accepted. The creation of the Act was preceded by a few strategic and analytical materials of very high quality.

The Millennium Project (Rosa, Turek & Zelina, 2000), published by the Ministry of Education was the first official material to summarize clearly and openly all the main problems of Slovak Education. However, it only roughly outlined paths towards solutions. Millennium Project was presented for public discussion on the Ministry's website. The Ministry of Education received over 700 comments and recommendations on the Project. The comments and recommendations were reviewed by expert committees at the Ministry, and in March 2001, the Ministry of Education published a new version of the Millennium Project under the name "National Program for Education in the Slovak Republic" (Rosa, Turek & Zelina, 2001).

The Millennium Project dealt with the whole complex educational system in Slovakia. In March 2000, the Ministry of Education released another strategic document focused only on higher education - a Strategy Proposal for Development of Higher Education in Slovakia in the 21st century. Among the crucial tasks recommended by the Strategy Proposal for implementing the reform are:

- separating higher education institutions according to their missions and objectives, as well as the quality with which they pursue these
- gradually increasing the number of students and the quality of their education

number of students who applied to study in a university and were not accepted because of the low capacity of tertiary educational institutions, was about 40 – 45%.

¹² 10,000 - 38,0000 Slovak Crowns is equal to USD 200 - 660.

- capitalizing on the potential on new information technologies in order to fulfill the mission and functions of higher education institutions
- arranging multiple-source financing for the higher education system

After all these strategy materials and discussions, the hopes for the new Higher Education Act to help to resolve many problems within the system were rather high among the academic community. However, soon after the first draft of the new Act was published in 2001, it became clear that some aspects of new Act were becoming much more part of pre-election campaigns for politicians rather than the object of rational discussion by experts. The most discussed part of the Act was a proposal introducing a symbolic tuition fee for the students. The Act's draft contained three options for fees:

- Students in full time study as well as part-time study will pay partial tuition fees, while for disadvantaged students the fees can be reduced or released.
- Full time study will be free, there will be tuition for part time study (which would legally formalize the present situation)
- All form of study will be free of charge

It soon became clear that the first option is politically dangerous since the idea that education is supposed to be free of charge seems to prevail very strongly within the general population (Meseznikov & Ivantysyn, 1999). Heated political discussion in newspapers between politicians and experts favoring the second and third options had run through the autumn of 2001 (i.e. Danis, Fronc, Ftacnik, Kotian, and Lesko). In the end, the argument that all forms of education should be equal prevailed and the new Act No. 131/2002 on Higher Education clearly stated that all forms of university education at state universities must be free of charge for Slovak citizens.

Although in the end the Act did not introduce funding for help with part part-time tuition fees, which would actually help students to access education, it has addressed some of the problems:

- it introduced diversification in higher education institutions - public, state and private higher education institutions are recognized, as well as university and non-university higher education institutions

- it clarifies responsibilities and competencies of deans, rectors, academic senates and scientific councils
- status of University Board was introduced where, in the case of a state university, one member will be nominated by the academic senate and others by the Ministry of Education and the rector.
- rules and conditions for opening private higher education institutions are clarified and simplified
- appointments of professors and assistant professors may be made for five years at the longest - only after the third five-year appointment, a tenure work contract can be signed.
- besides the already existing accreditation system for faculties, a regular evaluation of study programs was introduced.
- the Act introduces a completely new funding structure for higher education. A difference from the previous arrangement is that state universities will own the assets they are using and will be allowed to generate additional income by renting classrooms and equipment to other institutions for workshops or training. Funding from the Ministry for universities will be provided in more clear structure.

Continuing Problems of Slovak Higher Education

The new Act addressed some higher education problems, but definitely did not and could not resolve all of them. It is possible to summarize the remaining and most pressing problems of higher education after acceptance of the new Act as follows (Rosa & Sefranek, 2002, Beblavy & Kubanova, 2002, Pisut et al., 2002):

- **Financial Problems.** During the last twelve years state funding for higher education decreased from 1.05% GDP to a recent 0.64% in 2001¹³ (Pisut et al., 2002), although the number of students at Slovak universities has increased from 52,000 in 1990 to about 120,000 in 2002, 30,000 of which study in part-time forms (Fronc, 2001). Along with a general lack of funding sources, spending is highly ineffective.

¹³ Average spending for higher education in OECD countries was 1.33 % of GDP in 1998

- **Staff Problems.** Due to the lack of funding, universities face serious brain drain problems among Ph.D. students and young teachers. In many departments the average age of employees is far over forty and universities can face a serious lack of quality teachers within the next two decades. Brain drain is a serious problem for the whole region of Central and Eastern Europe. However, very often Slovak Ph.D. students give their first reason for leaving as “conditions for research work” (Brain Drain, 1997), which indicates not only financial reasons, but an unmotivating system as well.
- **Atmosphere.** The position of university teacher does not carry very high respect in the Slovak society. Before 1989, manual workers were preferred as the “leading class of socialist society” and until now traces of these preferences are still visible in salary structures,¹⁴ as well as in a general disrespect toward educated people in the society. As well, due to low salaries at the universities, teachers are forced to search for additional incomes in commercial activities; very often the “second job” is becoming more important than the teaching which influences teaching quality. Based on a new Act on “Public service”, salaries of teachers were increased by 20 - 30% on average, as of January 1st, 2003. This improves the situation, but does not resolve the problem entirely.
- **Structure of Universities.** Before 1989, the bachelor degree did not exist within the Slovak system. Still at present only 5% of university students in Slovakia study in bachelor programs, while the international average is about 50%. Meciar’s government created in 1994–1997 a number of new small regional universities, which have problems to accredit their programs, but most of them are still trying to offer at least some master’s graduate programs in an effort to be a “real university”. Many new small regional institutions have significant problems with the quality of their programs due to the lack of teachers. The new Act in 2002 introduced clearer distinctions between bachelor and masters degrees and improved accreditation rules, which will put more pressure on lower quality institutions to stick with

bachelor degrees only. As well, according to the new Act, every university offering a masters program must offer bachelor degrees too. These new regulations will undoubtedly help to shift proportions more towards bachelor degrees, although as with any systematic change, this will take some time.

- Quality assurance. Most of the criteria for program accreditation are based on quantitative (number of professors, docents) rather than qualitative (curricula) indicators. Hence, the quality of study programs at different state universities varies significantly. Distribution of state funding between universities is done mainly according to the number of students and the technical needs of specialization. The new funding factors introduced by the New Act in 2002 to influence quality depend on numbers of docents and professors, but still roughly the state provides the same per student funding to all institutions.¹⁵

The continuing problems of a lack of funding and a lack of skilled teachers, and hence a lack of quality in teaching, present major obstacles for all kinds of innovations in teaching at the universities. This is even more applicable to development of online learning.

Adult and Distance Education Offered by Slovak Universities

Adult or part-time education at the university level before 1989 was famous for its low quality. After 1989, when the labor market started to change and the need for re-qualification gradually increased, private companies and non-governmental organizations offering training and short courses started to appear very fast. Universities were rather slow to adjust to the change. They had no financial motivation to offer short courses, since according to older legislation (prior to 2002) they were not legally allowed to keep income from short non-degree courses or from renting their premises.

Interest in university study is growing. However, due to lack of funding the space is limited. Exact numbers are not available, but estimates indicate that about

¹⁴ The pay of a teacher is lower than a pay of a bus driver, and is substantially lower than the pay of a rank-and-file police officer, a customs officer or a fireman (Kotasek, 1999)

42% of applicants cannot be accepted to study due to the lack of space (Pisut et al. 2002, Holubcik, 2002). Under this pressure, as mentioned above, most universities found a way to introduce paid part-time bachelors and masters degree study in cooperation with private companies.

This increased need for greater access to education, combined with the limited capacities of classrooms and student housing, suggests a high potential for development of online learning. Actually, some analysts consider online learning a suitable resolution to the problem of access (Pisut, 2000, Kejak & Ortmann, 2000).

Still, existing external forms of study are widely considered to be of a lesser quality. One reason for this opinion is a heritage of famously poor part-time programs offered before 1989. A second reason is the fact that these programs are mostly attended by students who did not succeed in entrance exams to get into “regular” full time programs, hence, these are considered to be programs for “second class” students.

This assumption of lower quality is being transferred to distance courses offered by universities for businesses and continuing education programs for teachers.

It is necessary to mention that in most cases these part-time study programs consist of after hours and weekend classes with students using the same study materials as full time students. Real distance education courses are offered only on a very small scale mostly through distance education centers created within the Phare¹⁶ European Union project.

Since many of the learners in the online courses participating in this study are teachers at primary and secondary schools, let's look closer at the continuing education of teachers. Changes at high schools are even slower than at universities. Before 1989, many high school teachers who graduated from university would create a teaching routine within the first few years and keep repeating it until

¹⁵ The coefficient of economic demand for each specialization was introduced too, which takes into account laboratory needs, chemicals, biology materials, etc.

¹⁶ The Phare program started in early 1989, its name created as an acronym for Poland and Hungary Assistance Restructuring Economy. At the end of 1989, when then Czechoslovakia and Romania changed their political regimes, these countries were included in the program as well, and the name stayed the same, although no longer used as an acronym.

retirement. However, social changes after 1989 and rapid development of information and communication technologies and options offered by the Internet are increasing pressure on teachers to continue their education and change their teaching styles.

As well, there is motivation through salary increases connected with exams and degrees recognized by the Ministry of Education. According to Regulation No. 41/1996 of the Ministry of Education, continuing education of teachers at primary and secondary schools contains three stages: First Qualification Exam, Second Qualification Exam, Ph.D. degree. Preparation courses for First and Second exams can be conducted by universities or special teacher training centers under the Ministry, Ph.D. degrees are provided by universities only. Ph.D. degrees for teachers are formal study programs, while qualification exams can be undertaken without participating in any program. However, only teachers with teaching experience longer than five years can apply for the First Qualification Exam. For the Second Qualification Exam, teaching experience must be over ten years.

The remainder of this chapter will focus on Internet infrastructure in Slovakia.

Internet Access in Slovakia

Internet penetration in Slovakia keeps growing despite high prices. According to regular surveys conducted by Taylor Nelson Sofres Company in June 2002, 22.9% of the Slovak population claimed to have experience working with the Internet. In September 2002, it was 28.5%, and in December 2002, 30.8%.

However, when compared with other countries in Central and Eastern Europe, these numbers are not very optimistic. In 1999, the European Union started project eEurope with the ambitious goal of getting all Europe online. The affiliated program eEurope+, monitors Internet penetration in candidate countries. In June 2002, the first progress report on candidate countries was published. According to the progress report, candidate countries fall into three groups. The first group contains Malta, Cyprus, Slovenia and Estonia, which in most indicators such as Internet, computer and cell phone penetration, are already above the European

average. Slovakia, together with Czech Republic, Hungary, Poland and others belong to the second group, which is coming close to the average in some indicators and still behind in others. Third, the weakest group contains Bulgaria, Turkey and Romania. The Progress Report confirmed that although in most of indicators Slovakia is “average” among candidate countries, in some areas it is falling behind. One of these areas is in the number of people connecting to Internet from home. With 7.8% of the population connecting to Internet from home (Taylor Nelson Sofres plc., 2002), Slovakia is in 12th position out of thirteen countries (eEurope+ 2003 Progress Report, 2002).

Reasons for poor connectivity from home are most probably the high prices of the monopolistic phone company Slovak Telecom. Independent of the Internet Service Provider fees, Slovak Telecom is charging every user a per-minute fee for using the phone line. Phone fees for Internet connection have increased three times within the last year. According to recent prices, browsing the Internet using a modem connection from home costs about 60 Slovak Crowns (1.5 USD) per hour during working hours and about 30 Slovak Crowns (0.75 USD)¹⁷ per hour during weekends and holidays. ISDN prices are about the same and ADSL lines have not been introduced in Slovakia yet.

As in many other countries in the world, the Internet in Slovakia started to develop mainly as an academic network at the beginning of the nineties. In 1991, the Slovak Ministry of Education allocated funding to develop SANET, Slovak Academic Network, to get all universities in Slovakia online. In 1994, all Slovak universities were connected to the Internet and in 1995, SANET started to provide Internet services to the public, as well. In 1997, SANET initiated creation of the Slovak Peering Center among different Internet Service Providers to enable faster data exchange within Slovakia. In 2001, the Government approved a significant upgrade of SANET's backbone and in 2002 SANET switched to new lines with 1 Gbps speed for universities in Slovakia. However, although Ministry of Education has provided funding for SANET to get universities and academic research institutions online, this support did not include primary and secondary schools.

¹⁷ Comparing to Slovak average monthly salary of 270 USD, these numbers are rather high.

Activities directed to getting primary and secondary schools online started in different countries in Central and Eastern Europe in the middle of the nineties. In many cases, (Romania since 1994, Poland since 1995 and Slovakia since 1996), these pilot initiatives were run by the Soros Foundations. In Hungary (since 1997), Slovakia (since 1999), Poland (since 2000) and Czech Republic (since 2002), school Internet connection projects were taken over by the Ministries of Education.

Following governmental changes in 1998, the Slovak Ministry of Education finally took up the idea of getting all schools online and launched project Infovek (InfoAge). Goals of the Infovek project are (Sykora, 1999):

- to equip every elementary and secondary school in Slovakia with a multimedia classroom with high quality Internet access
- to develop modern education curricula for general and specialized subjects at all types of schools
- to train tens of thousands of teachers in integrating modern information and communication technologies and their applications into education
- to build an information society – providing Infovek classrooms to the local community for the development of digital literacy for the inhabitants of all regions in Slovakia

Despite the ambition of being a very comprehensive project, during the first two years, Infovek's efforts were mainly focused on technical infrastructure. By 2002, Infovek provided Internet connectivity, computer equipment and basic computer literacy training to almost 500 schools. In 2003, the number of connected schools should increase to 1000, which will be about 30% of all elementary and secondary schools in Slovakia (Sykora et al, 2003). In 2003, Infovek is planning to develop some online courses for teachers.

On top of the Ministry of Education's efforts via Infovek, in 2002 the Slovak Prime Minister declared initiative eSlovakia. The goal of eSlovakia is to improve Slovakia's score within the eEurope project. ESlovakia is supposed to be a broad partnership of the Government, commercial companies and other institutions, with the goal of improving internet infrastructure, internet content and internet training (eSlovakia, 2002). The first company to officially join the partnership was Slovak

Telecom, who announced a special reduced connection fee of 1000 Slovak Crowns per month (25 USD) for all schools, as of January 2003¹⁸. This can significantly increase the number of connected schools. This, however, has been the one and only result of the so widely promoted eSlovakia initiative.

The following chapter focuses on online learning context in Slovakia. At the end I summarize the Slovak obstacles to online course development as derived from data provided in the third and fourth chapter.

¹⁸ Regular non-reduced price for leased line connection is about 250 USD per month per school.

CHAPTER FIVE

ONLINE LEARNING IN SLOVAKIA

This chapter provides a history and recent situations in online learning in Slovakia, and summarizes the barriers and obstacles to online learning development based on cultural, economic and historical contexts.

European Union Project 1995 – 1999

In the early 1990s, the European Union (EU) started to invest in development of pre-accession countries in the region of Central and Eastern Europe within its Phare Program. One of the projects within Phare was called “Multi Country Cooperation in Distance Education”. One aim of this project was “promoting co-operation in the area of distance education among EU accession countries, including the promotion of cooperation between the Phare region and EU member states.” The program should “specifically support the establishment of a trans-regional distance education infrastructure and the development of the portfolio of distance education and training courses in the Phare countries” (Phare Multicountry Programme... 1997). A budget of four million ECU (European Currency Unit – predecessor of Euro) was allocated for the project for the years 1995–1999.

This project offered to build completely new distance education programs in cooperation with EU partners, based mostly on the United Kingdom’s Open University model, which is spread around Europe. However, in Slovakia, the interest among universities in this project was not very high. Universities mostly felt like having enough problems to transform their curricula rather than move into changing the form of delivery. Actually, only a few universities, almost all technically oriented, applied for participation in this project.

Within the Phare project the Slovak Network for Distance Education was established in 1996. It consists of:

- the National Center for Distance Education which has a seat in the Slovak Technical University (STU) in Bratislava

- local centers which are based in the Faculty of Electronics and Informatics, STU, in Bratislava, the University of Agriculture in Nitra, the Technical University in Zvolen, the Technical University in Kosice and at the University of Zilina.

This organization has supported publishing of methodological materials and organized seminars and conferences targeting distance learning problems. Several new courses in text-form have been developed and about 1000 students have participated in them. However, the number of courses that work on an Internet base is much lower.

Actually, up until the end of the Phare program in 1999 only three courses of this kind had been introduced in Slovakia. Since all these courses were developed and offered in cooperation with institutions from different countries, they were created only in English - no Slovak version was introduced. This limited the numbers of interested participants.

In 1999, when the Phare program had officially finished, a network of distance education centers remained in place, each as a part of their host university's infrastructure. The centers have been equipped with information technology and employees were trained in online course development, but universities did not have funding and in some cases, not much interest to move into developing their own online courses.

Commercial Online Learning – Cisco Networking Academies Program

Online learning is in its early phases in Slovakia, and not only in the academic community. There are some enthusiastic speeches and presentations given by managers of different companies about the bright future of online learning, but in reality, the offerings of courses is still rather limited. The only commercial online learning project, which has recently started up successfully spread around, is the Cisco Networking Academies Program (CNAP).

CNAP is an online learning program in network technologies conducted in partnership with Cisco Systems and educational institutions (universities or secondary schools). Cisco Systems provides the course content, helps to train the

teachers and to acquire technology. The schools need to provide space, teachers and to fund subsidized training and equipment. Graduates of the training receive Cisco Systems certificates, which are valid worldwide. The CNAP program started worldwide in 1997, with its first activities in Slovakia initiated in 1999 by the Technical University in Kosice, where the first regional CNAP academy for the Czech and Slovak Republics was created. Currently, a network of three regional and 27 local CNAP academies offer courses to over 800 students in Slovakia (Jakab et al., 2002). Still, most of the online content of CNAP courses is offered in English.

Open Society Foundation IDEP Project

The Open Society Foundation Bratislava is part of the Soros Foundations Network – an informal network of non-profit foundations created by the philanthropist George Soros in over 30 countries mainly in Central and Eastern Europe and the former Soviet Union. The Foundation in Bratislava was created in 1992. Its main goal is to “amend defections, support democratic and liberal values and promote equal opportunities” (Open Society Foundation, 2002)

Internet Distance Education Program (IDEP) of the Open Society Foundation was launched in 2000 and is planned to be closed in 2003. The project objectives are:

- to spread knowledge about modern forms of distance learning
- to support expansion of distance learning towards forms that apply to the Internet
- to support enlarging university studies with forms that apply to the Internet as a complete part of education
- to help this means of education find its way into the humanities where the situation is worse due to insufficient equipment and a lower preparation level of people using the information and communication tools.

The IDEP program was planned and implemented in cooperation with Distance Learning Centers of the Slovak Distance Learning Network created within the Phare program. Centers were equipped with technology and employees were trained, but following the closing of the Phare program, employees of these centers

lacked activities to participate in. A large training program for authors, tutors and managers in online learning was launched through the Centers.

Still the main activity of IDEP program was grant support for development of online or combined courses at different institutions in Slovakia. The basic idea was to help universities with development costs of their new courses, hoping that covering running and updating costs will be easier for them without more support from the Foundation. In 2000, grants were provided for thirteen courses, in 2001 for nine, in 2002 for fifteen. The first pilot trials of courses, which received support in 2000, were in most cases conducted from September 2001. The first evaluations could take place only after pilot runs were complete in 2002. These were the first online courses offered fully in Slovak in Slovakia.

However, the slow shift of approach to online learning among distance education practitioners is visible within the last few years. In 2000, the Slovak Network for Distance Education held a conference focused on online learning in Bratislava called "Virtual University", where participants of the Phare program from countries of Central and Eastern Europe presented their results and experiences. Almost all presenters at the conference focused on the technical side of online learning – how to set up a system, how to create software environments, how to start up, etc. From 2001 on, the Virtual University conference became a part of the IDEP program. At the latest conference, held in March 2002, most presenters dealt with their experiences from running first courses, talking about all kinds of problems that appeared on the way, developing evaluation structures, etc. Technical issues became only one part of a complex issue.

When introducing the first online course funded by IDEP at the Technical University in Trnava, its authors conducted a survey asking first year students entering their university about their knowledge and interest in online learning. They discovered that 96% of students were interested in using computers for their study, but only 30% of them had heard about online learning. Still 55% of incoming students said that they would be interested in taking an online course (Ozvoldova, 2002).

Beliefs and Assumptions

Experience with online learning at Slovak universities is rather low and the community of professionals actually working in the field is rather small. Most of the academic community has already heard something about online or virtual education, but having no real experience or extensive theoretical knowledge they tend to belong to overly enthusiastic or overly skeptical groups.

Some of the enthusiastic ideas are based on the potential of online and distance learning to increase access to education. In the chapter on Tertiary and Adult Education of The National Program of Education (Rosa, Turek & Zelina, 2001), among the proposed goals were:

- the necessary increase in the number of students accepted to post-secondary study;
- each student needs to have Internet access that would open possibilities for external and distance virtual education in Slovakia.

The recent Strategy of Informatization of Society (Institute of Informatics and Statistics, 2003) says it even more clearly: "These systems (multimedia and distance educational applications) are used mainly in adult education, but this approach could be an appropriate way to increasing numbers of students."

The idea that online learning can be a very simple and cheap way to enable universities to increase numbers of students without a need to invest in new classrooms and housing is quite obvious (Pisut, 2000).

Another enthusiastic theory suggests that online learning can be a way to solve the human capital mismatch problem in transitional economies in Central and Eastern Europe. Kejak and Ortmann (2000) see online learning as an ideal tool to overcome the "continuing drifting apart of the frontier of theoretical knowledge and actual knowledge". Their hypotheses are based mainly on assumptions that:

- most online courses offered by commercial companies are covering exactly those skills on the "knowledge frontier" which are most needed in Central and Eastern Europe (business management, information technology, etc.)

- countries of Central and Eastern Europe lack skilled trainers and teachers in these new fields. Since online learning is not bound by location, it can successfully overcome this gap.

Skeptical groups towards online learning in Slovakia are described by Huba (2002, p.20) as "...group [that] resists any change in education. The resistance is mostly given by subjective fears (loss of position, lack of knowledge). In general, representatives of this group have only a very poor idea of the new educational framework and argue the disadvantages of the new approach through simplified and unrealistic situations (e.g. that it is not possible to study engineering without laboratory work – but, in reality, they have no idea how the laboratory work is organized within the online learning institutions and that it can be done even more effectively and efficiently!)".

Reasons often given by skeptics for resisting considerations of change are low access to technology in Slovakia, lack of technical knowledge among potential students, high initial infrastructure costs for institutions providing courses and strong traditions in Slovakia against independent work of students.

However, professional discussion in Slovakia on online learning has been strongly influenced by techno-zealot discourse, mainly due to the fact, that progress in this field has been advanced mostly by practitioners from technical universities with high enthusiasm towards technology, but without much interest in its social implications or teaching approach. Recently, though, a greater diversity in the discourses is appearing, and articles and studies presenting other positions can be found (for instance, Ozvoldova, 2002, presenting a Techno-utopian position, or Dado & Drozdova, 2003, presenting a Techno-structuralist position).

Summary of Slovak Obstacles to Online Learning Development

Chapters three and four have presented a view of the situation in Slovak education to provide an overall picture of the obstacles and barriers to the development of online learning in Slovakia. When summarized, these barriers can be divided into technical, socio-economic, and cultural.

Technical barriers include problems with access and the reliability of computers and the Internet. However, all universities in Slovakia were connected to the Internet and provided with basic equipment to use it by the Ministry of Education through SANET. Primary and secondary schools started on the path towards full Internet connectivity only a few years ago, thanks to Infovek and eSlovakia, and are moving along as well. Of course, technological development in these fields moves fast and due to persisting financial problems it is not possible to be “up to date” with the quality of equipment, but the improvements are continuing.

Socio-economic barriers include the fact that young teachers do not usually stay at the universities due to financial and motivational reasons, hence most teachers are older with less technical experience or openness to innovations. As well, these teachers are underpaid, and in many cases are holding additional jobs to improve their living standards, leaving them with little or no time and energy for new technologies and programs. As well, there are no incentives, such as bonuses or grants, for teachers within the system to push for innovations. Although, this is hopefully slowly starting to change. For instance, as of 2003, KEGA, the grant agency funded by the Ministry of Education, included online courses among its priorities.

Cultural barriers are represented primarily by the label of poor quality typically assigned to all forms of distance education. As well, a strong role is played by educational traditions that do not encourage independent thinking, and by the autocratic style of teachers, and as a result, many students are not used to expressing their views. Of course, this is not valid for all teachers and all universities. There are islands of change growing within the educational arena, most of them started thanks to funding from EU programs, USAID, or independent foundations.

The next chapter describes the study methodology beginning with courses used for research, structure and participants of interviews, through developing questionnaires based on interview results to process of sending out and collecting the questionnaires.

CHAPTER SIX

METHODOLOGY

This chapter provides a detailed description of research methodology. It starts with a description of courses, mentions my position within the setting of the research, describes process of developing and conducting interviews, provides overview of interview results and describes questionnaire development. Lastly, the process of collecting questionnaires is described.

Courses Used for Research

The Open Society Foundation within its Internet Distance Education Program (IDEP) supported thirteen course development projects at five different higher education institutions in Slovakia between December 2000 and December 2001. Mostly these were courses combining face-to-face and Internet components (considering the relatively small distances within Slovakia, this seems to be a logical direction to develop). However, in many of these courses the face-to-face element prevailed and the Internet played only a supporting role. In other cases teachers only copied their regular classroom lectures on the web and called the result an online course. For the purpose of this research I included only courses where the online part played a major role and materials on the web could be considered a course rather than texts of lectures. Face-to-face meetings were supplemental – generally face-to-face meetings amounted to no more than an introductory workshop and an exam at the end of the course.

After excluding those projects whose results were only supplementary materials for face-to-face training, or could not be considered an online course, I ended up with four courses from three different higher education institutions in Slovakia. All four were developed between December 2000 and December 2001 and were first offered to students between September 2001 and September 2002. A second offering of some of them was run between September 2002 and December 2002. The institutions received financial support for development and pilot run costs from the Soros Foundation, so the first courses were offered to students free of

charge. Target groups for these courses were high school teachers or full time university students.

A detailed description of each of the courses follows:

Evolution of Social Behavior (ESB) – Comenius University, Bratislava. This was a four month long, fully online course with no face-to-face meetings. The course authors created their own complete online environment in the Slovak language. The course content contained short text modules with downloadable video for illustration (downloading of videos was optional, depending on technical equipment and internet bandwidth of students). Each module had a set of questions at the end.

Communication between students and tutors and with each other was facilitated by an e-mail distribution list. During the first part of the course a regular weekly one-hour long text based chat session using IRC software was organized to discuss the course contents. Since some students had technical problems with participating in these live chat sessions, later web-based discussion forums were added to the course.

Content of the course included:

- New paradigms and crisis in social sciences
- Evolution
- Behavior – nature versus nurture
- Xenophobia and group identity
- Sexual behavior and beauty myths

The target group for the course were full time students in their third, fourth and fifth year of study at different departments of the Comenius University in Bratislava. The pilot course ran from October 2001 to January 2002. 35 graduate students participated, with 12 successfully completing the course (34% completion rate).

Internet Innovation of Distance Education (I2DE) – Technical University in Kosice. I2DE is a course on computer literacy. The course started with a face-to-face introductory meeting and consisted of nine online modules from which students could choose. The main media used was a web site, online forums and e-mail.

Course authors created their own online environment in the Slovak language specific for the course. Parts of the course were also offered for study off-line on CD-ROMs. Students using CD-ROM did not access the course web site at all. They used e-mail for communication with tutors and classmates.

Modules included:

- Introduction to Computers
- MS Windows – Basics
- MS Windows – Advanced Course
- MS Word – Basics
- MS Word – Advanced Course
- MS Word – Creation of Huge Structured Documents
- Internet – Basics
- PowerPoint – Creation of Presentation
- PowerPoint – Demonstration of Presentation

The main target group for the course was high school teachers. The group taking the first pilot run was, however, a mix of high school teachers and university administrators.

78 teachers of primary and secondary schools and university administrators started the course in October 2001. 58 of them successfully completed at least three modules and graduated with certificates in May 2002 (74% completion rate).

Use of Internet in Education (UIE), Use of Multimedia in Education (UME) – *Safarik University, Kosice*. Two four month long courses were developed in parallel by the same team at the Safarik University in Kosice. They as well run in parallel as two independent classes. Both contained an introductory face-to-face meeting and a face-to-face exam at the end of the course. These courses emphasized project and collaborative work and contained additional small assignments during the term.

Content of Use of Internet in Education:

- Introduction to Internet (history, services, options for use in education)

- Communication (www, e-mail, newsgroups, FTP, telnet, net meeting, ICQ, IRC, videoconference)
- Teleprojects, cooperation
- Distance education
- Individual projects
- Content of Use of Multimedia in Education:
 - PC graphics, pictures, animation
 - Video sequences, formats and creations
 - Digital sound, formats and recording
 - Creation of Multimedia CD-ROMs
 - Creation and maintenance of complete web sites
 - Individual projects

The target group for these courses was high school teachers. However, the pilot run was tested on full time university students (future teachers) at the Safarik University in Kosice. Both courses started pilot runs on February 17, 2002, with participation of seventeen students each. Sixteen students successfully passed the exam in Use of Internet in Education course and fifteen students finished Use of Multimedia in Education Course. The second run of each course in September 2002 contained eighteen and nineteen high school teachers respectively. However, the final exams of these courses were postponed to April 2003. So although the online part was finished at the time when data were collected, the final exam had not yet taken place, so the completion rates were not yet available.

My Position

I work as a Program Manager for the Open Society Foundation in Slovakia, responsible for creating and implementing schemes to support the development of online learning in Slovakia. I developed a training program and a grant scheme, under which the first online courses in Slovak language in Slovakia were funded. The Open Society Foundation agreed to use results of this research as an enhancement of evaluation of grants provided within the project. Therefore, I could

make use of the Foundation's information on courses, grants and evaluation materials.

This position, as well, provided me with good contacts and opportunities for extensive cooperation on the part of authors and tutors of the courses, which were subjects of this research. This is the only research evaluating the first online courses in Slovakia. I hope there will be many more courses and evaluations in the near future.

Interview Participants

The goal of the interviews was to collect data on the factors, which influenced the online learning experience for the learner in both positive and negative ways. Interview results served as a guide to create a questionnaire. The questionnaire was subsequently distributed to all students who finished the pilot run of one of the four online courses offered in Slovakia between September 2001 and September 2002, and to some of the students who enrolled in the second run of UIE and UME courses between September 2002 and December 2002.

I interviewed eight students who completed the first run of one of the courses offered between September 2001 and September 2002. Each interview took approximately 30 – 45 minutes, notes were taken, and six of the interviews were tape recorded with the consent of the interviewee.

All learners were contacted by their course provider and asked to volunteer for the interview. I chose the eight interviewees from among twelve volunteers with an effort to cover a range in age and gender. The sample consisted of four males and four females, ranging in age from 21 to 58.

There were three male students from Comenius University in Bratislava (Roman¹⁹, 22, Jakub, 21 and Andrej 22) taking the course Evolution of Social Behavior, three females (Gabriela, 58, Alena, 47 and Andrea, 26) taking the Internet Innovation of Distance Education (I2DE) course at the Technical University in Kosice and one male (Fero, 25) and a female (Olga, 22) who took one of two interconnected courses on Internet and Multimedia in Education at the Safarik

¹⁹ All names used here are pseudonyms

University in Kosice. Roman, Andrej and Alena have backgrounds in psychology, Gabriela studied languages, Andrea studied technical sciences, and Jakub, Fero and Olga are students in natural sciences. Alena currently teaches at the Technical University in Kosice, and Gabriela and Andrea work in administration.

Both the I2DE and the Multimedia and Internet in Education courses were designed to provide continuing education for high school teachers. However, there were no high school teachers among the interviewees. The first trial runs of the Multimedia and Internet in Education courses used full time students at the Safarik University, without any high school teacher participation. The first run of the I2DE course included a mix of administrators, university teachers and some high school teachers, none of which volunteered for the interview.

However, all participating teachers (all who were in the first run of the I2DE course and those who took the second runs of Multimedia and Internet in Education) were asked to fill in the questionnaires and actually seemed to respond with much more enthusiasm than the full time students.

Since I choose the interviewees from among the volunteer students taking the first online courses, it felt like I happened to interview the most active and adventurous of this pioneering group. These people were strongly motivated by curiosity, wishing to try something new, and who had been interested in online learning before. They welcomed the occasion to have firsthand experience in online learning and some of them are preparing to serve as online tutors soon. Most of the interviewed learners had no problems with technological inexperience and became those that helped classmates to deal with problems. Hence, they were able to describe all these issues within the interview as well.

Interview Structure

Interviews were guided and semi-structured with the basis of a set of questions which were not always followed literally. Students were probed for details and explanations, asked about their feelings, and given questions to which they could not answer with a simple "yes" or "no". The guiding structure for the

interview was based on the summary of issues influencing learner experiences as extracted from the research literature in Chapter 2.2.

However, since the courses which I used for research were all funded within the Open Society Foundation's IDEP program, and hence offered in pilot runs free of charge, with free access to computer labs and even free copying of some literature, the questions about course costs became irrelevant in this case. The list of issues discussed during interviews was as follows:

Introduction

- Why did you decide to participate in an online course? What was your motivation?
- What is your educational background and work experience?
- What were your expectations?
- Issues that facilitated the experience
- What about the experience was new and unique to you? Surprising or unexpected?
- What were the most positive aspects of the process and outcome of the course?
- What were most negative?

Influence of issues gained from literature and experience

Tell me which of following issues were influential (positively or negatively) to your experience in the course. Issues could have:

- no influence at all
- medium influence
- high influence

If you feel that there are issues missing feel free to add them.

Course Related Issues: Issues connected with course structure, design and student support

- Availability of course description, goals and expectations, outlines, syllabi
- Initial course orientation (from course providers)
- Respect for previous experience of course participants
- Relevance of media to the course content and setting

- Access to literature, resources necessary for the course
- Feedback from tutors, providing of guidance
- Feedback, interaction with peers
- Integration of different parts of the course
- Structure of the course encouraging student participation and dialogue
- Technical assistance by course providers
- Reliability of technology provided by course organizers
- Policies/Strategies of the course providers/instructors for handling cheating and plagiarism

Personal issues: Issues connected with personal experience, educational background and family situation of the learner

- Course content and structure meeting your expectations
- Feeling that online learning has different educational value
- Flexibility of course timing/schedule
- Saving time by studying online
- Use of Internet resources
- Language problem with Internet resources (most are in English)
- Feeling of information overload
- Support from family
- Support from friends
- Lack of technical experience
- Anxiety, nervousness about managing course technical requirements
- Miscommunication problems due to using technology
- Feelings of loneliness, isolation (physical separation from participants, instructor)
- Shyness to communicate in written form
- Freedom to express yourself better

Learner's organizational Issues: Issues connected with institutional and organizational setting of the learner, technical issues on the learner's end:

- Access to technology

- Speed of internet connections
- Reliability of technology on the learner's side
- Influence on salary
- Influence on job promotion
- Support from employer
- Support from colleagues

Interview conclusion:

- Can you think of anything else that influenced your learning experience not mentioned here?
- From your point of view, which issues could be specific only to Slovakia?
To the region of Central and Eastern Europe as a whole?

Information Gained from Interviews

I used information gained from interviews as an additional source of information for the analysis of influence of course, personal and learner's organizational issues on experience of learners and determining issues connected with cultural background, legislation and economic situation in Slovakia. But on the first place, interview results served as a reference for developing the questionnaire in the second stage of the research. Hence, I provide brief summary of interview results here in methodology part.

Introduction

Introductory questions were included in order to learn more on background and previous experience of participants.

The reasons for taking an online course were mostly based on interest in the content of the course, interest in the new form of study, and in two cases to prepare for tutoring online courses in the near future. Most interviewees knew the course providers and tutors before, or at least had heard about them as being good teachers. Six out of eight interviewees said that their strongest motivation was curiosity.

Knowing the course providers and having some interest in online learning before, most of interviewees declared having quite a realistic picture on what to expect (such as gaining time flexibility, independence and responsibility, as well as

fighting technical problems). All were looking forward to gaining additional time flexibility within the course. For instance, Fero said: "I had very clear idea about the content and instructors. I know them for years. As well, I am interested in online learning, so I had an good idea how it should look like"

Issues that facilitated the experience

As most new, unique and surprising feature all interviewees mentioned the new and different form of interaction with tutors, some noting it as efficient, entertaining and refreshing, some as frustrating. Also mentioned was time scheduling flexibility and higher responsibility for one's own planning.

Two learners said that the most interesting fact was that these courses were connected with a different teaching approach, that the tutor's role has shifted into a facilitator's position and that these courses kept them active and working continuously during the whole term, instead of letting them stay passive for the whole term and then to memorize a huge amount of facts at the end for an exam as is the usual practice at their universities.

Within the most positive features of taking an online course the highest praise was given to time flexibility, interaction and feedback from tutors, and positive, enthusiastic atmosphere within the course.

As most negative feature most interviewees mentioned technical problems and frustrations from misunderstandings in online communication.

Issues connected with course structure, design and student support

Issues in this group varied from course to course depending on its structure. For the Evolution of Social Behavior Course (ESB): The students praised the initial orientation for the course; they were satisfied with the introductory information provided. Also praised were the course content and the multimedia style in which the content was presented. The thought provoking approach of the tutor was also very highly praised. The first half of the course had some technical problems, while the second half, after the discussion forum was finally installed, was noted as very active and interesting. Students complained about the way in which the interaction in the first half of the course was maintained (one hour of chat session per week was not enough to discuss all questions related to the content), about some late feedback

from tutors, about the decreasing activity and participation of both students and tutors as the course progressed, and about the switching off of the server for a few days during an office move.

For the Internet Innovation of Distance Education (I2DE) Course:

Participants reacted positively to the modular structure of the content; they really liked the encouraging approach of the tutors, and the fast feedback and friendly atmosphere. Introductory information and meetings were well organized and easily understandable. Complaints were directed to the fast tempo of the course compared to the amount of information within the content, and to technical problems caused by the fact that the course web site was built for the Internet Explorer browser and caused some problems for Netscape users.

For the Use of Internet and Multimedia in Education Courses (UIE and UME): Learners appreciated the content of these two courses and the project based assignments. They liked the fact that these courses kept them active and participating for the whole duration of the semester. The feedback from tutors was fast, friendly and helpful. Students complained about a lack of Internet resources in Slovak relevant to the content and about technical problems caused by limited access to the school's local area network.

Interestingly, students in all the courses dismissed the potential problems of cheating or plagiarism by emphasizing that participation in these pilot trials was entirely voluntary and free of charge, without any significant rewards for finishing or punishments for dropping out. Hence, students were under no pressure to risk cheating their way through the course.

There was one other issue on which all interviewees agreed despite studying in different courses: all said that the interaction between peers was rather low. It seemed like both tutors and students did not think that peer cooperation and discussion could be of any significant use. Some learners said that tutors were not encouraging peer cooperation and providing enough space for it. On the other hand, interviewees noted that some tutors stated that they were trying to encourage students to work together, but that most students seemed not to act on it. One interviewee stated, "My colleague was in the course too and she has dropped out. I

knew she had problems, but we did not talk about it. She never asked for help and I did not feel like making the offer" (Alena). Some interviewees even had the feeling that cooperation would be somehow against the rules, that discussion and cooperation were seen as some type of cheating. One notable comment was, "I was trying to do the course really honestly and fair, I mean not discussing tasks with anyone and do everything really just by myself. I can tell you it was not easy" (Andrea). This seems to confirm the existence of cultural barriers mentioned at the end of chapter four. This issue is worth deeper investigation.

Issues connected with personal experience, educational background and family situation of the learner.

All interviewees said that before signing up for the course they knew the tutors and had some theoretical knowledge on online learning, so their expectations were very realistic. Most of them felt very strongly that online learning has a higher educational value when compared with higher individual responsibility for time management and discipline; graphics were as well helpful to those with good visual memory. However, one learner said that the learning process depends mainly on the qualities and abilities of the teacher and that a face-to-face course with a good teacher has the same value as an online course with the same teacher.

All students agreed that flexibility of their study time played a major positive role in their experience. As well, all said that the only way they actually saved time was by avoiding traveling to the school and through effective management of study time within their schedules, but the overall time spent studying was maybe even longer than it would be in a face-to-face course.

All learners found Internet resources regarding literature for the course, materials for projects, and examples for course content very useful. Students are very obviously divided into those who speak English and those who don't. Non-English speakers complain about poor internet resources in Slovak or Czech languages. Most interviewees were comfortable with choosing information from the course site or the Internet and despite complaining that the pace of the course was sometimes too fast for their taste, they declared having no feelings of information

overload. Some interviewees praised their friends and family for support and patience, and two in particular for providing them Internet access at home.

Older learners complained about being slower with technology: "Older people are very slow in learning these technical things, my daughter would be twice as fast as me" (Gabriela), but none of them said that this would cause a significant overall problem.

All interviewees admitted having some communication problems when communicating with tutors in written electronic form, with some defining their feelings as a "strong frustration" (Roman). However, none had problems with feeling of isolation and shyness (they admitted that it was due to the fact that they knew their tutors personally and that they had enough technical experience). Most of them felt positively about the option to communicate with their tutor in written form, giving them more freedom to formulate their thoughts. In many cases, there was a feeling that discussion in written form is on a higher intellectual and educational level, since people were putting more time and effort into expressing their views in written form than they would in a face-to-face forum.

Issues connected with institutional and organizational setting of the learner, technical issues on the learner's end.

Technical problems have played a significant role in the experience of all the students. Only two of the interviewees were able to access the Internet from home, all others used computers at the university or their workplace. Access from home for those two people was rather limited by the low bandwidth and high phone charges. Those using the Internet from the workplace or university had some problems caused by limited access to computer labs, and different small technical problems with downloading web sites, non-matching browsers, etc.

All of these courses in the pilot runs were offered for free and without any influence on a learner's job position or salary. Only some of the full time university students could get credits for those courses. For most interviewees, these issues were irrelevant. Still one person was very grateful to her colleagues for support.

Interview conclusion

All interviewees listed technical problems – Internet penetration and poor infrastructure as some of the biggest problems for development of online learning in Slovakia. Some suggested inexperience with technology and inexperience with online learning forms of study as significant problems. “Online courses are still very rare and it will take a long time until they will be accepted as a normal and equal thing” (Fero).

Other possible problems mentioned were the fact that Slovaks are not very used to individual responsibility for their learning (caused partly by tuition-free higher education), and the anonymity of online communication as very tempting for plagiarism and cheating.

Questionnaire Development

The questionnaire basically follows the interview structure in order to get a complete overview of students’ problems in those first online courses in Slovakia. Some questions were further defined and specified to address some of the issues, which appeared to be connected with Slovak background situation. Especially questions concerning issues of peer cooperation were elaborated in the questionnaire. On all issues, students were asked to indicate on a five point Likert scale whether the issue had either a negative or positive influence on their experience or none at all.

While developing the questionnaire and testing first drafts, trying to capture the whole issue and asking what influence it had in one question is quite confusing and not easy to understand. So I split each issue into two questions, parts ‘a’ and ‘b’, where part ‘a’ basically defined the issue and asked whether the issue played any role in the experience, and part ‘b’ asked the student to declare the level of influence on a Likert scale. In this way the questionnaire was becoming too long, I was considering to keep it shorter by focusing only on questions which seemed interesting in relationship to the assumptions concluded from the interviews. However, since the group of interviewees did not include any high school teachers and was not very representative, it does not seem possible to be able to map the complexity of problems based on the interviews only. So I decided rather to keep the

questionnaire longer, knowing that it would become harder to convince people to spend time on it. On the other hand, I decided for most of the issues to only map their relevance and importance and not include too many open ended questions, since answering open ended questions takes more time than marking significance and influence of a particular issue, and in this case I could possibly end up not receiving any responses or getting one-word answers to open ended questions. Still, in order to make sure that respondents understand each of the factors well, I accompanied most of the Likert scale questions with simple explanatory yes/no questions which would not take much of their time, but explained the issue better.

Most questionnaires were sent out and received by e-mail. This strongly influenced the design of the questionnaire. The file containing the questionnaire had to be small and graphically simple for students with low bandwidth and older versions of software to be able to deal with it. Hence, I created the questionnaire as a simple rich text format file, without use of any frames, pictures, buttons or any other graphics which could increase the size and make manipulating the questionnaire complicated in older versions of text editors. As well, since most students were completing the questionnaire electronically on their computer, and the questionnaire was a simple 'rtf' file, I did not feel the need to provide extended space in the questionnaire knowing that this way, technically they can have as much space as they want when typing answers for the few open ended questions included in the questionnaire.

When creating the order of questions I decided to follow the order in which most of questionnaires in Slovakia are typically stated, i.e. socio-demographic questions at the beginning and everything else later. This is probably a heritage from previous regimes, when it was very usual to state at the beginning that the questionnaire is anonymous and no consequences will follow and then start the questionnaire asking for full name, address, birth date, etc. I was a bit afraid that students would feel cheated if I stated anonymity and no consequences for them at the beginning of the questionnaire, and then included anyway some demographic questions at the end, after they honestly gave me their opinions. This could cause them to decide not to send the questionnaire at the end. So I placed all socio-

demographic questions at the beginning, where nobody will be surprised by it, and by the time they would get to questions on their experiences they would already know how much information on themselves, like age and gender, they are supposed to reveal - and that I am really not asking them to provide real personal details.

I developed the questionnaire in English, then translated it into Slovak, using the Slovak version to distribute among learners. The English version of the questionnaire is attached as Appendix No.1.

Collecting Questionnaires

At first, I asked the course instructors of all four courses to distribute the questionnaire among their students – all students who started any of the four online courses. However, the response rate was very low, so I decided to take things into my own hands by seeking e-mail and postal addresses of the students to contact them directly.

Table 2 shows population (number of people who participated in one of the four online courses), sample (number of people I was able to contact) and number of returns (number of questionnaires filled out and returned).

Table 2: Population, Sample and Returns of Questionnaire for each Course

| Course | Population | Sample | Returns | Response Rate |
|--------------|------------|------------|-----------|---------------|
| ESB | 35 | 12 | 8 | 66.7% |
| I2DV | 78 | 68 | 20 | 29.4% |
| UIE | 35 | 35 | 18 | 51.4% |
| UME | 36 | 36 | 15 | 41.7% |
| Total | 184 | 151 | 61 | 40.4% |

For the Evolution of Social Behavior course (ESB), I was able to get e-mail addresses for only 12 students who successfully completed the course. The course author told me that the original data from registration forms were destroyed when his computer crashed last year and only addresses of those who completed the course were available. For the I2DE course, I got postal addresses of all 78 students who participated in any of the modules. I found out later, however, that there were

10 people who first took the I2DE course and then took either the UIE or UME course in the second run. I did not think that it would be wise to have the same person fill in the questionnaire twice. This way my sample for I2DE course dropped to 68. For both runs of the Use of Internet in Education (UIE) and Use of Multimedia in Education (UME) I have contacted all learners who started these courses, 35 and 36 students and high school teachers in all. Dropout rates for these courses were rather low, however three dropouts replied to the questionnaire.

Altogether, I asked 141 people to fill in the questionnaire. By February 17, 2003, I received 61 completed and useable questionnaires. There was one additional questionnaire I received two weeks after all my data were processed and two which came in time, but respondents stopped filling them after fourth and eighth question, complaining that the questionnaire was too long.

Questionnaire Respondents

Distribution of respondents by course, gender, profession, age distribution and Internet access are shown in Table 3:

Table 3: Respondents by Course, Gender, Profession, Age Distribution and Internet Access.

| | No. of Questionnaires Received | Percentage of all Questionnaires Received |
|------------------------------|--------------------------------|---|
| Course | | |
| ESB | 8 | 13,1% |
| I2DV | 20 | 32,8% |
| UIE | 18 | 35,9% |
| UME | 15 | 24,6% |
| Gender | | |
| Women | 36 | 59,0% |
| Men | 25 | 41,0% |
| Profession | | |
| Full time university student | 13 | 21,3% |
| Primary/secondary teacher | 45 | 73,8% |
| University Administrator | 3 | 4,9% |
| Age Distribution | | |
| From 21 to 30 | 25 | 41,0% |
| From 31 to 40 | 12 | 19,7% |
| From 41 to 50 | 16 | 26,2% |
| From 51 to 58 | 8 | 13,1% |

| | | |
|--------------------------------------|----|-------|
| Internet Access | | |
| Mainly from home | 11 | 18,0% |
| From home and school/work equally | 12 | 19,7% |
| Mainly from school/work | 38 | 62,3% |

Most of the respondents were full-time university students or primary/secondary school teachers. However, three university administrators who participated in I2DE course sent their questionnaires as well. Since accessing the Internet from home is rather expensive for many people, most of the learners were going online from their school or workplace.

The next three chapters contain data gathered from questionnaires and its analysis. Chapter six focuses on course related issues, chapter seven on personal issues and chapter eight on learner's organizational issues.

CHAPTER SEVEN

COURSE RELATED ISSUES

This chapter focuses on data and analysis of influence of course related factors on the experience of learners. It begins with an analysis of the difference between interview and questionnaire results, provides an overview of findings and looks closer at possible differences in influence of course issues between different groups of respondents. Since influence of course related issues should naturally vary between different courses with different structures, it should be interesting to look into possible differences between views of students in different courses. I as well looked into possible differences in influence of course related issues between men and women, and between full time university students and primary/secondary schools teachers who might have different views on efforts of other teachers.

Shift Towards Positive Responses between Interview and Questionnaire Results

The first impression I got when reading the questionnaires was that these results looked much more positive, primarily towards issues connected with course structure, than the interview results indicated. In some cases, the answering of related questions did not seem logical. Likert scale questions were accompanied by explanatory yes/no questions. There were many respondents who answered whether a particular issue bothered them by “yes, it was very bad”, but next, when asked to indicate what influence the issue had on their experience, they ticked “very positive influence”.

A few possible reasons for this trend are:

- Slovakia’s socialist past. When filling in any questionnaire before 1989, very often, despite formal assurances of anonymity and no consequences, leaders on all levels persecuted people for writing negative evaluations. Thus, the usual practice was to “keep it safe” by expressing only positive views on everything.
- During the study, learners developed a personal relationship with their tutors and they did not want to harm them in any way in front of an “outside” person.

- Slovakia is small, with a strong “small town feeling”, and professional communities are rather tight. Everyone knows or hears about everybody else, and it is very important to provide small favors or services to others in the likelihood that one will need something in return from those people someday.

The first reason is least likely to have a strong influence because thirteen years have now passed since 1989, which has been enough time to get used to different practices in evaluating questionnaires. There were many research projects using questionnaires conducted in Slovakia during last decade (for instance Brain Drain... 1997, or Meseznikov & Ivantysyn, 1999), and none indicated this problem. As well, 40.1% of respondents in this research were younger than 30, which means that they were sixteen and younger in 1989, not having any wide exposure to filling out questionnaires under pressure during socialism.

However, the combination of the second and the third reasons could more likely cause this shift towards positive responses. In one case, I was able to determine from questionnaire answers that the same person, who was willing to share his negative opinions on some of the instructor's efforts during the interview, evaluated the same efforts rather positively in the questionnaire. So I contacted him again, curious whether he had changed his mind, and learned that he had not. But he indicated that somehow, when negative views are written they look much more harmful than when spoken, and he basically likes the tutor and knows that the tutor was giving his best efforts, so he did not feel good to indicate the tutor's failures in written form.

This indicates that although the feelings of not “causing any harm” to the tutor had significant effect when filling in the questionnaires, it was still possible to convince people to be honest and open during the interview. This suggests that strong historical elements are still at work in Slovak culture and should be considered when determining research methodologies.

Still, this shift between interview and questionnaire results was visible only within the questions in the first part of the questionnaire related to course structure. Regarding personal or learner's organizational issues, I could not find any significant

deviation between explanatory yes/no questions and Likert scale questions. As well, I found no major differences from the interview results occurring here. This prompts me to conclude that the shift was caused by feelings of solidarity towards tutors and that answers connected to personal and learner's organizational issues have not been necessarily biased by this shift.

Overview of Findings

Respondents were asked to indicate what influence different factors had on their learning experience on a five-point scale. Table 4 shows influences of different course related factors on learner's experience. Very negative influence is marked as -2, moderately negative influence as -1, no influence as 0, moderate positive influence as 1 and very positive influence as 2. Mean of value for each factor is gained as arithmetic average of all answers.

Table 4: Influence of Course Related Factors on a Learner's Experience

| Factor/Influence | Mean | Standard Deviation | Minimum | Maximum | n |
|--|------|-----------------------|---------|---------|----|
| 1. Presence of course descriptions, goals/expectations, outlines/syllabi on web site | 1,30 | 0,8 | -1 | 2 | 61 |
| 2. The initial course orientation | 1,95 | 1,04 | -2 | 2 | 61 |
| 3. Approach of course authors to previous knowledge of students | 0,97 | 0,98 | -2 | 2 | 61 |
| 4. Choice of Media for the Course | 1,30 | 0,76 | -1 | 2 | 61 |
| 5. Access to literature for the course | 1,05 | 0,86 | -1 | 2 | 61 |
| 6. Feedback from tutors | 1,61 | 0,67 | -1 | 2 | 61 |
| 7. Interaction with peers within the course | 0,77 | 1,01 | -1 | 2 | 61 |
| 8. Encouragement for peer interaction and cooperation | 0,80 | 0,91 | 0 | 2 | 61 |

| | | | | | |
|---|------|------|----|---|----|
| 9. Interaction with peers outside of the course | 0,74 | 0,91 | -1 | 2 | 61 |
| 10. Technical assistance | 1,33 | 0,85 | -1 | 2 | 61 |
| 11. Reliability of technology on the course provider's side | 1,05 | 1,12 | -2 | 2 | 61 |
| 12. Cheating and plagiarism prevention | 0,33 | 0,72 | 0 | 2 | 61 |

Deviation is largest on issues concerning the Initial orientation on the course, Interaction with peers within the course and reliability of technology on the course side. This is most probably caused by the fact, that within these issues differences in course structure among different course were most notable as I will explain later.

Figure 1 gives an overview of the influences of course related issues. Factors are numbered 1 to 12; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

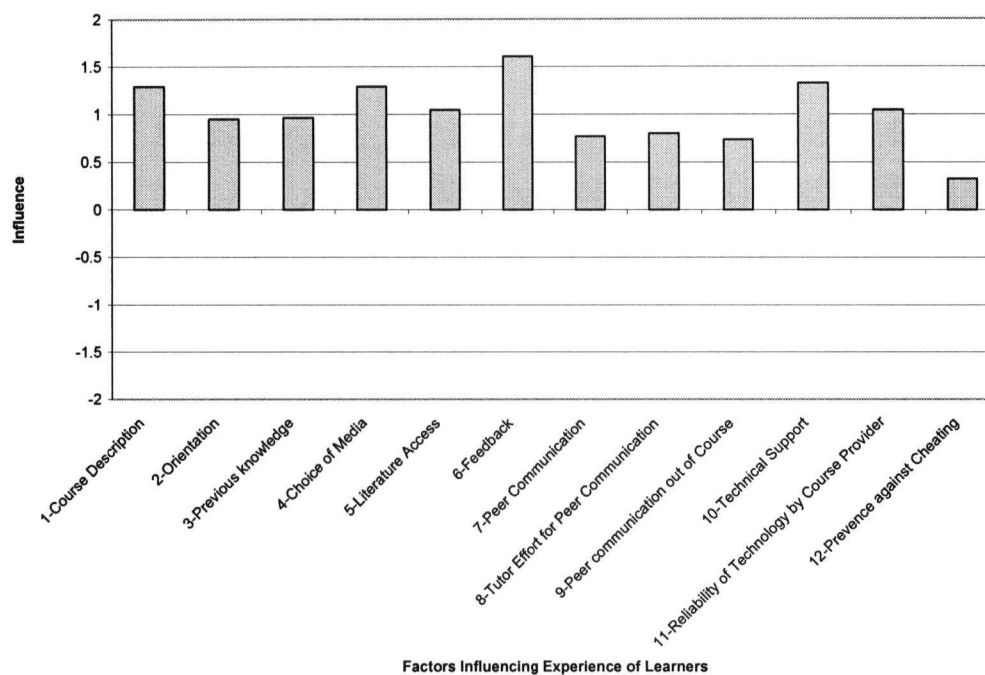


Figure 1. Overview of Course Related Issues

Each bar represents the average degree of emphasis as reported by learners. Results here are all in the positive scale, probably due in part to the above mentioned

shift. The highest rate was given to feedback from instructors, which was confirmed by answers in open ended questions, where 26.2% of respondents listed the approach of the tutor as the most positive feature of their experience and 18.0% indicated it to be the most positively surprising feature. 11.5% considered the facilitative role of the tutor a new and unique feature specific to online learning, and 9.8% thought that the shift of the tutor to the facilitating role is the reason for online learning having higher educational value than face-to-face courses. This is an interesting point towards the ongoing debate on whether there is or is not a difference in quality between online and face-to-face form of learning.

The issue of focus of course authors and instructors on cheating and plagiarism seemed the least relevant to respondents. In many cases they indicated that there is no need for such focus, since in these courses everybody is highly motivated and has no reason to cheat. However, two of the respondents expressed concern about this problem in the future, where not all students will be strongly motivated and "among students here, it is considered cool to cheat".

Issues among Courses

Since course related issues are supposed to depend on course structure, it makes sense to look more closely at separate issues from course to course.

Figure 2 shows influences of course related issues as they vary from course to course. Factors are numbered 1 to 12; scale is from 2 as "Very positive influence" to -2 as "Very negative influence. I used the same acronyms for the courses as before: ESB stands for Evolution of Social Behavior, I2DE is Internet Innovation of Distance Education, UIE is Use of Internet in Education, and UME means Use of Multimedia in Education.

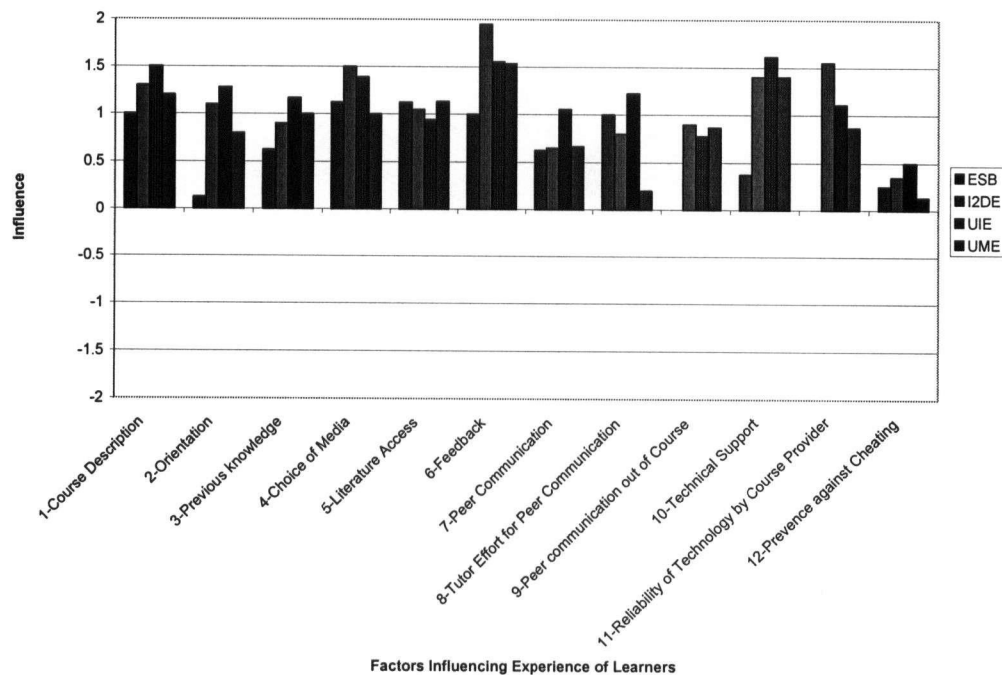


Figure 2. Course Related Issues by Course

From looking at this figure, it is possible to determine relative strengths and weaknesses of separate courses as seen by the students. Each bar represents the average degree of emphasis as reported by learners in each course and while the bars differ considerably in length, not all of them are statistically significant. There were statistical differences only for Feedback ($F = 4,88$, $df = 59$, $p < ,01$), Tutor effort for peer communication ($F = 4,17$, $df = 59$, $p < ,01$), Technical Support ($F = 4,89$, $df = 59$, $p < ,01$), and Reliability of Technology ($F = 4,52$, $df = 59$, $p < ,005$). These differences can be explained by different structure of each course.

The Evolution of Social Behavior (ESB) course was fully online, without any face-to-face introductory orientation, so although most of the students saw all descriptions and introductory information on the course web site positively, the introductory orientation had not taken place, hence the second question was irrelevant to them. Students in this course praised feedback from the tutor positively, but still a little bit less positively than students from other courses. As I learned from the interviews, the course server was moved during the course to a different location and the course web site was not accessible for almost a week. This is the most likely the reason why the issue of reliability of technology on the course side (question No.

11) scores so close to zero for this course, as opposed to highly positive evaluations of this issue for other courses.

The Internet Innovation of Distance Education (I2DE) course got the highest score for feedback from tutors. In open-ended questions learners from this course praised most highly their friendliness, fast response and class atmosphere they created. As well, this course got highest marks for reliability of technology on the part of the course provider. This course was provided by one of the distance education centers created within the Phare project in 1995²⁰, its employees had better technical equipment, training and experience than authors and tutors of the other three courses. This could be the reason for their higher evaluation for both feedback from tutors and reliability of technology. And so I would say that this indicates the value of training and experience and it would be wise to promote and support the continuation of programs like Phare.

The Use of Internet in Education (UIE) course was evaluated relatively high in almost all issues connected to course structure. Knowing that the author of this course has been labeled as a typical “Lone Ranger” (Bates, 2000), a teacher with enthusiasm and interest in new technologies who created and offered the course on his own initiative without any significant institutional support, these results seem to be rather impressive. However, as interview results and open ended questions in the questionnaire indicated, most learners in this course knew the instructor personally before the course, and have had a personal relationship with him, thus the effect of the ‘positive shift’ in evaluation can be stronger here.

The Use of Multimedia in Education (UME) course was offered by another “Lone Ranger” and in similar circumstances as the previous one. The instructor is a friend and follower of the creator of the UIE course. Hence, this course uses the same technology and similar instructional features. However, UME scored relatively very low compared to other courses on support of peer communication among students.

²⁰ The Local Center for Distance Education in Kosice was created and equipped with technology within the Phare program in 1995. Its employees were trained by the Herriott

Issues According Gender

Figure 3 shows the distribution of influence of course related factors according to gender of respondents. Factors are numbered 1 to 12; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

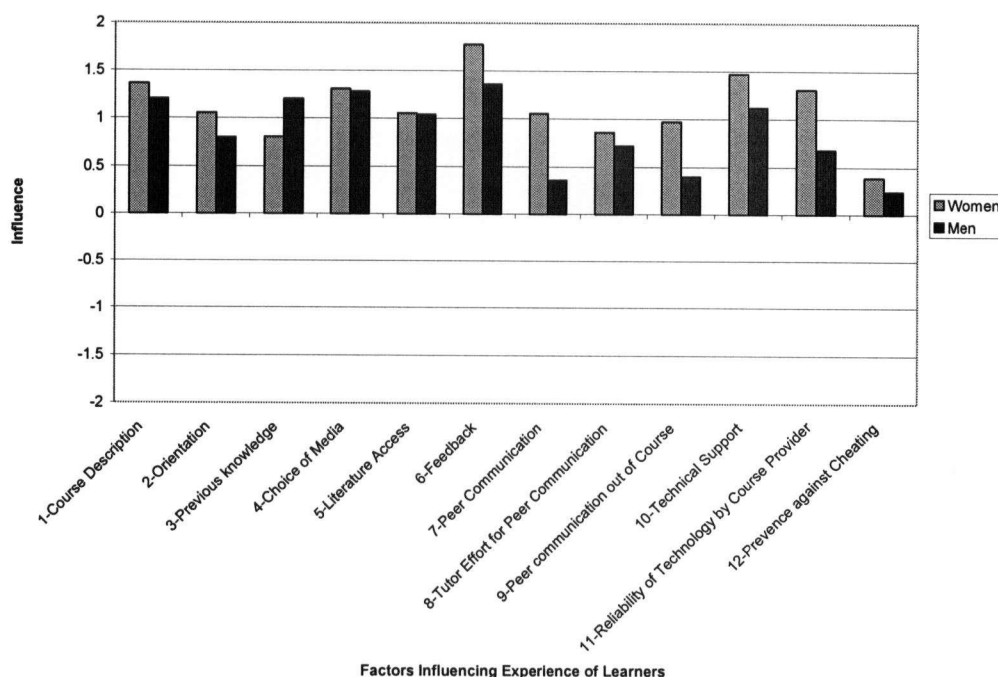


Figure 3. Course Related Issues by Gender

Each bar represents the average degree of emphasis as reported by learners of each gender and while the bars differ considerably in length, not all of them are statistically significant. There were statistical differences only for feedback ($F = 6,34$, $df = 59$, $p < 0,01$), peer communication within the course ($F = 7,85$, $df = 59$, $p < ,05$), peer communication outside the course ($F = 6,34$, $df = 59$, $p < ,01$) and Reliability of technology ($F = 4,93$, $df = 59$, $p < ,05$). Women were more appreciative than men of the efforts of course instructors. As well, men's evaluation of peer communication is much closer to "no influence" than from the women's point of view, within and outside the course. It seems like women tend to consider

communication with tutors and peers more important for their experience than men. Men were more critical than women about the reliability of technology.

Issues among Teachers and Students

Figure 4 shows the distribution of influence of course related factors on full-time students and primary and secondary schools teachers. Factors are numbered 1 to 12; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

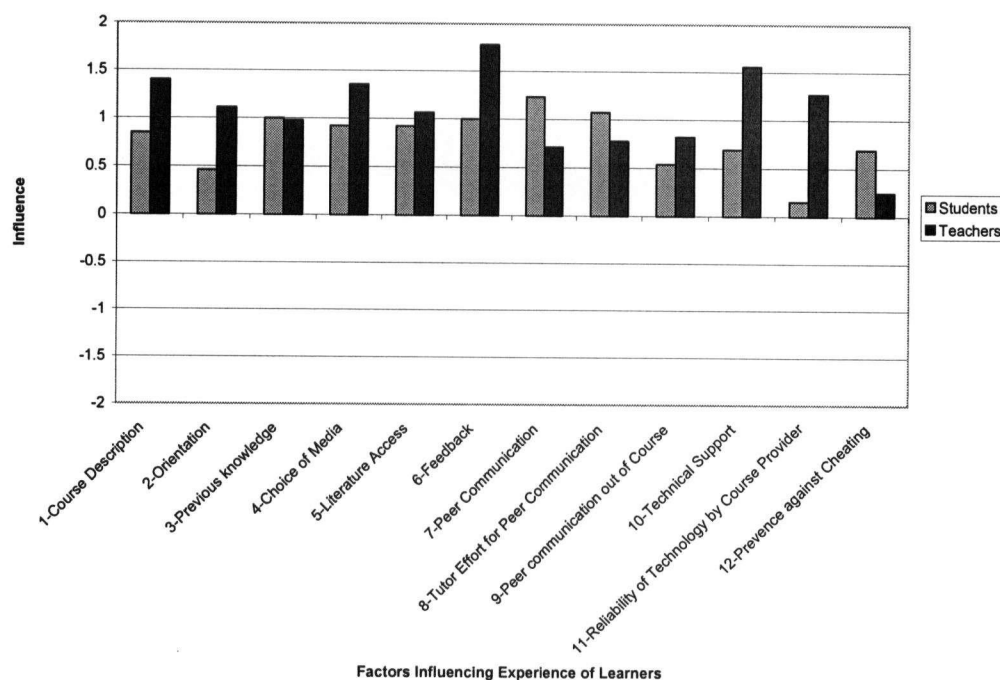


Figure 4. Course Issues as Seen by School Teachers and University Students

Each bar represents the average degree of emphasis as reported by teachers and students. From this figure it is possible to see that full-time university students seem to be more critical towards the course orientation. This could, however, be caused by the fact in the ESB course, where an introductory orientation did not take place, all participants were full-time university students. As well, full-time students did not praise feedback from tutors as much as did the teachers, and they were more critical towards technical support and reliability of technology on the part of the

course provider. This could be a result of teacher professional solidarity, where teachers would be more willing to appreciate efforts of other teachers. On the other hand, full-time students communicated with their peers more and they seemed to consider issues of cheating and plagiarism a little bit more relevant (they noted some activities of course instructors to prevent it and praised it accordingly), than the teachers, who seemed to consider dealing with this issue almost completely irrelevant.

CHAPTER EIGHT

PERSONAL ISSUES

This chapter focuses on data and analysis of influence of personal factors on the experience of learners. It provides overview of findings and looks closer to possible differences in influence of personal issues between different groups of respondents. It is logical to assume that influence of personal issues could diverse between different groups of people. I tried to look into possible differences between views of men and women, between full time university students and primary/secondary schools teachers and learners accessing Internet from home and those using access from their school or workplace. Lastly, since this possibility was suggested by some respondents during interviews, I looked at possible correlation between age of respondents and their proficiency in English and technical experience.

Overview of Findings

Table 5 shows influences of different personal factors on learner's experience. Factors are numbered as in questionnaire. Very negative influence is marked as -2, moderately negative influence as -1, no influence as 0, moderate positive influence as 1 and very positive influence as 2. Mean of value for each factor is gained as arithmetic average of all answers.

Table 5: Influence of Personal Factors on Learner's Experience

| Factor/Influence | Mean | Standard Deviation | Minimum | Maximum | n |
|--|------|-----------------------|---------|---------|----|
| 13. Meeting of Expectations | 0,84 | 0,95 | -1 | 2 | 61 |
| 14. Difference in educational value of online learning | 0,97 | 0,89 | 0 | 2 | 61 |
| 15. Time and space flexibility in online study | 1,75 | 0,43 | 1 | 2 | 61 |
| 16. Overall time saving | 1,28 | 0,88 | 0 | 2 | 61 |
| 17. Saving time through | 1,56 | 0,70 | 0 | 2 | 61 |

| | | | | | |
|--|-------|------|----|---|----|
| flexible scheduling | | | | | |
| 18. Use of Internet resources | 1,44 | 0,74 | -1 | 2 | 61 |
| 19. English proficiency when working with Internet resources | -1,48 | 0,96 | -2 | 2 | 61 |
| 20. Feeling of information overload | 0,61 | 1,02 | -2 | 2 | 61 |
| 21. Support from family | 0,79 | 0,97 | -1 | 2 | 61 |
| 22. Support from friends and colleagues | 0,85 | 1,03 | -2 | 2 | 61 |
| 23. Sufficient technical experience | 0,74 | 1,05 | -1 | 2 | 61 |
| 24. Anxiety about managing technical requirements | -1,98 | 0,79 | -1 | 2 | 61 |
| 25. Communication problems and misunderstandings | 0,10 | 0,51 | -1 | 2 | 61 |
| 26. Feeling of isolation | -0,92 | 0,42 | -1 | 1 | 61 |
| 27. Shyness to communicate in written form | 0,11 | 0,52 | -1 | 2 | 61 |
| 28. Freedom to express ideas in written form | 0,72 | 0,95 | -1 | 2 | 61 |
| 29. Quality of discussion in written form | 0,67 | 0,83 | -1 | 2 | 61 |

Figure 5 shows an overview of influences of factors connected to personal experience, educational background and family situations of the learners (Personal issues). Factors are numbered 13 to 29 the same way as in questionnaire and Table 4; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

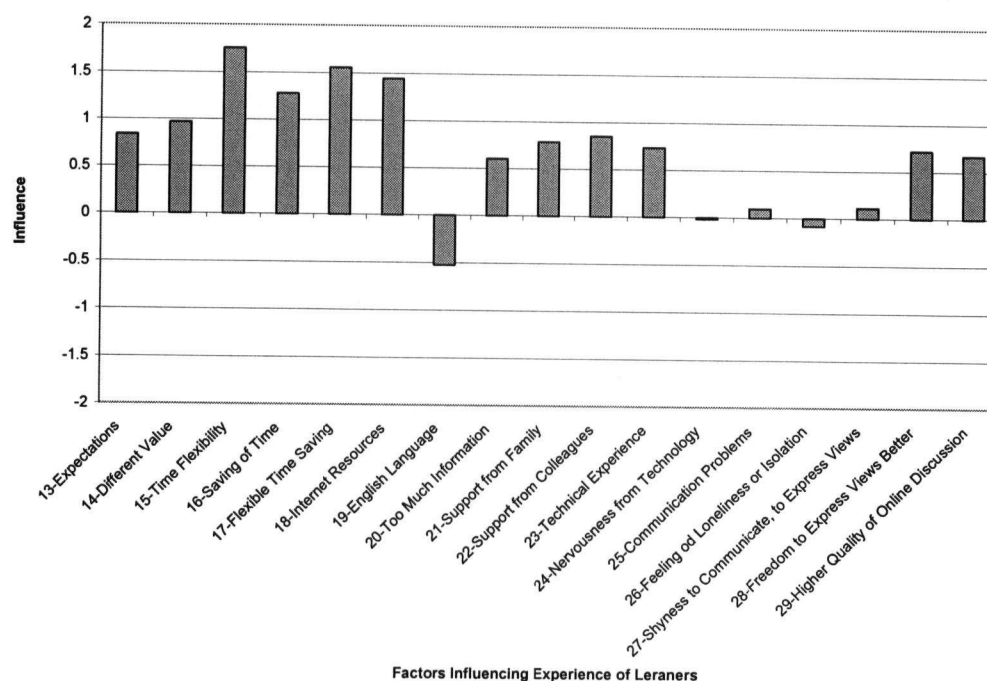


Figure 5. Personal Issues Overview

Each bar represents the average degree of emphasis as reported by learners. The most positive evaluation was given to time flexibility, enabling learners to organize their time for study according to their other commitments. The fact that flexibility helped to save some time and that they had access to wide-ranging internet resources throughout the course had a very positive influence as well. The most negative influence within this group of factors was the lack of knowledge of English which would enable learners to access a much wider amount of Internet resources than the ones available in Slovak or Czech languages. One respondent wrote in her questionnaire: "I could see how many information there is, but could not read it all, because my English is poor. It was very frustrating".

Issues According Gender

Figure 6 shows distribution of influence of personal issues according to gender of respondents. Factors are numbered 13 to 29 the same way as in questionnaire and Table 4; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

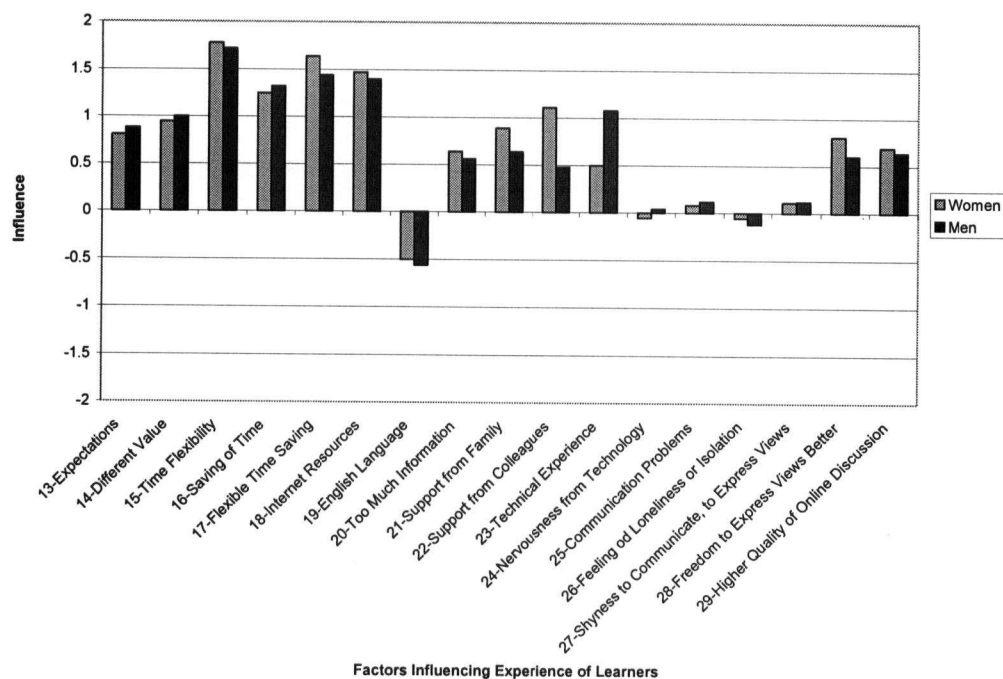


Figure 6. Personal Issues by Gender

Each bar represents the average degree of emphasis as reported by learners of each gender and while the bars differ considerably in length, not all of them are statistically significant. There were statistical differences only for Support from colleagues ($F = 5,99$, $df = 59$, $p < ,01$) and Technical experience ($F = 4,81$, $df = 59$, $p < ,03$). Women gave significantly more importance to support received from their colleagues and families and declared having lower technical experience. This can be caused by generally lower interest among women in technology, but as well, this can be caused by lower self-confidence of women in the field of technology due to general assumption, that they know less about it than men do.

Issues among Teachers and Students

Figure 7 shows the distribution of influence of personal issues according to profession among full-time students and primary/secondary school Factors are numbered 13 to 29 the same way as in questionnaire and Table 4; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

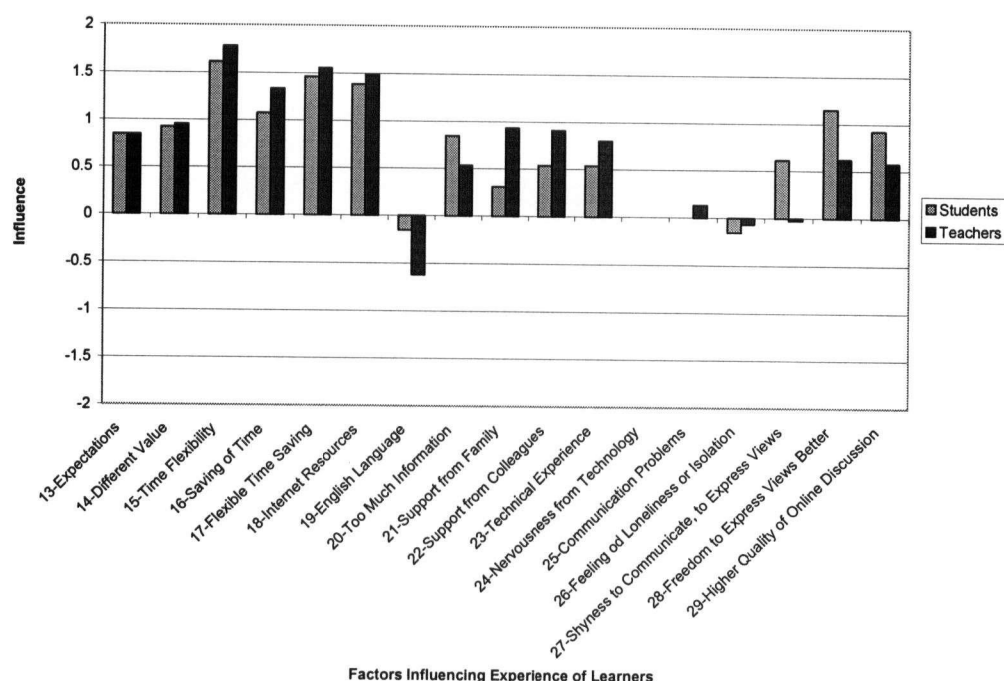


Figure 7. Personal Issues by Profession

Each bar represents the average degree of emphasis as reported by teachers and students. The students' knowledge of English seems to be higher than that of the school teachers, and they were less likely to have problems dealing with Internet resources in English. Hence, they more likely considered the huge amount of information available online as an advantage. Students did not seem to consider support from family and colleagues as important as teachers. Concerning support from family, the reason could be that many students live in hostels apart from their families, so contact with them does not play very important role in their day to day lives. Perhaps, as well, in relation with this, students seemed to feel more isolated when taking online course than did the teachers.

Interestingly, teachers seemed to feel shy to express their thoughts when communicating in written form, while students saw it positively as an option to better express what they want to say. On the other hand, when asked whether communicating in written form was helpful to express their thoughts more precisely,

teachers seemed to agree with students that it had a positive influence on their experience, although they did not seem to evaluate this factor as high as students. Both students and teachers felt that discussions, when in written form, could be on a higher intellectual level than a face-to-face discussion.

Issues by Internet Access

Figure 8 shows distribution of influence of personal issues according to Internet access. Factors are numbered 13 to 29 the same way as in questionnaire and Table 4; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

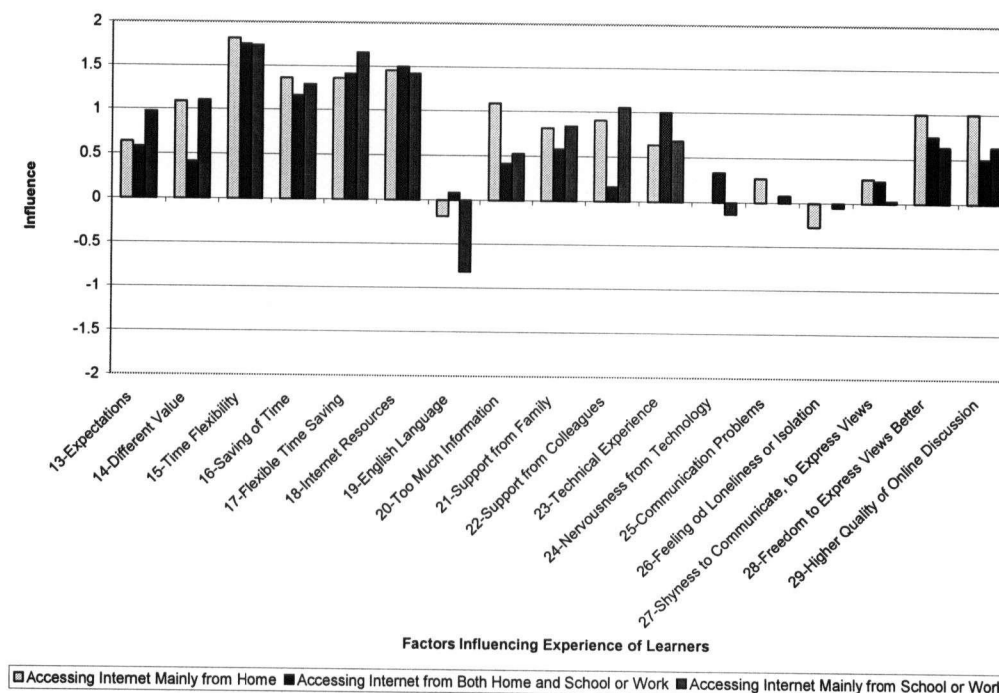


Figure 8. Personal Issues by Internet Access

Each bar represents the average degree of emphasis as reported by people accessing Internet from home or school/work. People, who accessed the Internet from school or work more often felt their lack of knowledge of English as a problem than people having the option of Internet access from home. This could imply that those who could afford a computer and an Internet connection from home are those

who are more able to invest in their education and hence can speak better English. From this point of view, it could be expected that people connecting to the Internet from home will be more technologically experienced and should be less nervous about meeting technical requirements of the course. Furthermore, when looking at issue No. 24, "nervousness from technology", for people accessing the Internet mainly from home, this issue seemed completely irrelevant, and people using connections from both home and school/work even proudly declared that they were confident that they will manage everything.

As expected, disadvantages of getting online from home can be seen as one of the factors having impact on feelings of isolation during the course.

Age, English Proficiency and Technical Experience

Some respondents suggested younger people would not have as many problems with English or with technical inexperience. Figure 9 shows correlations between age of questionnaire respondents and how they felt about the influence of language problems and their technical experience. Scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

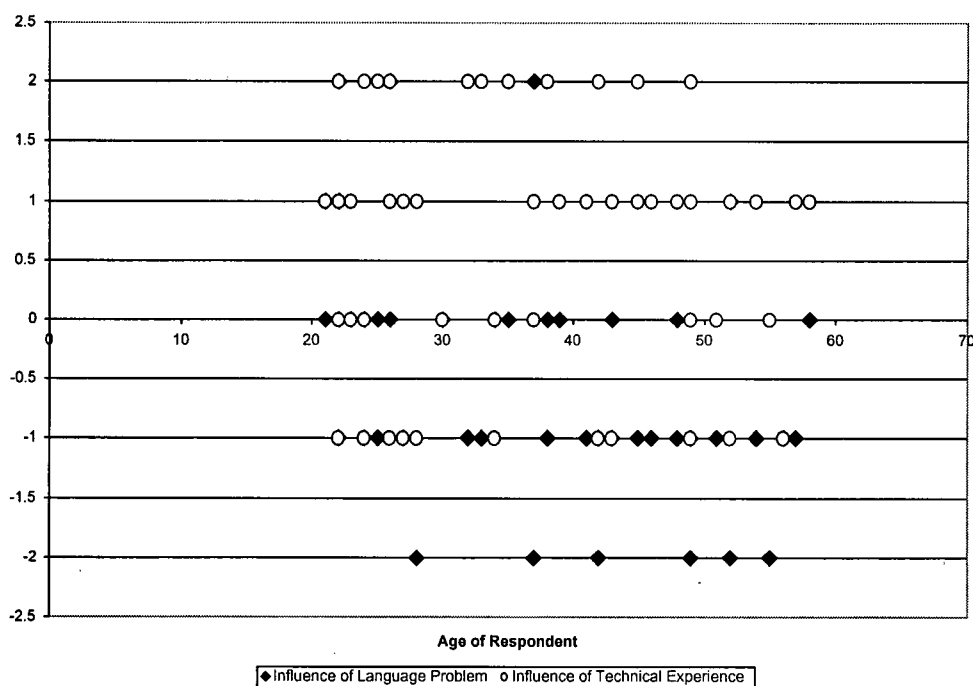


Figure 9: Correlation of Age to Language Proficiency and Technical Experience

Although it is possible to say that with increasing age, the number of respondents admitting negative influence of their lack of English increases, this is not true for the influence of previous technical experience. Older respondents did not suffer more from technical inexperience than younger ones.

CHAPTER NINE

LEARNER'S ORGANIZATIONAL ISSUES

This chapter focuses on data and analysis of influence of learner's organizational factors on the experience of learners. It provides an overview of findings and looks closer at possible differences in influence of learner's organizational issues between different groups of respondents. Organizational setting of full time university student and primary/secondary schools teacher is different. I looked into possible differences in perceptions of influence of learner's organizational issues between full time university students and primary/secondary schools teachers. I as well looked into possible differences between men and women and different age groups, but could not see any significant differences.

Overview of Findings

Table 6 shows influences of different learner's organizational factors on learner's experience. Factors are numbered as in questionnaire. Very negative influence is marked as -2, moderately negative influence as -1, no influence as 0, moderate positive influence as 1 and very positive influence as 2. Mean of value for each factor is gained as arithmetic average of all answers.

Table 6: Influence of Learner's organizational Factors on Learner's Experience

| Factor/Influence | Mean | Standard Deviation | Minimum | Maximum | n |
|---|-------------|-------------------------------|----------------|----------------|----------|
| 30. Access to technology | -0,66 | 0,75 | -2 | 2 | 61 |
| 31. Reliability of technology on learner's side | -0,67 | 0,81 | -2 | 2 | 61 |
| 32. Potential for job promotion | 0,25 | 0,62 | -1 | 2 | 61 |
| 33. Possibility for salary increase | 0,02 | 0,29 | -1 | 2 | 61 |
| 34. Possibility for earning credits or marks | 0,25 | 0,57 | 0 | 2 | 61 |
| 35. Support from employer | -0,98 | 0,53 | -2 | 2 | 61 |

Figure 10 gives an overview of influence of issues connected with the institutional and organizational setting of the learner and technical issues on the learner's end. Factors are numbered 30 to 35 the same way as in questionnaire and Table 4; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

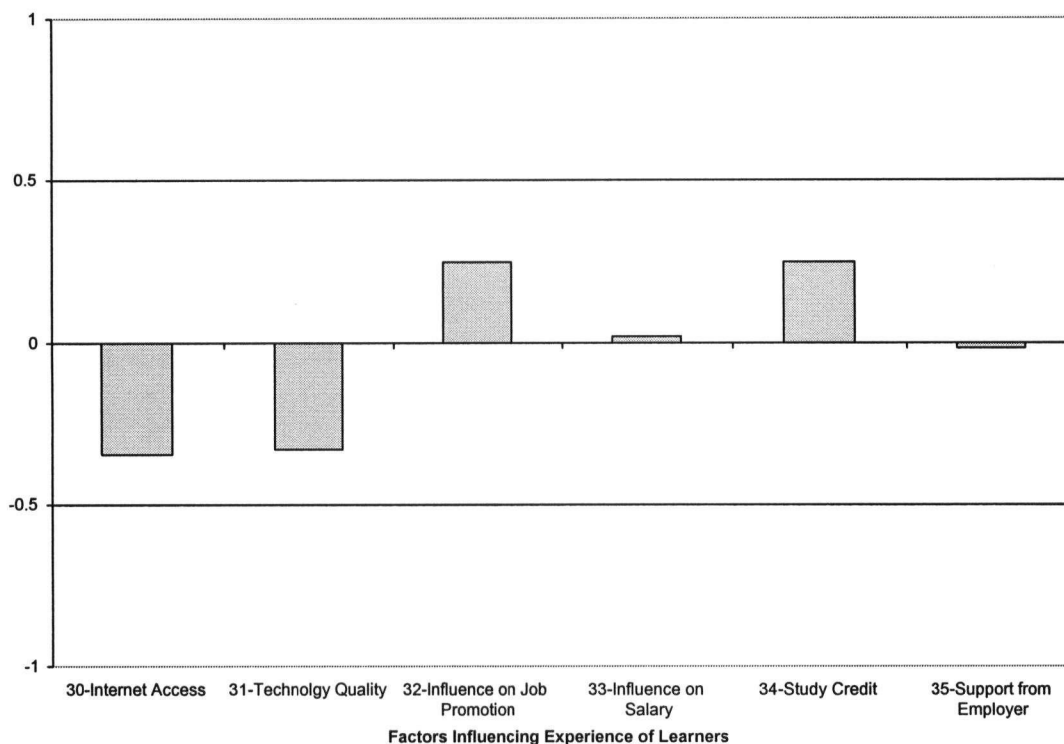


Figure 10. Learner's organizational Issues Overview

Each bar represents the average degree of emphasis as reported by learners. As might be expected, problems with Internet access and reliability of technology had remarkably negative influences on respondents' experiences. However, two other aspects are worth mentioning here. All four online courses that were the subject of this study were only in their trial runs and were provided without any fees and without any state-recognized certificates. Only full time students could get credits for their field of study for participation. Still, respondents said that this experience could have positive influences on their positions in work. This indicates that they really consider skills they learned being useful even when not getting

rewards, which is another appreciation of the quality of courses. The second aspect is the fact, that some secondary school teachers indicated negative support from their employer while taking the course, in some cases their school director or colleagues were jealous. There are situations where directors are afraid to lose respect and power when teachers are better skilled and educated than themselves.

Issues among Teachers and Students

The following figure shows the distribution of influence of learner's organizational issues among full-time university students and primary and secondary school teachers. Factors are numbered 30 to 35 the same way as in questionnaire and Table 4; scale is from 2 as "Very positive influence" to -2 as "Very negative influence".

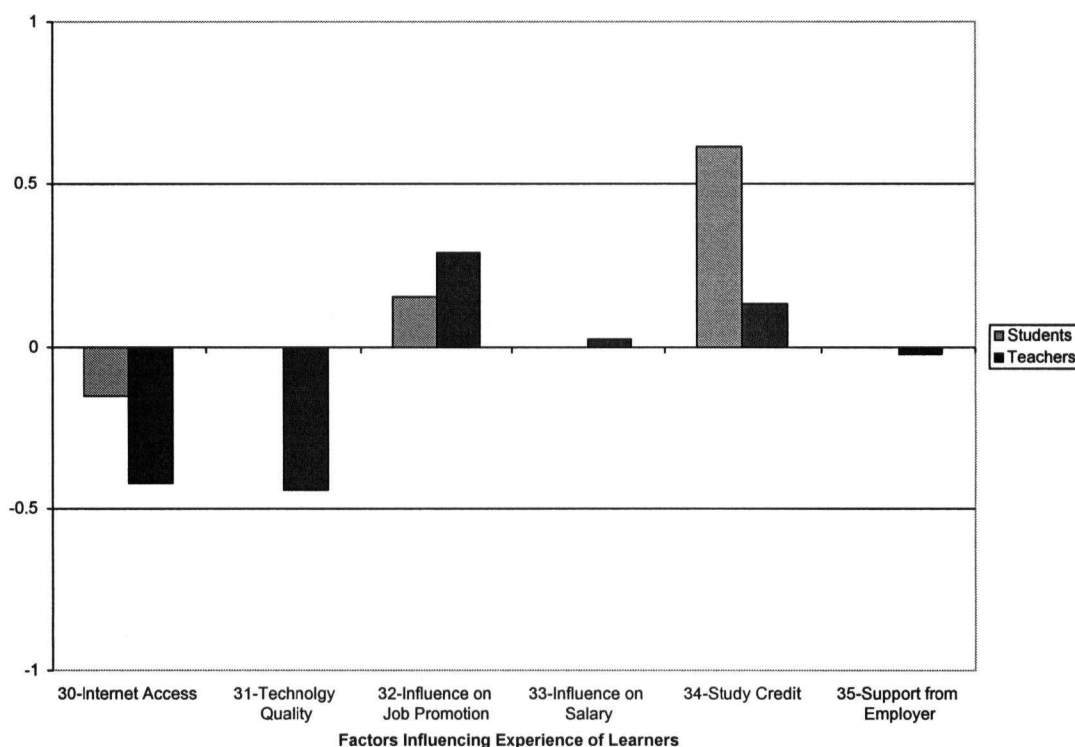


Figure 11. Learner's organizational Issues by Profession

Each bar represents the average degree of emphasis as reported by teachers and students. Here it is visible that technological problems concerned teachers much more than students. University students have access to technology at their university if they can not access the Internet from home. Teachers are stuck with equipment they have at their primary or secondary schools. Hence, this simply reflects a well-known fact that universities are better equipped than primary or secondary schools. The fact that full-time students more often saw the fact that they could get marks or credits for taking an online course as a positive motivation is not unexpected.

Problems with not getting support from employers while studying concerned teachers, rather than students. One of the teachers wrote: "What support from employer? My director was jealous that I am doing something she would not be able to. Instead of helping me, she increased my teaching hours and restricted my access to the computer lab...". There were a few more teachers complaining about similar experiences. This just leads to the obvious conclusion that further education of school directors and administrators is as important and necessary as the education of teachers.

CHAPTER TEN

ISSUES CONNECTED WITH LOCAL CULTURE, LEGISLATION AND ECONOMY

This chapter focuses on issues, which may be connected with Slovak culture, legislation and economic circumstances, in order to find out whether it is possible to determine issues typical for Slovakia or Central and Eastern Europe. I start with proposed conclusions based on interview results, then analyze these according to questionnaire results. Lastly I propose eight issues connected with local culture, legislation and economic circumstances. These issues are most probably typical for all countries of Central and Eastern Europe.

Proposed Conclusions Based on Interview Results

Technical problems - whether on the part of the institution offering the course or on the part of the student, problems caused by poor equipment or complicated access to technology and Internet, seemed to always be pointed out as the first and major issue by all students.

Proposition: Since sufficient technical infrastructure is an inevitable condition for offering and participating in online course, this signals that despite fast development in Slovakia, technical infrastructure needs to grow more for it to stop being the first and most influential problem for students participating in an online course

Course structure – factors and problems connected with the course structure significantly varied from course to course. However, on two issues, answers of all interviewees were similar independent of the course they studied. One was strong dismissal of the issue of cheating and plagiarism; the other was low encouragement for peer cooperation from the instructors.

Proposition: Dismissal of the cheating and plagiarism problem can be caused by the fact that the interviewed group was very specific in their motivation for participation in an online course. Thus, highly motivated students would not likely think about cheating. Low encouragement for peer cooperation on the part of

instructors can be connected with a lack of prior experience in collaborative learning in Slovakia

Peer cooperation – in all four courses studied within this research, cooperation among peers was very rare. Most of interviewees did not even know it could be useful.

Proposition: Previous non-existence of collaborative learning in Slovakia is visible on the part of both tutors and students. Students don't know what peer collaboration could be useful for, so when not being encouraged by teachers they do not seek it at all.

Flexibility and responsibility – All interviewees praised the flexibility of online study. Many indicated problems with taking responsibility for management of their own time connected with the freedom to choose time and places to study.

Proposition: A high degree of problems with taking responsibility for their own study time can be connected with a history of not encouraging independent thinking within the Slovak educational system.

Miscommunication, isolation and technical experience – Almost all interviewees, being from a group of those already most enthusiastic, had strong technical experience. They did not have a problem of feeling isolated, however frustrations caused by miscommunication occurred.

Proposition: With increased experience with technology, feelings of loneliness or shyness towards online communication are decreasing, however, miscommunication problems often occur independently of the technical experience of participants.

Analysis of Conclusions Proposed from Interview Results

Questionnaires have brought more information on some of issues on which first conclusions were proposed based on interview results.

Proposition: Since sufficient technical infrastructure is an inevitable condition for offering and participating in online courses, this signals that despite fast development in Slovakia, technical infrastructure needs to grow more for it to

stop being the first and most influential problem for students participating in online courses.

Analysis: Results from the open ended part of the questionnaire seem to confirm conclusions made from interviews. "Technical problems" was the most frequent answer to the question "What was the most negative aspect of the course?" given by 27.9% of respondents. However, when looking at the answers to Likert Scale questions, respondents have identified problems of limited knowledge of English as more serious than problems with technology ("very negative" or "moderately negative" influence of problems with access to technology (computer and Internet) was marked by 27.9% of respondents, for problems with reliability of technology this number is 34.4%, and for language problems, 54.1%).

On the other hand, speaking English is not a necessary condition for taking an online course provided in Slovak by a Slovak institution, but access to a computer and the Internet is mandatory. I think that the fact that other problems, besides insufficient technical infrastructure, are starting to be taken as more serious problems can be seen as an optimistic sign and that with improving infrastructure this trend will continue.

Proposition: Dismissing of cheating and plagiarism can be explained by the fact that interviewed group was unique in their motivation for participation in online courses. Highly motivated students would be more unlikely to consider cheating. Low encouragement for peer cooperation on the part of instructors can be connected with a lack of history of collaborative learning in Slovakia.

Analysis: In Likert scale responses, the question on instructor's efforts on the issue of cheating and plagiarism seems to have received rather positive ratings. However, according to the accompanying "explanatory" question, it seemed that most of the respondents still considered the issue irrelevant and ranked the issue positively just to give praise to the efforts of instructors.

Results on issues of peer cooperation look more optimistic than how it seemed from the interviews, even when taking into account all biases and shifts to positive responses. Cooperative ways of learning are undoubtedly a new concept in Slovak education for both instructors and learners. However, in two of the four

courses – in the second semester of the ESB course and mainly in the second run of the UIE course, encouragement for peer-to-peer communication and collaboration on the part of instructors appeared. Instructors of the ESB course asked students to present their views in forums, comment on each other's work and come to agreements. Learners in the second run of UIE course were asked to cooperate in small groups on writing assignments. Both these instructors confirmed that despite the newness of the concept, once students understood the benefits, they participated enthusiastically. Figure 2 shows increased positive rating for Support for peer communication for ESB and UIE courses, and increased ratings for Peer Communication, especially for the UIE course.

Proposition: Previous non-existence of collaborative learning in Slovakia is evident from both tutors and students. Students don't know what peer collaboration could be useful for, so when not being pushed into it by teachers, they are not seeking it at all.

Analysis: According to questionnaire results, mainly due to the efforts of the instructor in the second run of the UIE course, peer cooperation was not that rare anymore. Actually, four out of 18 respondents who studied in the UIE course listed "communication and cooperation with peers" as a positive influence. Hence, there is hope that these students will exert effort for cooperation and require cooperative activities from their instructors when taking online courses in the future.

Proposition: The high level of problem with taking responsibility for their own study can be connected with a heritage of not encouraging independent thinking within the Slovak educational system

Analysis: Flexibility rated highest as having positive influence according the questionnaire results. As well, independent study and time management was seen as a positive influence. 21.3% of respondents have named "higher responsibility for study" as a reason why they think that online learning has higher educational value comparing to face-to-face courses. However, two of three respondents who did not finish their courses listed self-discipline and time management problems as the most negative experiences from their online study. They both admitted that this was the main reason for their dropping out. To find out how serious the problem is with

taking responsibility, and whether it is more serious than in other areas of the world, it would be necessary to conduct more social research in this direction.

Proposition: With increased experience with technology, feelings of loneliness or shyness towards online communication will decrease. However, miscommunication problems occur independently of technical experience of participants, and will likely only decrease when students become more used to communicating in written form.

Analysis: According to data gained from the questionnaires, it looks like this proposition is not always true. Feelings of loneliness and isolation are more likely connected with the Internet access. Learners accessing the Internet from home are those who have better technical experience and knowledge of English. However, as is evident from the Figure No. 9, these are the individuals who had more problems with feeling isolated, rather than less experienced learners, who accessed the Internet mostly from their school or workplace.

Problems Specific to Slovakia or Central and Eastern Europe

When asked to list problems which can be specific to Slovakia or the region of Central and Eastern Europe, 39.3% of respondents listed poor and expensive Internet access, 14.8% indicated poor technical equipment, 14.8% named lack of possibilities to get rewards for taking an online course, and 11.5% named a lack of Internet resources in Slovak.

I believe it is not possible to determine issues completely specific for Slovakia or the region of Central and Eastern Europe, and hence cannot occur anywhere else. But by analyzing the data from this study, it is possible to create a list of issues related to local situations, which could be useful for course authors planning to provide courses in this region in the future. These issues are in connection with technical, socio-economic and cultural barriers, as were listed at the end of chapter four:

Related to technical barriers.

- Weaker infrastructure, problems with access to technology and the Internet.

Access to technology and the Internet is an inevitable condition for taking an online course. Infrastructure in Slovakia is weaker than in most of Western Europe or North America, but is slowly improving. A typical feature is the fact that Internet connections from home are rather expensive, hence most people access the Internet from their workplace or school.

Related to socio-economic barriers.

- Lack of motivation and skills on the part of teachers

Teachers at Slovak universities are underpaid and unmotivated. In many cases, teachers take on second jobs to improve their living standards. This leaves them with no enthusiasm for exploring innovative techniques. The quality of teachers is measured according to scientific results, not according to their teaching. There are very few initiatives or options for grants for developing innovative teaching methods.

- Lack of reward structure for student participation in online courses

The first online courses offered in Slovakia were in their pilot experimental phase and hence not yet included into the state system of reward or incentive structures for participation in them. Only for the UIE and UME courses could full-time students at Safarik University in Kosice receive some credits. Just over 14% of respondents pointed out the problem of a lack of rewards for taking an online course. All four courses recently applied for certification from the Ministry of Education to become part of the study program for First or Second Qualification exams for primary and secondary school teachers, and hence could lead to salary increases.

Related to cultural barriers.

- Teaching style/approach problems on the part of teachers

For a long time, regimes in Slovakia did not encourage independent thinking. Common patterns contained authoritative teaching styles and student memorization of facts. Online learning enhances the possibilities of a teacher's shift into a facilitation role. This is new for teachers and there is a strong tendency to view online learning only as publishing lectures on the web. However, in these four courses which were the subject of this research, students highly praised the

facilitative role and approach of the tutors. 26.2% said that the approach of the tutor was the most positive feature of their learning experience, and 18.0% marked it as the most surprising feature. This indicates that although wide-scale changes will be slow in coming, changes in the small-scale have already successfully begun.

- Label of low quality on distance education courses

Historically, distance or part-time learning has been labeled as lower quality in Slovakia. This was visible in how respondents answered questions as to whether they feel like online learning has a different educational value as opposed to face-to-face study. Many of those who answered “no” added comments like “I think it is at least as good as face-to-face courses” or “I really don’t think that this (online course) was any worse”. Surprisingly enough, 68.9% of respondents answered “yes” to the question, indicating, that they think that their online experience was even more valuable than a face-to-face course would be.

- Problems with independence and responsibility on the part of students

The Slovak higher education system still does not encourage independent thinking of students very much. Students are used to being asked to memorize facts and any other approach comes as a surprise. Having teachers as facilitators and students needing to take responsibility for their own learning is a new concept in Slovak education. Those who successfully finished one of the four online courses studied in this research did not seem to have any serious problem with the newness of the concept. However, it is possible that this could be one of the main reasons for high drop-out rates in some of these courses.

- Newness of peer collaboration

The concept of collaborative learning is new for Slovak education as well. However, as it was visible in the UIE course, if properly introduced and explained by the tutor, students can take to collaborative learning very enthusiastically.

- Language problems with Internet content

The majority of Internet content is in English and students who don’t speak English are often frustrated when realizing there is so much information they are not able to use. The number of Internet pages with content in Slovak or Czech is growing, and as well, knowledge of English keeps increasing among the Slovak

population. As is visible from Figure 10, knowledge of English seems to be highest among younger students.

CHAPTER ELEVEN

CONCLUSIONS AND IMPLICATIONS

In this chapter I summarize conclusions and provide recommendations for the future design of online courses in Slovakia and Central and Eastern Europe.

Conclusions

Among all issues, those which learners in the first online courses in Slovakia evaluated most positively were: time savings, scheduling and studying flexibility; feedback and technical assistance from their tutors; the option to use Internet resources.

Flexibility of time and space to study is a feature common to all distance education courses and routinely listed among the primary advantages of distance education in most basic books on the topic (Laurillard, 1993, Moore & Kearsley, 1996, Harasim et al, 1995). Online learning not only enables students more flexibility, but as well opens access to education for students whose family or working commitments would not enable them to participate in face-to-face learning and has always been one of the reasons why distance education courses have been developed in the first place.

Feedback from tutors is also listed in the same instructional books as one of the most important roles on the part of the course provider, to ensure success in online learning. However, from the comments of students in the Slovak courses, it seems like fast and effective feedback from tutors was as well, one of the most surprising features of their experience. This might be attributed to the autocratic tradition within the Slovak educational system, where fast feedback and an individualistic approach of a tutor is very unusual. As well, the issue of receiving fast and reliable technical assistance from tutors was referred to not only as a positive experience but as an unexpected and surprising experience, since this too is an approach rather unusual in recent Slovak tradition.

Using Internet resources while studying online seems to be a very natural course of action. Many teachers, even in Slovakia (Koubek & Pisut, 1999),

encourage students to use Internet resources for their face-to-face courses as well. However, from my interview and questionnaire results, it was evident that many learners first discovered the richness of Internet resources only while taking their first online course. It would be interesting to find out whether opinions of using Internet resources would still be so favorable among students taking their second, third or fourth online course.

Among the most negative issues overall, according to the students, were problems with English proficiency when dealing with Internet resources, problems with access and reliability of technology, feelings of isolation from tutor and other students and lack of support from employer.

The four courses that were the subject of this study were all developed and taught in the Slovak language, and all the literature necessary to complete any of the courses was available in Slovak, whether in print or online. Still, since students were naturally searching for more resources on the Internet, those of them who don't speak English very well have expressed strong frustration due to the inability to use all the information and resources which they found. English strongly dominates Internet content and there is a little chance that this situation will change anytime soon. However, the number of people learning English in Slovakia has been growing rapidly since 1989 and there is a chance that this problem among Slovak online learners will decrease, as there will be fewer people unable to comprehend resources in English in the future.

Problems with Internet access and reliability of technology is connected with weak infrastructure and economic situation in the country and is one of the features Slovakia shares with other countries of Central and Eastern Europe (Virkus, 1997, Grycz, 2000, Kudrjartseva, 2002, Sramek & Friebergova, 2000). However, the situation has been slowly improving during the last few years and there are hopes for faster improvement thanks to the structural funding of the European Union after Slovakia becomes a union member in 2004 (Jakab et al., 2002, Dado & Drozdova, 2003).

The feeling of isolation is a feature of online learning mentioned in basic instructional design literature (Laurillard, 1993, Harasim, 1995, Moore & Kearsley,

1996). Some books mention possibilities to overcome part of this problem by fast and supportive feedback (for instance Harasim, 1995). It was not possible to determine whether there was any connection between feelings of isolation and the quality of feedback within this study, mainly because any individual feedback came as a welcome surprise for learners and was praised very high. So the nuances in quality of feedback could not be distinguished.

Complaints about the lack of support from employers were coming mainly from primary and secondary school teachers declaring that their principals not only did not provide any means of better access to technology or lessening the load of other commitments during their study, but that they even put some efforts into making it harder for them to complete the course. Learners themselves suggested jealousy and fear of incompetence on the part of their principals as the main reasons for this behavior.

Questionnaire results in course related issues shifted towards positive values comparing to the results from interviews. This was mostly caused by the fact most participating learners had developed strong personal relationships with their tutors and were hesitant to negatively evaluate their tutor's approach and efforts. However, they were willing to talk more openly about negative experiences connected with their tutor's effort during an interview. It is possible this aspect was unique for this study, since these were the trial runs of the first courses, and in many cases learners have had personal relationships with their tutors even before starting the course. Therefore, I recommend attention be paid to these details when conducting similar studies.

After further analysis, I came up with the following list of eight key issues for online course development which seem related to local technical, socio-economic and cultural circumstances.

On technical circumstances:

- Weak infrastructure
- Problems with access to technology and the Internet

On socio-economic circumstances:

- Lack of motivation and skills on the part of teachers

- Lack of reward structure for student participation in online courses

On cultural circumstances:

- Teaching style/approach problems
- Label of low quality on distance education courses
- Problems with independence and responsibility on the part of students
- Newness of peer collaboration
- Language problems with Internet content

Technical circumstances, or weak technological infrastructure, is a problem in many other places in the world and is not specific to Slovakia or the region of Central and Eastern Europe. The socio-economic circumstances are historically connected with the Slovak educational system, which was first inherited from the Austro-Hungarian Empire, then was influenced by 40 years of socialism. Most issues listed under cultural circumstances are primarily related to the fact that very few changes have been made to the education system within the last thirteen years, since 1989. These problems are common to the whole region of Central and Eastern Europe, so it is reasonable to expect the same problems with online learning development in other countries in the region.

In other countries in the region, for instance in Czech Republic, development of online learning is slightly ahead of that in Slovakia. More courses have been developed and offered there (Zlamalova, 2002, Kveton, 2003). However, as far as I was able to determine, nobody has conducted comparable research to this study for Czech online learning development. But from reactions to results of this study at the most recent Czech conference on online learning in Prague (BELCOM 2003, February 17, with 150 participating university teachers), it seemed like almost all issues indicated within this research are common to both the Czech and Slovak Republics.

Recommendations for Course Design

Four different kinds of recommendations can be drawn from the results of this study. There can be recommendations for the developers of the four courses that were the subject of this study to improve their courses in the future. On a broader

level, there are recommendations for designers of future courses in Slovakia and in the region of Central and Eastern Europe. Then there are recommendations for the general development of online learning in Slovakia. Finally, some recommendations for future research are drawn.

At first, I will deal with recommendations concerning the particular design of the four courses that were the subject of this research.

Feedback from the tutor of the Evolution of Social Behavior course had been praised by its students, but still less positively than by students of the other courses. Tutors should find room for improvement in this area. Reliability of technology seemed to be more problematic in this course than within the other three, where greater efforts are recommended. Probably the major weakness of this course was the poor administration of participants, lack of a final assignment at the end of the course and lack of evaluation after the course. The tutor did not have good records of students, he was not even sure how many students had really finished the course, and without any evaluation after the course he was not aware of many of the problems students had dealt with. I strongly recommend increasing efforts in these areas, for these and all other courses in the future.

The Internet Innovation of Distance Education course was proof of the very positive influence training of course designers has on their products. Instructors and tutors of this course were the only ones among creators of the courses in this study who had gone through formal training on online course design. Their course had ranked best in feedback and reliability of technology, and received high scores in all course related issues. The only aspects to consider improvements in, as mentioned in interviews and open-ended questions in the questionnaire, were the students' wishes for at least one more face-to-face meeting besides the one at the beginning. Some of the students have declared that they found problems where they felt the need for practical demonstration only after about a week of dealing with the course environment, when no more face-to-face meetings were scheduled.

The Use of Internet in Education course was the only one in which the tutor put significant effort into encouraging peer collaboration between students. In this aspect the course can serve as an example for improvement of all the other three

courses in this study. This course should still focus on improvements in access of students to literature and reliability of technology.

The Use of Multimedia in Education course ranked high in the course description provided by the tutor, the initial orientation session and respect for previous knowledge of learners. However, this course could gain a lot by introducing more peer collaboration into its structure.

On a wider level, special recommendations for the design of future courses in Slovakia, or other countries of Central and Eastern Europe, can be issued based on the eight previously described context-related issues.

- Weak infrastructure and problems with access to technology and the Internet:

Course design should have technologies and structures selected according to the options available to the students, such as simple graphics or optional texts in CD or in print. This way, the course could avoid some of the bandwidth and quality of technology problems.

- Teaching approach problems on the part of teachers:

Teachers should realize that when developing an online course they should apply the new approaches required for this type of teaching. In the courses that were the subject of this study, this happened rather successfully.

- Label of 'low quality' of distance education courses:

Due to this perception, students often expect distance courses to be easier to swim through. This should be taken into account when designing an online course. Detailed explanations and course expectations should be a part of the introductory information given for the course, so that students are clear on the course's level of difficulty.

- Lack of reward/incentive structure for student participation in online courses:

This problem could be overcome by the teacher's efforts to get proper certification for his/her online course as soon as possible, enabling them to offer academic credit to students.

- Problems with independence and responsibility on the part of students:

This issue needs further research, but part of the problem can be overcome by frequent contact with students, along with fast, quality feedback, technical support, etc.

- Newness of peer collaboration:

Instructors wishing to use collaborative approaches need to be aware of its newness for students and make sure they understand the validity and value of the concept.

- Language problems with Internet content:

A smart instructional strategy would be to point out available sources in Slovak or Czech for the students, and make sure students will not inevitably require sources in English in order to complete the course.

There are, as well, some general recommendations towards development of online learning in Slovakia that can be based on the results of this study. Primarily, this study confirmed some answers to the often asked question: "Why should we introduce online learning in Slovakia?" There are many possible answers to this question. Among the most frequent reasons for introducing online learning in the world are (Bates, 2000):

- To improve the quality of learning
- To provide students with everyday information technology skills they will need in their work and life
- To widen access to education and training and increase its flexibility
- To respond to the "technological imperative", i.e. general assumption, that being up to date with new technology is good
- To reduce the costs and improve the cost-effectiveness of education

For the situation in Slovakia, this study has confirmed at least two of these reasons. Most of the questionnaire respondents in this study (68.9%) thought that the online learning they experienced had higher educational value than a face-to-face course in its place would have. This suggests that developing online courses can actually bring improvement in the quality of teaching and learning. Although only 9.8% of respondents said that they participated in an online course mainly because they did not need to travel to the school, 26.2% listed "time flexibility" as the most

positive feature of taking an online course. Most of them were suggesting that they could not possibly take such a course if it were not for this flexibility. This speaks towards the fact that online forms of learning increase access to education not only for those who would have problem with traveling to school, but as well for those who need time flexibility due to other commitments.

Recommendations for Future Research

People in Slovakia tend to be more open when interviewed than when filling out a questionnaire. When researching or evaluating an online course, if using questionnaires, it would be smart to combine this method with a few interviews or focus groups to be able to determine whether there might be differences in response.

There are some interesting topics worth more research on the issue coming out of this work. The first logical step after this research would be a deeper comparison of its results to any similar studies focused on students' problems conducted around the world. Another one, for instance, is a new study focusing solely on students who have dropped out of online courses, to determine their reasons for not finishing the course. Also interesting could be focusing deeper on the first experiences with peer communication and collaborative learning in online courses, to explore how both teachers and students are dealing with new concepts in teaching and learning.

This study was unique due to the fact that it was conducted on learners in the first Slovak online courses, which represent a specific group in specific conditions. The general validity of issues influencing students' experiences concerning technical, socio-economic and cultural circumstances in the region of Central and Eastern Europe should be confirmed by similar studies in other countries in the region, or after more courses are introduced in Slovakia. However, the above-mentioned reactions to these results at the Prague BELCOM conference could indicate that some of results are valid generally.

Getting Finished

Noah's ark carried the remnants of a previous way-of-life safely through tumultuous and changing times with the means to assure a bright and expansive future. Similarly, optimists and proponents of online learning in Central and Eastern Europe view it as the salvage vessel that will see an old and irrelevant system of education through difficult challenges with an assurance of better days to come. The Titanic, on the other hand, sailed on a maiden voyage carrying the hopes of all that modern technology had to offer, but became a rapid victim of the false sense of security that a dependence on technology brought to its passengers and crew. Likewise, the pessimists and nay-sayers of online learning contend that such impersonal methods and a heavy reliance on technology will cut a deep hole in the quality of learning and leave education in the region susceptible to a system that has not accounted for the socio-economic and cultural realities of the region today. Hence, in modern Slovakia, both proponents and critics of online learning can spin either of these metaphors into valid analogies for online education to support their positions. However, my research suggests to me that online learning in Central and Eastern Europe is more appropriately compared to a simple dugout canoe being pushed forward by the hard work of a few enthusiasts, with each new course offered as a unique creation of its author and as subjects for experiential learning for future development. As such, there is neither the hope of ultimate salvation, nor the specter of ultimate demise on this new path in education. Furthermore, with cautious and well-thought planning, and the promise of funding opportunities from the European Union, online education, in due time, might yet mature into an upright and secure sailboat riding harmoniously on the steady wind of modern technology and cultural acceptance.

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6. What is your education/professional experience? (please list schools where you studied, and positions you have worked in)

7. Why did you decide to take an online course?

8. What were your expectations about the online course?

9. What about the learning experience was new and unique?

10. What was surprising or unexpected?

11. What were the most positive aspects of the course?

12. What were the most negative aspects of the course?

B). Issues Connected with the Course Structure, Design and Student Support.

1a: Were the detailed course description, goals and expectations and syllabi available on the course web site in a clear and understandable form? _____

1b: What influence did the presence (or lack) of course descriptions, goals and expectations, outlines and syllabi, on the course web site have on your learning experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

2a: Did you participate in an initial course orientation (initial meeting or online initial orientation at the beginning of the course)?

2b: What influence did the initial course orientation have on your learning experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

3a: Did you feel that the course authors showed respect for your previous knowledge of the field? _____

3b: Could use your previous knowledge and experience in the field while taking this course?

3c: What influence did the course authors approach to your previous knowledge have on your experience of studying this course (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

4a: Do you think that media used in this course were relevant to its content?: _____

4b: What influence did the choice of media for the course have on your experience of studying this course (choose one):

- ☐ very negative influence
- ☐ moderate negative influence

- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

5a: Did you have sufficient access to literature and other online resources for studying in this course? _____

5b: What influence did your access to literature (or lack of it) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

6a: Did the tutors respond quickly and provide quality feedback to questions and assignments from students? _____

6b: What influence did the feedback from tutors have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

7a: Did you interact with other students in the course (discussions through the course site, collaboration on the assignments)? _____

7b: What influence did the interaction with peers (or lack of it) within the course have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

8a: Did the course authors' and tutors' encourage student discussion and cooperation within the course? _____

8b: What influence did the course authors' and tutors' efforts (or lack of it) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

9a: Did you interact with course participants outside the course (discussions about the course and/or collaboration with friends or colleagues who were taking the course)? _____

9b: What influence did unofficial interaction with your peers have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

10a: Did the course authors and tutors provide sufficient technical assistance for the students?

10b: Did the technical assistance (or lack of it) have an influence on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

11a: Was the technology, (course web site, server) reliable and easily accessible?

11b: What influence did the reliability/accessibility of the course site have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

12a: Did the course providers make an attempt to prevent cheating and plagiarism on the part of the students?

12b: What influence did the course provider's efforts (or lack of) to prevent cheating and plagiarism have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

C) Issues connected with personal experience, education background and family situation

13a: Did the structure and content of the course meet your expectations? _____

13b: What influence did the difference between your expectations and the reality of the course have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

14a: Did you feel that online learning had a different educational value in comparison to face to face learning?

If yes, how?

14b: What influence did the feeling of a difference in educational value have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

15a: Did the online course allow you flexibility to study when it suited you? _____

15: What influence did the timing flexibility of the online study have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence

☐ very positive influence

16a: Do you think that generally you saved time by studying online (was your overall study time during the course shorter in the online form than it would be in a face-to-face form)? _____

16b: What influence did these general time savings (or lack of) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

17a: Did you save time by having the option of flexible time management in an online form of study (by fitting the study time between your other work and family responsibilities)? _____

17b: What influence did this flexible time saving have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

18a: Did you make use of resources on the Internet for studying or working on assignments during the course? _____

18b: What influence did the use of Internet resources have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

19a: Did the fact that most of the information on the Internet is in English cause you any problems? _____

19b: What influence did the fact that Internet resources are mostly in English have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

20a: Did you have the feeling that there was too much information to deal with from the course and Internet resources you used? _____

20b: What influence did the amount of information within the course and online resources you used have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

21a: Did you have support from your family while studying the course?

21b: What influence did the support from your family (or lack of) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

22a: Did you have support from friends or colleagues while studying the course? _____

22b: What influence did the support from friends or colleagues (or lack of) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

23a: Did you feel like you had enough technical experience for studying online?

23b: What influence did your technical experience or proficiency (or lack of it) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

24a: Did you feel anxious or nervous about being able to manage all the technical requirements of the course? _____

24b: What influence did the anxiety or nervousness about managing the technical requirements of the course have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

25a: Did you experience any problems during the course while using technology to communicate with your tutors or classmates? _____

25b: What influence did communication problems have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

26a: Did you feel lonely or isolated during the course because of physical separation from your tutors and classmates? _____

26b: What influence did the feeling of loneliness or isolation have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

27a: Did you feel shy to communicate, to express yourself when using e-mail or web-based (written form) communications with your tutors or peers?

27b: What influence did the shyness to communicate when using technology have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

28a: Did you feel more freedom to express yourself when communicating with your tutors and peers in written form via e-mail or the web-site? _____

28b: What influence did the freedom to express yourself better (or lack of) have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

29a: Did you feel that the discussion within the course in written form was of higher quality and more to the point than it would be in a face-to-face course? _____

29b: What influence did the quality of written discussions in the course have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

D) Issues connected with institutional and organizational setting of the learner

How did you access the Internet to participate in the course? (choose one):

- ☐ mainly from home
- ☐ mainly from my workplace/school
- ☐ both

30a: Did you experience any problems accessing technology (computer and Internet) when you needed them to study for the course? _____

30b: What influence did problems with access to technology have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

31a: Did you experience any problems with the reliability of technology (poor computer, slow or non-working Internet connection) during the course?

31b: What influence did problems with technology reliability have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence

- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

32a: Did successful participation in this course have any influence on your job promotion? _____

32b: What influence did the possibility of job promotion have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

33a: Did successful participation in this course have any influence on your salary? _____

33b: What influence did the possibility of salary increase have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

34a: Did successful participation in the course result in credits or marks which would count towards a longer study program you are participating in? _____

34b: What influence did this option of receiving useful credits or marks for your study program have on your experience (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

35a: Did you have support from your employer (reduced hours of work to have more time for study) during the course? _____

35b: What influence did this support have on your experience? (choose one):

- ☐ very negative influence
- ☐ moderate negative influence
- ☐ no influence
- ☐ moderate positive influence
- ☐ very positive influence

E) Concluding questions

1: Can you think of anything else that influenced your learning experience that we have not mentioned here?:

2: From your point of view, which issues influencing the experience of students in online course could be specific only to Slovakia or the region of Central and Eastern Europe?

3. Based on your experience, how can the online course be improved?

4. Based on your experience of this course, would you enroll in another online study course? _____

Thank you very much for your cooperation!!!!