

**Towards a Lifelong Learning Society in Europe:  
the Contribution of the Education System**

**LLL2010**

**WORKING PAPER N° 35**



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**Lifelong learning in 2010: Survey of adults continuing studies in the  
formal education system in Bulgaria**

**LLL2010  
SP3 Country Report**

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**SURVEY**

**OF ADULTS CONTINUING STUDIES**

**IN THE FORMAL EDUCATION SYSTEM**

**NATIONAL REPORT BULGARIA**



Institute of Sociology

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November 2008



# **Chapter 1.**

## **National policy and practice: The role of education system**

### **1. Headlines of country-specific LLL policy since the formulation of the Lisbon objectives**

The EU policy has crucial importance in forming LLL policy in Bulgaria. As stated in the National Report “Education and Training 2010”, published before the accession of the country to the EU: “The Republic of Bulgaria... takes into account the European strategies, policies and practices in the domain of education and training in the development of its national policy...”

In response to the Lisbon strategy several successive Bulgarian governments initiated different legislative acts arranging continuing, among other issues, vocational education. The only normative document entirely oriented to LLL is the National Strategy on Further Vocational Training 2005-2010 (2004). The existing LLL practices are regulated by a series of normative acts not specifically dedicated to LLL: Employment Promotion Law (2001), Employment Strategy 2004-2010, National Action Plan for Promoting Employability for 2006, etc. The Employment Strategy 2004-2010 defines as action priority “Improvement of quality of human capital and stimulating the policy of LLL”. It is in it that we find the most elaborated national concept for LLL and its policy. The National Action Plan for Promoting Employability for 2006 states that “we will strive for widening access to and raising quality of LLL, in order to enhance the suitability for employment of labour force“. It envisages different educational policies: widening access to education; guaranteeing equal access to quality education; reducing the number of dropouts, adapting the educational system to the needs for new competences, etc.

In 2006 the government, trade-unions and the organizations of employers signed Pact for economic and social development until 2009. Among the actions envisaged by the Pact is the elaboration till June 2007 of National Strategy for LLL as well as “increase of the investment in human capital with the aim of involving by 2009 of no less than 7-8% of the economically active population in LLL”. The Strategy for LLL is still in preparation.

The National Strategy on Further Vocational Training 2005-2010 defines five priorities: 1) Facilitating the access to further vocational education; 2)

Improving the effectiveness in the coordination among the institutions; 3) Providing high quality education; 4) Increasing investments, and 5) Research on further vocational education.

The importance assigned to further vocational training reflects the governmental policy for increasing the investments in human resources as a means for promoting employment. It is also viewed as a way to answer the strong concerns which recently have been constantly expressed by the employers about the quality of education provided by the formal education system.

According to the Law of Vocational Education and Training, 1999 the first level of formal education which is authorized to deal with education of adults is the secondary education (vocational high schools). From the point of view of the professional component of LLL the role of formal educational system (especially through the centers for vocational training and centers for post-diploma qualification at higher schools) is more important than the role of non-formal education. As far as the personality-development component of LLL is concerned the role of non-formal and informal education is more significant.

The way LLL has been defined and operationalized at policy level could be criticized for: a) its narrow vocational perspective, which underestimates the personal and citizenship meaning of LLL; b) substituting the notion of education with the notion of training.

## **2. Provision of adult education: which forms of adult education are organised in your country**

### **A) Formal education and training**

The formal education system is involved in LLL activities in two ways: a/ by organizing evening and extra-mural classes for adults and b/ by establishing special units for continuing education at schools and universities.

The formal institutions offering different forms of LLL are: evening schools; vocational high schools, colleges, higher schools and universities, centers for post-diploma qualification at higher schools.

Due to the activities of the National Agency for Vocational Education and Training (established in 1999) centers for vocational training have been established, which become more and more important part of the formal system for vocational training.



## **B) Non-formal education and training**

Non-formal education and training is provided by enterprises, community centers (chitalishta), NGOs, foreign cultural centers, private educational units.

According to the Employment Promotion Law (2001) the professional training for adults is organized not only by the Ministry of Education and Science but also by the Employment Agency.

About 28% of the enterprises carry out non-formal continuing professional education.

During the last years at the state level target oriented programmes with LLL modules have been developed: National Plan for Combating Poverty and Isolation, National Programme for Roma People Qualification and Literacy, National Programme for Training of Disabled People, National Action Plan for Equal Opportunities for Women and Men.

The Community centers (chitalishta) play a crucial role in relation to the personal and citizenship perspectives on LLL. Being unique traditional self-managed units in Bulgaria, they function as a “training fields” for acquiring skills for managing collective activities.

## **C) Informal learning**

Informal learning as self-directed learning is acquired by processing visual, auditory, etc. information from sources like books, internet, other mass media, museums, etc. Recently internet has become the main source of informal learning gradually replacing public libraries.

According to the Employment Promotion Law 1) the unemployed who engage in vocational training are entitled to stipends, 2) in order to exclude passive labour market attitudes an amendment to the Employment Promotion Law was passed in 2005, which introduced a sanctioning provision for deregistration of unemployed persons who refuse to take up offered appropriate training.

The key stakeholders in LLL - the Employment Agency, Ministry of Education and Science and Ministry of Labour and Social Policy - are responsible for the communication of the supply of adult education. They expose the relevant information through electronic and non-electronic means. A special role in the

communication of LLL activities is played by the Centers for information and professional orientation.

### **3. Peculiarities of the educational system: to what extent and at which level the formal educational system deals with adult learners**

*In the sphere of primary and secondary education* the forms of schooling stipulated in the current Law of National Education are: daily, evening, extra-mural, individually tailored, independent, distant, and correspondent. According to the Law of National Education evening and mixed schools are opened for students above 16 years old. In the academic 2005/2006 year there were in Bulgaria 25 evening schools with 2618 students. The students who graduated from evening schools have the same rights as the graduates from the daily schools. Part of the formal educational system are the schools at prisons where students above 16 years are educated in all grades of basic and secondary schools. In 2006 there were 6 such schools with more than 450 students. Both the evening schools and the schools at the prisons are state owned and financed.

The Law of Vocational Education and Training from 1999 defines the different educational institutions which can provide adult vocational education - vocational schools, vocational high schools, vocational colleges, centers for vocational training, centers for qualification of trainees. Ministries, municipalities, employers' organizations, trade unions and single employers are also entitled to organize training for professional qualification. The Law envisages the following programmes (as well as their corresponding entry requirements) for training of individuals older than 16 years: 1) 1 year Programmes A for initial vocational training for people who have completed at least 6<sup>th</sup>-grade; 2) 1 year Programmes B for initial vocational training for people who have completed either a secondary education grade or a full secondary education; 3) 4 or 5 year Programmes C for vocational education for people who have completed basic education; 4) 2 year Programmes D for vocational education for people who have completed secondary education; 5) Programmes E for continuing vocational training whose duration is stipulated with specific documents related to vocational education.

All these programmes are organized as qualification courses. The forms of training and their duration are determined by the training institution and can be coordinated with the warrantor of the vocational education. The programmes A, B, C and D are specified for each profession and are harmonized with the state educational requirements for professional qualification. The remaining programmes are specified with the documents related to vocational education. The vocational schools and the vocational gymnasiums are entitled to carry out

training in these programmes. The organization as well as the material and financial provision of the training are arranged with a contract between the school director and the financial provider. The state educational requirements for professional qualification are elaborated by the Ministry of Education and Science in collaboration with the Ministry of Labour and Social Policy, the branch ministries, the employers' organizations and the national trade unions. All the educational programmes for people older than 16 years which do not comply with the state educational requirements are approved by the National Agency for vocational education and training.

The state and the municipal vocational schools, the centers for vocational training and the centers for qualification of trainees are financed by the state budget, the municipalities, donations from different sources, by international programmes and other revenues. The educational programmes which do not comply with the state educational requirements are financed by physical and legal persons according to a signed contract.

The vocational schools and the centers for vocational training are opened predominantly to people more than 16 years old who have acquired relatively low levels of education, do not have professional qualification and/or are unemployed.

According to the Law of Higher Education the forms of *higher education* are daily, extra mural, evening and distant. During the academic 2005/2006 there were 43 universities and higher schools, 10 independent colleges and 40 colleges functioning within the universities and higher schools. Among them there are 7 private universities and higher schools and 9 independent private colleges. The state universities and higher schools are financed mainly by the state as well as by the municipalities, student taxes and different projects. The students in the state higher schools pay taxes which are determined by the Council of Ministers, and whose amount is up to 30% of the normatively fixed expenditure for the particular professional field. The lowest taxes are in the fields of social sciences (between 140 and 200 Euro per academic year) and natural sciences (between 150 and 250 Euro per academic year). In engineering the students pay about 250 Euro per academic year. The highest taxes are paid by students in medicine and art – between 400 and 500 Euro per academic year. The budget of the private higher schools is formed by the students' taxes as well as by donations and different projects. The students in the private higher schools pay taxes which are determined by the corresponding higher schools. The average fee at private higher schools is about 1000 Euro per academic year.

The total number of students (both in state and private higher schools) is as follows:

2002/2003 – 230513, including 161497 (70%) in regular daily training  
2003/2004 – 228468, including 159217 (69,7%) in regular daily training  
2004/2005 – 237909, including 166759 (70%) in regular daily training  
2005/2006 – 243464, including 168986 (69,4%) in regular daily training  
2006/2007 – 258692, including 177267 (68,5%) in regular daily training

The total number of students in private higher schools is as follows:

2002/2003 – 30984 (13% from all students)  
2003/2004 – 32802 (14,3% from all students)  
2004/2005 – 39099 (16,4% from all students)  
2005/2006 – 45144 (18,5% from all students)  
2006/2007 – 50685 (19,5% from all students)

The number of PhD students is:

2002/2003 – 4440  
2003/2004 – 4834  
2004/2005 – 5079  
2005/2006 – 5163  
2006/2007 – 4816

During the early 90-ies almost 60% of the school leavers entered higher education institutions. During the late 90-ies this percentage decreased: for example, in the academic 1999/2000 year 35.6% of school leavers entered higher education. The proportion of enrolments in higher schools in the 19-23 age group for 2002/2003 is 23.9%; for 2003/2004 – 24.1%; for 2004/2005 – 25.8%; for 2005/2006 – 26.4%.

About 1/5 of the total number of students in the higher schools are older than 25 years. The average age of students is close to that in EU, a little less than 22 years.

The educational process in all higher schools is organized on the basis of credit system – no less than 180 credits for acquiring the degree “professional bachelor in...”; no less than 240 credits for bachelor degree and no less than 300 credits for master degree. The credit system makes possible the students’ mobility between different higher schools. As far as the mobility within the particular higher school is concerned, it is regulated by its own statute.

In all higher schools *special centers for continuing education and re-qualification* are created. These centers train adults who have already acquired

bachelor or master degree. For their education the adults pay taxes defined by the higher schools themselves. The Law for Higher Education defines the advancement of qualification of bachelors and masters as one of the main activities of the higher schools. This adult education is carried out according to the requirements formulated in the statutes of the higher schools. It is not considered as a reason for awarding an educational degree or a speciality.

Description of the number of participants in formal/non-formal adult education: description of amount by educational level, age, sex and other socio-demographic characteristics (ethnic background, marital status etc.)

The table below provides data about the number of students in different institutions of formal education by age and gender. Adults are mainly involved in tertiary education.

### Students in formal education by gender and age groups in 2007/2008

Age groups	Primary education		Lower secondary education		Upper secondary education		Tertiary education		Post secondary non-tertiary education		Post-graduate education	
	Total	% of women	Total	% of women	Total	% of women	Total	% of women	Total	% of women	Total	% of women
<b>Total</b>	<b>262701</b>	<b>127410</b>	<b>256231</b>	<b>121126</b>	<b>337090</b>	<b>162786</b>	<b>264463</b>	<b>146324</b>	<b>4020</b>	<b>2180</b>	<b>17321</b>	<b>10317</b>
Under 7	1,57	1,73										
7-10	94,61	94,85	1,67	1,85								
11-14	3,36	3,04	92,81	93,59	8,67	9,97						
15-19	0,40	0,34	5,39	4,46	89,54	88,61	13,10	13,37	14,98	16,47	7,15	6,75
20-24	0,02	0,02	0,06	0,05	1,15	0,83	58,87	59,63	55,95	51,28	16,62	15,30
25-29	0,04	0,02	0,06	0,05	0,64	0,59	15,66	14,19	29,08	32,25	15,02	15,04
30-34							5,93	5,73			14,46	14,65
35-39							3,41	3,65			13,49	13,33
40+							3,04	3,42			33,26	34,93

Source: National Statistical Institute

As a general impression, we can claim that since 1989 there has been a clear tendency of increase in the number and the diversification of the institutions offering LLL. Especially discernable is the effort of the state to support vocational education and re-qualification of people over 16 years of age by licensing Centers for vocational training. Another peculiarity is the introduction and spread of programmes targeted at concrete social groups, such as Roma people, low literate, long-term unemployed.

According to the data from Eurostat the participation rate of Bulgarians in LLL, seen in comparative perspective, is very low. For 2007, the percentage of the participation of Bulgarian population aged 25-64 in education and training (over the four weeks prior to the survey) was 1.3%, whereas for EU-25 it was 10.3% (Eurostat). According to data from Labour Force Survey of 2003, only 1.2% of

the Bulgarians aged 25-64 participated in formal education, 1.7% - in non-formal, and 15.4% – in informal education (the analogous percentages for EU-25 were 4.5%, 16.5% and 32.5%). Women, unemployed and inactive population, as well as people with higher educational level are more committed to study in institutions of formal education (see Annex, Figures 1-4). Women, unemployed and inactive population, as well as people with highest educational level are more committed to study in institutions of formal education (see Annex, Figures 1-4). Even more embarrassing is the fact that in a recently published by the Commission of the EC document the Bulgarian performance progress in the area of lifelong learning is estimated as “falling further behind” (Progress towards the Lisbon Objectives 2008: 13-14).

The participation in lifelong learning of *Bulgarians who are employed* is comparatively low, too. The data from CVTS-2 and CVTS-3 revealed one more fact that alarms – few positive changes and even an aggravation of some of the indicators related to continuing vocational training. For the period 1999-2005, the percentage of training enterprises increased negligibly – from 28% up to 29%. There is an increase in the participants in CVT courses and in the enterprises providing CVT courses. However, the number of hours in training per employee remained unchanged – 4. At the same time the percentage of enterprises with a training plan diminished from 22% down to 9%, of the enterprises with a training budget – from 15% down to 6% and of the enterprises with a training centre - from 7% down to 5%.

Of the Bulgarians who are employed, only 0.9% were involved in *formal education*, which means 23,000 people (for the EU-25 countries this percentage was 4). The distributions according to sexes and levels of completed education showed trends characteristic of other European countries as well. The point is that women and people of higher levels of education demonstrated a higher educational activity – 1.1% of the employed women in Bulgaria and 0.7% of the employed men participated in formal education, 0.7% of the employees of completed secondary education were involved in formal education, and those of higher education amounted to 1.8%.

The data pointed out clearly outline the picture of the low participation of Bulgarian employees in forms of continuing training. Besides, formal education is the least preferable form of training (2% of the Bulgarian employees were involved in non-formal, and 21.5% – in informal education; the analogous percentages for EU-25 were 20.6% and 36.9%) (Eurostat LFS 2003). Apparently, as enterprises so employees are not convinced of the advantages of the participation in formal education, and the existing institutional and normative conditions do not stimulate them to have more active contacts with the institutions of the formal education system.

## Chapter 2.

### Description of broader macro-level context

#### A. Key context

##### 1. Characteristics of the system of initial education

The system of initial education in Bulgaria subdivides into general and vocational. There are elementary (four years), basic (three years), and secondary (gymnasia, 4-5 years) school levels of general education. At least six years of general education are needed in order to start vocational education.

The specialized vocational institutions are subdivided into:

- art schools which provide four years courses;
- vocational gymnasia, after 7<sup>th</sup> grade or basic education, which provide five or six year programmes;
- vocational gymnasia or four year vocational school, after 7<sup>th</sup> grade or basic education, providing four year programmes;
- vocational schools after 6<sup>th</sup> and 7<sup>th</sup> grade providing three years training;
- vocational schools after 8<sup>th</sup> grade lasting two years;
- post secondary vocational colleges providing training through programmes of two years duration.

The schools within the formal vocational education and training (VET) system can be classified into two basic types (Initial Training VET).

The first type includes four-year vocational schools and vocational gymnasia (4 to 6 years) which provide:

- obligatory general education minimum necessary for secondary education;
- obligatory vocational training which includes general, branch and specific professional training, obligatory foreign language studies related to the profession and optional studies - mandatory elective and freely elective.

The second types are vocational schools (in certain cases, classes) usually providing two or three year VET programmes upon completion of grades 6, 7 and 8. These programmes lead to vocational qualification without acquisition of secondary education diploma e.g. students graduate with basic education.

Obligatory vocational education and training, provided by the vocational schools and gymnasia, includes theoretical education and practical training.

Practical training is organized as professional practice and can be carried out in:

- educational and production facilities of the one's own schools;
- educational and production facilities of similar schools or centers for vocational training in the Republic of Bulgaria and abroad;
- enterprises of physical and legal persons.

Vocational training can also be provided at the work place.

The system of the Bulgarian vocational education and training remains strongly centralized and meets the same standards nationwide.

According to the Bulgarian legislation there are state educational requirements (SER), which determine the necessary components of general and vocational education and training. These requirements specify the educational goals, the entry conditions, the structure and content of education, the organization of practical training and the necessary results for all trainees upon completion of a given educational or a professional qualification degree. The practical training in vocational schools is carrying out according to the state educational requirements for acquiring of professional qualification. The organization and finance of practical training are carried out according to the conditions and the order, issued by the Minister of Education and science in co-ordination with the Minister of finance. Vocational education is carried out through state school-leaving examinations for completion of secondary education, according to the Law for educational degree, the general educational minimum and the curriculum; as well as trough state examinations for acquiring vocational qualification – theory of profession and practice.

Training in each vocation is determined by the following conditions:

- a requirement for a minimum educational degree;
- a requirement for the duration of training;
- a requirement for the degree of professional qualification.



## **2. Skill formation system**

The further education in skill formation is organized through:

- post secondary vocational colleges providing ISCED 4C vocational training programmes of 2 year duration. Students enter into these programmes after completing secondary education. The training in post-secondary programmes leads to higher level of vocational qualification. In the Bulgarian case this corresponds to level 4 of professional qualification and managerial responsibilities job profile;

- centers for updating qualification and for re-qualification at the higher education schools;

- vocational training centers for acquiring qualification in certain elements of a profession or for updating the acquired qualifications as well as for awarding first, second, and third degrees of vocational qualification;

- educational adult courses offered by different NGOs and firms with varied length and intensity, such as language courses or computer courses.

There are no reliable quantitative data to evaluate the relative weight of initial and further education in skill formation. Based on some qualitative observations we think that there is an increase of the number of people involved in further education but the role of initial education is still predominant.

Vocational training centers (which are parts of formal education system) as well as NGOs and firms provide vocational education outside the formal education system. The Vocational training centers teach pupils over 16 years of age and function according to the Vocational Education and Training Law. These centers issue certificates for vocational qualification in 4-different degrees corresponding to ascending complexity, variability, and personal responsibility and in accordance with the state educational requirements. Vocational training centers are licensed and coordinated by the National Agency for Vocational education and training (NAVET) established with the Vocational Education and Training Act in 1999; it is a Council of Ministers' body.

Vocational training centers are licensed and coordinated by the National Agency for Vocational education and training (NAVET) established with the Vocational Education and Training Act in 1999; it is a Council of Ministers' body.

The courses for adults offered by NGOs and firms issue certificates based on assessments during the course and the results of the final exams. After completing certain level the individual can go to the next one. Few forms of non-formal education do not end with concrete qualification. In these cases no assessment is made, only attendance is certified by a document.

At the national level there is no system for accreditation and recognition of non-formal and informal learning.

The Labor Code envisages two types of contracts concerning professional qualification. Both contracts are between the employer and the employee as individuals thus revealing an intention to negotiate their roles in skill formation as individual actors.

The VET system in Bulgaria faces major challenges and problems, including the following:

- Insufficient financing: Based on 2003 data submitted by the National Agency for Vocational Education and Training (NAVET), public expenditure for vocational education (qualification levels ISCED 2, 3 and 4) comprises merely 1.4% of total public expenditure. This is a rather insignificant portion, given that public expenditure for education amounts to 9.6% of total public expenditure.

- Strong centralisation: The main source of financing is the state budget, apart from the odd occasion when the municipalities provide funding. Again, according to 2003 NAVET data, public expenditure for vocational education (levels ISCED 2, 3 and 4) amounts to BGN 191.3 million (€8.5 million) – nearly 211 times more than private expenditure in the system, which amounts to approximately BGN 904,000 (€465,476).

- Lack of hands-on training: Practical training is currently only being applied in workshops set up by schools, which are often insufficiently or inadequately equipped. Due to weak relationships between vocational schools and local enterprises, there is little opportunity for hands-on practical training in a real production environment.

- Underdeveloped distance-learning network: The e-learning practice needs to be investigated and developed further to promote further education nationally.

### **3. Labor market organization – influences on the development of specific skill formation system**

The Labour Code and the Employment Promotion Law guarantee the Employment protection. There is a special section in the Employment Promotion Law, devoted to employment protection. This law also stipulates important stimuli for employers who invest in the training of their employees, especially in the case of unemployed. According to this law an Employment Agency is established for carrying out the state policy in employment promotion and protection (Review of National Policies).

According to the Law of VET the organizations of employees on the national level:

1. Participate in the updating of the state educational requirements for acquiring qualification on professions;
2. Participate in the development, updating and coordination of the List of Professions for VET;
3. Appoint their representatives in the managing board and the expert commission for vocational orientation of the National Agency for VET.
4. Defend the interests of trainees before the employers;
5. Participate in organizing and holding the examinations for acquiring professional qualification;
6. Appoint their representatives to the expert commissions of the National Agency for VET.

According to Vocational Education and Training Law the organizations of employers:

1. Participate in the development and updating of the List of Professions for VET;
2. Propose changes in the Law of National Education regarding the institutions of VET;
3. Participate in the development, and updating of the state educational requirements for professional qualification;
4. Participate in the organization and holding of examinations for professional qualification;
5. Appoint their representatives in the management board and in the expert commissions of the National Agency for VET.

After 2000 there is a transition from a policy based on passive social protection to an active approach in labor market policy, which is expressed in:

- directing efforts from benefit provision towards employment provision and training;

- increasing motivation of individuals through promotion of better links between career development and training;
- supporting the employers in understanding the value of continuing education;
- encouraging new practices in sharing financial responsibilities between the state, enterprises and individuals;
- implementing differentiated approaches, i.e. focusing on individual problems by paying attention to the unemployed who are actively seeking jobs, to the discouraged workers and disadvantaged people;
- encouraging entrepreneurship and independent business activities;
- creating new jobs.

## **B. Broader context**

During the last decade and especially during the last several years there has been a relatively high and stable economic growth in Bulgaria. The average percent for the GDP growth per year has been more than 5% and the average for the last three years is more than 6%.

There is also a stable tendency to decrease in the unemployment rate – from 12.67% in 2004 to 9.1% in 2006 and 6.8% in the beginning of 2007.

According to the rating made by the Swiss Institute of Management Development in 2006 Bulgaria is 16th on the openness of the economy and growth of the export. This is closely related to such data like national export, import and stock of direct foreign investment which according to 2006 estimates are correspondingly 15,06 billion; 21,87 and 20,86 billion \$ (compared with GDP in official exchange rate 28,01 billion \$ and with GDP in purchasing power parity 79,05 billion \$).

Against this relatively optimistic background the situation with the innovation rate is much more problematic. According to the estimates of EIU Bulgaria occupies 42 place on the innovation scale and the forecast is that in the next 4 years the country will step down to 46 position. One of the main reasons is the problem on the interface between the business and R&D and education complex.

This broader context sends contradictory signals, which are contra-productive for the process of skill formation.

## Chapter 3.

### Methodology

#### Sampling

At the first stage we selected five institutions at ISCED levels 1 and 2; 21 institutions at ISCED level 3; 23 institutions at ISCED level 4; and 15 institutions at ISCED levels 5 and 6. The final sample comprised 5 institutions at ISCED levels 1 and 2; 20 institutions at ISCED level 3; 20 Institutions at ISCED level 4 and 15 institutions at ISCED levels 5 and 6.

The type of courses selected and the students enrolled in each one of them per educational institution are presented in Annex 2.

*In summary* The overall envisaged sample was 1181 and the final actual sample 1030. It was distributed as follows: 253 respondents at ISCED levels 1 and 2; 268 respondents at ISCED level 3; 251 respondents at ISCED level 4; and 258 respondents at ISCED levels 5 and 6. Male – 53,2%, female 46,8%. Age ranging of respondents is between 16 and 65 years.

The sample of respondents was compared with the number of students in formal education in the general population because no reliable information is available about the effective population of adult learners in formal adult education in Bulgaria. The results are given in the Table below:

	<b>ISCED 1+2</b>	<b>ISCED 3</b>	<b>ISCED 4</b>	<b>ISCED 5+6</b>	<b>Total</b>
<b>Observed</b>	253 (24.6%)	268 (26.0%)	251 (24.4%)	258 (25%)	1030
<b>Students in general population</b>	532 769 (45.9%)	362 693 (31.2%)	38 553 (3.3%)	226 923 (19.6%)	1160 938

## **Questionnaire preparation**

The questionnaire was translated into Bulgarian by a specialist translator and members of the team. The quality of the translation was guaranteed by the application of the parallel blind technique for some of the questions. No compulsory questions were omitted. We included additional questions suggested by the Norwegian, Austrian and Bulgarian teams.

## **Training of the interviewers**

Before field work we carried out training of the interviewers. We had to carry out interviews in penitentiaries – we trained insiders of the prison administration to conduct these interviews. The interviewers from the country were invited for a one-day session in Sofia where they were trained by the members of the research team. The interviewers from Sofia were also trained in a one-day session. For some of the clusters in Sofia the interviewing was carried out by members of the research team. This was done mainly for clusters at higher schools and universities where they teach. The overall number of the interviewers was 45.

## **Survey methods**

During the field work we used different survey methods applicable to the different ISCED levels. Thus, for ISCED levels 1 and 2 we used group written interview. When some of the respondents, included in the group written interview, had difficulties with (parts of) the questionnaire, they were given additional explanations by the interviewer. For ISCED levels 3 and 4 we used group written and face to face method, and for ISCED levels 5 and 6 - group written, face to face, telephone interviews and completing of the questionnaire online.

## **Nonresponses**

The overall number of nonrespondents was 151. The reasons were the following: 68 of them turned not to belong to the target group; 34 considered the interview either too long or/and too complex; 49 respondents were not available during the survey.

## Chapter 4.

### Learners' experiences and perspectives (Descriptive analysis)

#### 4.1. Comparison of learners' experiences and perspectives by ISCED level

##### 4.1.1. ATTITUDES: How do adult learners feel about LLL?

Bulgarian respondents on the whole have a vigorously positive attitude to life long learning (Annex 3, Table 1). This is displayed fully by the cumulative index of LLL attitude, with values ranging from  $-3$  to  $+3$ . The largest accumulations are around value  $+3$  (44.6%). At  $+2$  the frequencies are 16.8%, while at  $+1$  they are 20.5%.

By ISCED levels at value  $+3$  the greatest share belongs to the ISCED 4 respondents (56%) and the relatively lowest frequency is displayed by ISCED 1+2 respondents (31.6%). The remaining ISCED levels have approximately comparable frequencies: 42.5% of ISCED 3; 47.6% of ISCED 5+6.

The negative attitudes to LLL, e.g. answers ( $-3$ ;  $-2$ ;  $-1$ ) have low frequencies on the whole. At value  $-3$ , the frequencies for all ISCED levels are below 1%; at the values  $-2$  and  $-1$  there are also low frequencies, respectively 1.9% and 7.6%. At the two values ( $-2$  и  $-1$ ) the greatest share belong to ISCED 1+2 adult learners (4.8% и 13.6%) and ISCED 5+6 respondents, respectively (2.4% и 9.1%).

The data reveals a picture in which Bulgarian respondents definitely demonstrate a positive attitude to LLL (81.9%), varying in the range of agreement (quantitatively expressed in the frequencies of the positive values); with almost half of the respondents clustered at value  $+3$ .

Results show significant dependence between "LLL attitudes" and "education level" of Bulgarian respondents, Chi-Square (18, N = 977) = 77.41,  $p < .05$ . ANOVA analysis also shows a remarkable influence of the "level of education" on the "LLL attitude",  $F(3, 973) = 19.93$ ,  $p < .001$ .

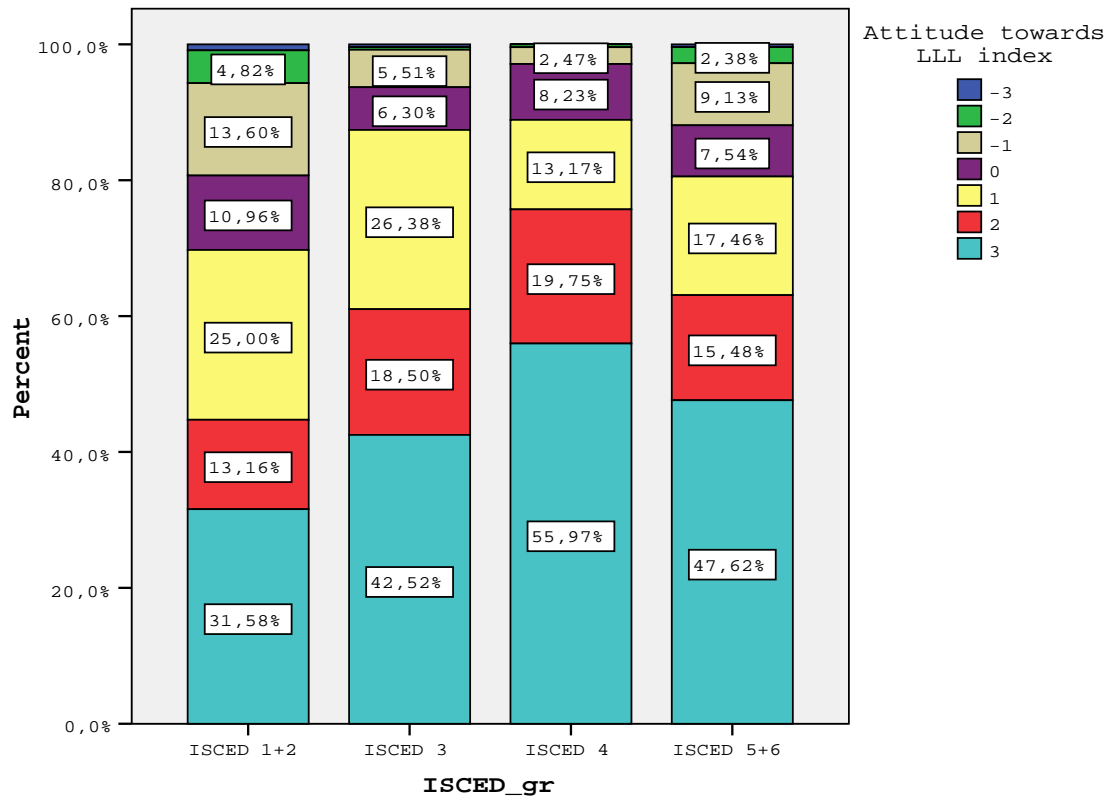


Chart 1: Attitudes towards LLL by ISCED levels

**Enjoyment of learning**, defined as the degree to which respondents positively experience the process of learning is represented by a cumulative index with values ranging from -2 to + 2 (Annex 3, Table 1.1.). The highest frequencies are at the positive value +2 (63.1%) and +1 (15.6%). Along the ISCED levels, for value +2, the highest frequencies are at ISCED 4 (79.0%); the lowest are at ISCED 5 + 6 levels (53.8%). Between them are the frequencies at ISCED 3 (63.6%) and ISCED 1 + 2 (56.0%).

15.3% of respondents fall at the neutral value 0, the highest being the frequency for ISCED levels 1 + 2 respondents (22.2%).

For the negative values of the cumulative index "enjoyment of learning" (-2 and -1), the highest frequencies are for the ISCED 1 + 2 levels, respectively 4.7% и 6.4%. The percentage of answers at value -1 for respondents at ISCED levels 5 + 6 is 5.1%, preceded by respondents at ISCED 1 + 2 levels with a frequency of 6.4%.

"Enjoyment of learning" reaffirms the "LLL attitude" results, sustainably showing that Bulgarian adult learners have positive attitudes to LLL.

The results display significant dependence between "enjoyment of learning" and "education level" of Bulgarian respondents, Chi-Square (12, N = 991) = 73.935;



$p < .05$ . ANOVA analysis also shows significant influence of the "education level" on "LLL attitude",  $F(3, 987) = 16.339$ ;  $p < .001$ .

The next step in the analysis of "LLL attitudes" is: constructing of **Overall LLL attitude index** (Annex 3, Table 1.2.), comprising the previous two indices ("LLL attitudes in general" and "enjoyment of learning"), with values from -9 to +9. In the Bulgarian case it was necessary to group the values from -9 to -4, because frequencies in that range were very low: below 1%. Values from -3 to -1 have minimal frequencies from 1.1% to 1.9%. The neutral value 0 has also a low frequency of 2.6%. Values from +1 to +3 have frequencies: 4.5%; 4.2%; 5.7%. The values +4, +5, +6 have frequencies respectively 8.7%; 9.2%; 7.1%. The values +7, +8 also represent a similar group of frequencies, respectively 13.4% and 14.7%. The most of the frequencies are at value +9, i.e. 24.9%, which again confirms the positive attitude of Bulgarian respondents to LLL.

At value +9 the largest frequency is for ISCED 4 (34.5%). The remaining ISCED have frequencies between: 21.1% (ISCED 5 + 6), 21.9% (ISCED 3) and 22.2% (ISCED 1 + 2).

The results display significant dependence between "LLL attitudes" and "education level" of Bulgarian respondents, Chi-Square (51, N=935) = 100.366;  $p < .05$ . ANOVA analysis also shows significant influence of the "education level" on "LLL attitude",  $F(3, 931) = 11.042$ ;  $p < .001$ .

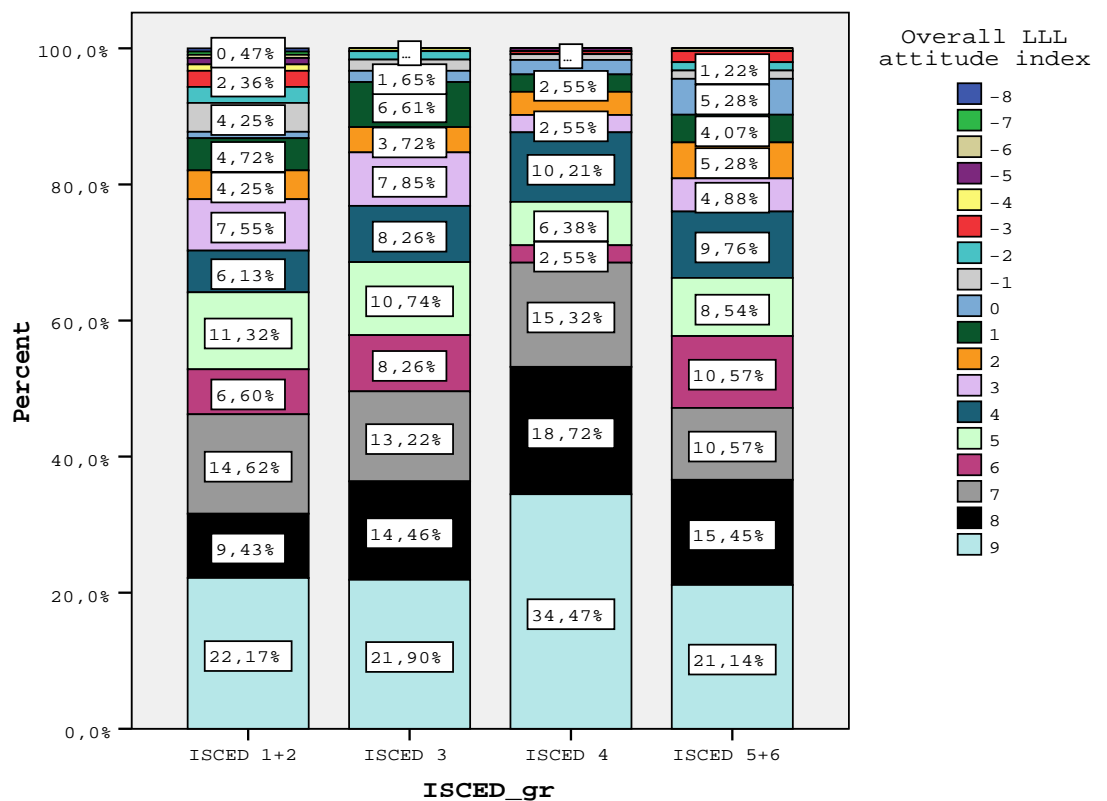


Chart 2: Overall attitude LLL index by ISCED levels

#### **4.1.2. MOTIVES: Why do adults participate in formal learning?**

The main motive for participating in formal learning (Annex 3, Table 2) is defined by over half of the Bulgarian respondents (55.8%) as “mainly personal”. In turn 44.2% of the respondents declare that the “choice” and “enrolling” in the programme is “mainly job related”. If both groups of motives are examined, the following picture emerges:

The motive “mainly job related” is indicated by respondents at the higher education levels: ISCED 4 (64.1%) and ISCED 5 + 6 (62.7%). The lowest are the frequencies of ISCED 1 + 2 (12%).

Correspondingly, the “mainly personal” reason for starting a formal education course is given mostly by ISCED 1 + 2 (88.0%) and ISCED 3 (38.2%).

Results show significant dependence between "LLL motives" and "education level" of Bulgarian respondents, Chi-Square (3, N = 1021) = 185.180;  $p < .05$ .

After recoding items 1-18 into dichotomy variables the following frequencies were revealed for the abovementioned motives for starting a study programme.

- “to learn more on a subject that interests me” (Annex 3, Table 2.1.) is given as “a reason for starting this study program” by more than 2/3 of respondents (79.9%), the frequencies for ISCED levels being: ISCED 1 + 2 (85.7%); ISCED 3 (71.4%); ISCED 4 (86.3%); ISCED 5 + 6 (77.0%).

This means that Bulgarian respondents relate their participation in life long learning with certain cognitive interests and commitment; Chi-Square (3, N = 1017) = 24.767;  $p < .05$ .

- “to earn more” (Annex 3, Table 2.2.) is given as “a reason for starting this study program” by the greater part of respondents (60.4%), the frequencies for ISCED levels being: ISCED 1 + 2 (55.7%); ISCED 3 (54.8%); ISCED 4 (68.2%); ISCED 5+6 (63.0%).

The results show significant dependence between raising respondents' education level and the study motive "to earn more"; Chi-Square (3, N = 1009) = 12.638;  $p < .05$ .

- “because my employer required me to enroll in the programme”. The education level of respondents does not influence this motive in selecting a study programme.

- “to participate in group activities” (Annex 3, Table 2.3.). Most of the frequencies are for the negative answer “this was not a reason for starting this study program” 53.5%; by ISCED levels the frequencies are as follows: ISCED

1 + 2 (22.6%); ISCED 3 (65.0%); ISCED 4 (72.5%); ISCED 5 + 6 (52.9%).

There exists significant dependence between respondents' education level and the study motive "to participate in group activities", Chi-Square (3, N = 1007) = 142.693;  $p < .05$ .

- "to contribute more to my community" (Annex 3, Table 2.4.). 60.0% of the respondents indicate that "this is the reason for starting a study programme". Frequencies for ISCED levels are quite similar: the highest are for ISCED 1 + 2 (66.1%), followed by ISCED 3 (62.1%), ISCED 5 + 6 (59.5%), ISCED 4 (52.3%).

The results display a significant dependence between respondents' education level and the motive "to contribute more to my community", Chi-Square (3, N=1000) = 10.265,  $p < .05$ .

- "gain awareness of myself and others" (Annex 3, Table 2.5.). For the overall sample the respondents who gave answer "this was a reason for starting this study program" is 60.3%; by ISCED levels: ISCED 1 + 2 (78.5%); ISCED 3 (59.2%); ISCED 4 52.7%); ISCED 5 + 6 (51.4%).

The results show that there is significant dependence between respondents' education level and the study motive ("gain awareness of myself and others"), Chi-Square (3, N=1004) = 48.198,  $p < .05$ .

- "to get a break from the routine of home and work" (Annex 3, Table 2.6.). Here most of the respondents give a negative answer "this was not a reason for starting this study program" (56.8%); the frequencies for ISCED levels being: ISCED 1 + 2 (41.8%); ISCED 3 has a frequency of 65.8%; ISCED 4 has a frequency of 58.9%; ISCED 5 + 6 has a frequency of 59.5%.

The results display significant dependence between respondents' education level and the study motive ("to get a break from the routine of home and work"), Chi-Square (3, N = 1005) = 31.683,  $p < .05$ .

- "to do my job better" (Annex 3, Table 2.7.). Most of the respondents give the positive answer: 65.8%; the frequencies by ISCED levels being: ISCED 1 + 2 (60.4%); ISCED 3 (54.0%); ISCED 4 (77.9%); ISCED 5 + 6 (71.5%).

The results display significant dependence between respondents' education level and the study motive ("to do my job better"), Chi-Square (3, N=1001) = 38.664,  $p < .05$ .

- "because someone advised me to do it" (Annex 3, Table 2.8.). There are greater accumulations for the negative answer "this was not a reason for starting this study program" 59.4%; the frequencies for ISCED levels being: ISCED 1 + 2 (27.6%); ISCED 3 (66.3%); ISCED 4 (71.1%); ISCED 5 + 6 (71.1%).

The results show that the higher the respondents' education level the less

pronounced the study motive “because someone advised me to do it”, Chi-Square (3, N = 995) = 133.373,  $p < .05$ .

- “to start up my own business” (Annex 3, Table 2.9.). Most of the respondents answer negatively to this question - 65.4%; the frequencies by ISCED levels being: ISCED 1 + 2 (77.8%); ISCED 3 (68.0%); ISCED 4 (53.8%); ISCED 5 + 6 (62.3%).

The results display significant dependence between respondents' education level and the study motive (“to start up my own business”), Chi-Square (3, N = 1002) = 32.729;  $p < .05$ .

- “because I was bored” (Annex 3, Table 2.10.). Most of the respondents give negative answer “this was not a reason for starting this study program” 80.4%; the frequencies by ISCED levels being: ISCED 1 + 2 (62.9%); ISCED 3 (85.7%); ISCED 4 (88.5%); ISCED 5 + 6 (83.1%).

The results display significant dependence between respondents' education level and the study motive (“because I was bored”), Chi-Square (3, N = 985) = 60.411;  $p < .05$ .

- “because I was obliged to do it, e.g. to claim benefits, to avoid redundancy” (Annex 3, Table 2.11.). Most of the respondents give positive answer “this was a reason for starting this study program” 54.3%; the frequencies by ISCED being: ISCED 1 + 2 (45.1%); ISCED 3 (52.7%); ISCED 4 has a frequency of 62.2%; ISCED 5 + 6 has a frequency of 57.0%.

The results display significant dependence between respondents' education level and the study motive (“because I was obliged to do it, e.g. to claim benefits, to avoid redundancy”), Chi-Square (3, N = 1004) = 15.565;  $p < .05$ .

- “to get a job” (Annex 3, Table 2.12.) is given by 66.6% of individuals studied as a reason for starting a study programme. Respondents choosing the positive answer have similar frequencies for ISCED levels being: ISCED 4 (73.3%), ISCED 1 + 2 (66.7%), ISCED 5 + 6 (65.2%), ISCED 3 (61.4%). This indicates that pragmatism is a stimulus for study for Bulgarian adult learners and falls among the important motives in selecting a study programme, Chi-Square (3, N = 998) = 8.201;  $p < .05$ .

- “to learn knowledge/skills useful in my daily life” (Annex 3, Table 2.13.). There are greater accumulations of respondents for the positive answer “this was a reason for starting this study program” 77.6%; the frequencies for ISCED levels being: ISCED 1 + 2 (88.1%); ISCED 3 (69.1%); ISCED 4 (78.9%); ISCED 5 + 6 (75.1%).

The results display significant dependence between respondents' education level and motivation (“to learn knowledge/skills useful in my daily life”), Chi-Square

(3, N = 1008) = 27.377;  $p < .05$ .

- “to contribute more as a citizen”, Education level of the individuals does not affect this motive for selecting a study programme.

- “to meet new people” (Annex 3, Table 2.14.). Most of the respondents give positive answer “this was a reason for starting this study program” 64.2%; the frequencies by ISCED levels being: ISCED 1 + 2 (78.5%); ISCED 3 has a frequency of 53.1%; ISCED 4 has a frequency of 62.1%; ISCED 5 + 6 has a frequency of 64.1%.

The results display a significant dependence between respondents' education level and the study motive (“to meet new people”), Chi-Square (3, N = 996) = 35.457;  $p < .05$ .

- “to be less likely to lose my current job”. The education level does not affect this motive for selection of a study programme.

- “to obtain certificate” (Annex 3, Table 2.15.). This motive is given by the largest part of respondents: 4/5 of the research sample (83.5%); the frequencies by ISCED levels being: ISCED 1 + 2 (83.8%); ISCED 3 (75.2%); ISCED 4 (86.1%); ISCED 5 + 6 has a frequency of 89.1%.

The results show that there exists significant dependence between respondents education level and the study motive (“to obtain certificate”), Chi-Square (3, N = 998) = 20.087;  $p < .05$ .

**In conclusion** we can say that there are several main motives for participating in lifelong learning:

- firstly, it is noteworthy that the most respondents are motivated by the desire to obtain a diploma (certificate), which demonstrates the significance of formal education in the Bulgarian environment;

- Bulgarian respondents have not chosen to participate in LLL because of "boredom" (80.4%) or "to get a break from the routine of home and work" (56.8%);

- a certain humanist orientation is revealed related to cognitive interest (“to learn more on a subject that interests me”) (79.9%);

- there is a strive for improvement in professional terms: "to do my job better" (65.8%) as well as "to earn more" (60.4%) are perceived as important stimuli for respondents' participation in LLL;

- interpersonal perspective and openness to new contacts and people: "to meet new people" (64.2%), "to earn respect" (60.3%), "to contribute more as a citizen" (60.0%) drives a great part of the respondents to LLL institutions;

- it is important to note also that reverse dependence is revealed between raising of the education level and the motive “because someone advised me to

do it ” (59.4% of the respondents have given the negative answer); which gives us ground to presume that with the increase of education level people become more independent in their positions and decisions. Besides this case no correlation is found between the raising of respondents' education level and their motivation in choosing a study programme in the formal education system;

- in the context of the frequencies indicated one more tendency should be pointed out, which is related to the higher share of individuals of ISCED 1 + 2, who have leading frequencies for most of the study motives.

The next step in presenting the results is the cumulative index of "**controlled motives**" (Annex 3, Table 2.16.), which shows that the highest frequencies are concentrated at values 5.00, 6.00, 7.00, respectively 17.6%, 18.5%, 12.8%. By ISCED groups, it can be observed that at value 5.00 the highest frequencies have: ISCED 1 + 2 (20.3%) and ISCED 4 (18.6%). At value 6.00 the highest frequencies belong to the same two groups: ISCED 1 + 2 (20.3%) and ISCED 4 (23.8%). At value 7.00 the highest frequencies belong to ISCED 4 (14.7%), ISCED 5 + 6 (13.3%) and ISCED 1 + 2 (12.1%).

The results show strong dependency between respondents' education level and the cumulative index of controlled study motives, Chi-Square (24, N = 932) = 63.493;  $p < .05$ .

The controlled motives index reveals that the differences in frequencies for each of the index values are small, which does not allow to outline a tendency.

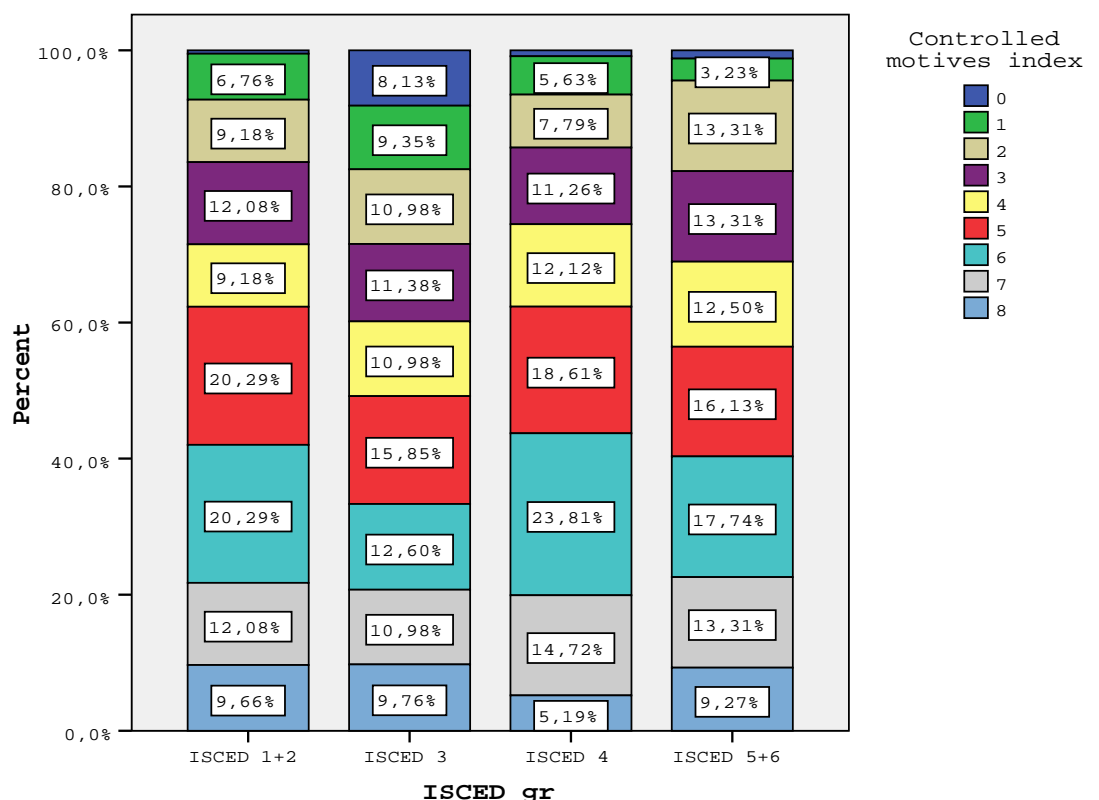


Chart 3: Controlled motives index by ISCED levels

The results of the cumulative index "**autonomous motives**" (Annex 3, Table 2.17.) show that the highest frequencies belong to the values 6.00, 7.00 and 8.00, respectively 13.2%, 17.3%, 13.0%. Here we shall examine them by ISCED groups: At value 6.00 the highest frequencies belong to: ISCED 5 + 6 (16.3%) and ISCED 3 (13.1%). At value 7.00 the highest frequencies belong to: ISCED 1+2: (23.6%) and ISCED 4 (19.0%). At value 8.00 the highest frequencies belong to ISCED 1 + 2 (20.2%) and ISCED 3 (13.5%).

The results display significant dependency between respondents' education level and the cumulative index of the autonomous study motives, Chi-Square (30, N = 932) = 137.650;  $p < .05$ .

The index of autonomous motives reveals insignificant differences between the frequencies at the various values of the index, which does not allow us to outline a tendency.

The next step in the analysis of the study motives is the construction of indices of capitals: „social control”, “human capital”, “social capital”, “personal fulfilment”.

The cross tabulations of the motives for starting a study programme (represented by indexes of capitals) and ISCED levels the following form.

- The cumulative index of “social control” (Annex 3, Table 2.18.) shows that the highest frequencies are found at the values 1.00 and 2.00, respectively 35.9% and 29.3%. At value 1.00, the highest frequencies belong to ISCED 1 + 2 (41.2%) and ISCED 4 (36.6%). At value 2.00, the highest frequencies belong to the same two levels: ISCED 1 + 2 (36.3%) and ISCED 4: (32.8%).

The results reveal significant correlation between respondents education level and the cumulative index of "social control", Chi-Square (9, N = 973) = 49.005,  $p < .05$ .

The "social control" index displays insignificant differences in the frequencies at the various values of the index, which does not allow us to outline a tendency.

- The cumulative index of “Human capital” (Annex 3, Table 2.19.) shows that the highest frequencies are obtained for values 4.00 и 5.00, respectively 21.6% and 22.2%. At value 4.00, the highest frequencies are for ISCED 1 + 2: (24.3%), ISCED 5+6: (24.8%) and ISCED 4: (22.6%). At value 5.00, he highest frequency is for ISCED 4: (28.5%), while all other ISCED gr. display similar frequencies: ISCED 1 + 2: (20.6%), ISCED 3: (20.0%), ISCED 5 + 6: (20.0%).

The results display significant dependency between respondents' education level

and the cumulative index "social capital", Chi-Square (18, N = 949) = 59.936;  $p < .05$ .

The "human capital" index displays insignificant differences between the frequencies at various values of the index, which does not allow us to outline a tendency.

- The cumulative index "Social capital" (Annex 3, Table 2.20.) shows that the highest frequencies are obtained for values 2.00, 3.00 and 4.00, respectively 22.1% and 22.9%, 27.1%. At value 2.00, the highest frequency is for ISCED 4 (24.5%), followed by ISCED 1 + 2 and ISCED 5 + 6, which have similar frequencies (22.4%). At value 3.00, highest frequencies are obtained for ISCED 5 + 6 and ISCED 1 + 2, respectively: (24.3%) and (24.2%), followed by ISCED 4: 22.8%. Thus the frequencies at this value are very similar. At value 4.00 the frequency for ISCED 1 + 2 is: (41.7%), followed by similar frequencies for ISCED 5 + 6: (26.3%) and ISCED 3: (24.0%).

The results reveal significant dependency between respondents' education level and the cumulative index "social capital", Chi-Square (12, N = 969) = 65.988,  $p < .05$ .

The "social capital" index displays insignificant differences between the frequencies at the various values of the index, which does not allow us to outline a tendency.

- Cumulative index of "Personal fulfilment" (Annex 3, Table 2.21.) shows that the greatest accumulations are found at values 2.00, 3.00 and 4.00, respectively 21.7% and 28.3%, 25.5%. At value 2.00, the highest frequencies belong to ISCED 5 + 6 (29.1%) ISCED 4 (27.5%), the lowest frequency belongs to ISCED 1 + 2: (9.3%). At value 3.00, the highest frequency has ISCED 1 + 2 (32.9%), followed closely by frequencies for: ISCED 3 (29.1%), ISCED 4 (27.1%) and ISCED 5 + 6 (24.8%). At value 4.00 the highest frequency belongs to ISCED 1 + 2 (38.9%), followed by ISCED 4 (24.6%) and ISCED 5 + 6 (21.7%).

The results reveal insignificant dependency between respondents' education level and cumulative index "Personal fulfilment", Chi-Square (15, N = 961) = 126.730;  $p < .05$ .

**In conclusion**, it can be said that the indexes for capitals display insignificant differences between the frequencies both for the various index values and by education levels within regarding a specific value.



## Factor Analysis

It was important to reveal the factor structure of the motives included in the study. To reveal it we carried out factor analysis with VARIMAX rotation. We obtained 4 factors which explain 47% of the variance. Table 1 shows the factor loadings of the motive on each of the factors. (See Annex 3, Table 2.22.)

On the first factor the variables which loaded high were: to contribute more to my community, to contribute more as a citizen, to gain awareness of myself and others, to learn knowledge/skills useful in my daily life, to learn more on a subject that interests me. We labelled this factor the Social capital factor.

The variables which loaded high on the second factor were: to earn more, to get a job, to do my job better, to start up my own business , because my employer required me to enrol in the programme, to be less likely to lose my current job. Since the connotation of these items pertained to individualistic orientation it was labels the “Human capital” factor.

The third factor comprised the items: because I was bored, to get a break from the routine of home and work. These motives show a desire to escape the humdrum of daily life ad therefore factor was named the “Personal fulfilment” factor.

The forth factor comprises two items: because someone advised me to do it and, to participate in group activities. This constellation is hard to be interpreted and we discarded this factor.

To summarize: three interpretable factors were obtained. Most homogeneous was the ‘human capital factor’, the factor which explains the greatest part of the variance was the ‘Social capital factor.

### **4.1.3. CONFIDENCE: How confident adults feel about finishing their studies?**

**Confidence in successful completion of formal education** is defined *as* the degree to which respondents experience as problems obstacles such as transportation, child care, financial difficulties, inconvenient schedule, family tensions.

Almost all respondents (Annex 3, Table 3) 87.3% express their confidence that they will complete their education. The highest frequencies are found for

respondents at ISCED 4 (93.9%), followed by ISCED 3 (89.7%), ISCED 5 + 6 (87.9%) and ISCED 1 + 2 (77.6%).

The percentage of respondents who do not have confidence that they will complete their education is 4.1%, while the frequency of respondents who answer with “no opinion” is 8.6%.

The results reveal significant dependence between respondents' education level and their confidence in completing their education, Chi-Square (6, N = 1011) = 36.950;  $p < .05$ .

The cumulative index of problems (which adult learners indicate they have) delineates four groups (Annex 3, Table 3.1.):

- the first one is of those indicating “No problems”;
- the second one is of those indicating “1-3 problems”;
- the third one is of those indicating “4-6 problems”;
- the fourth one is of those indicating “more than 7 problems”.

The highest are the frequencies within the group of respondents indicating “1-3 problems” (53.1%), followed by the frequencies in the groups indicating “No problems” (30.3%) and the group of individuals indicating “4-6 problems” (15.7%). The frequency in the group indicating “more than 7 problems” is .8%.

We shall examine the first two groups, which comprise over 2/3 of the individuals studied. The group of individuals with “1-3 problems”, to which more than half of the respondents fall, the highest frequencies are for ISCED 4 (60.2%), ISCED 5 + 6 (53.1%) and ISCED 3 (48.4%).

“No problems” in their study indicate respondent at ISCED 1 + 2 (54.9%), followed by the significantly lower frequencies of the remaining three ISCED groups: ISCED 3 (34.4%), ISCED 5 + 6 (30.3%), ISCED 4 (24.9%).

The results reveal significant dependence between respondents education level and their confidence in completing their education, Chi-Square (9, N = 986) = 64.570;  $p < .05$ .

Thus, based on the dispersions obtained it can be summarized that Bulgarian respondents fall massively into the groups having "no" or "few" problems in their study. This is a good indicator for the existence of a beneficial environment, both in institutional terms and as resources in individual terms, proving undoubtedly the respondents' confidence in completing their education and their expectations for good prospects in the future.

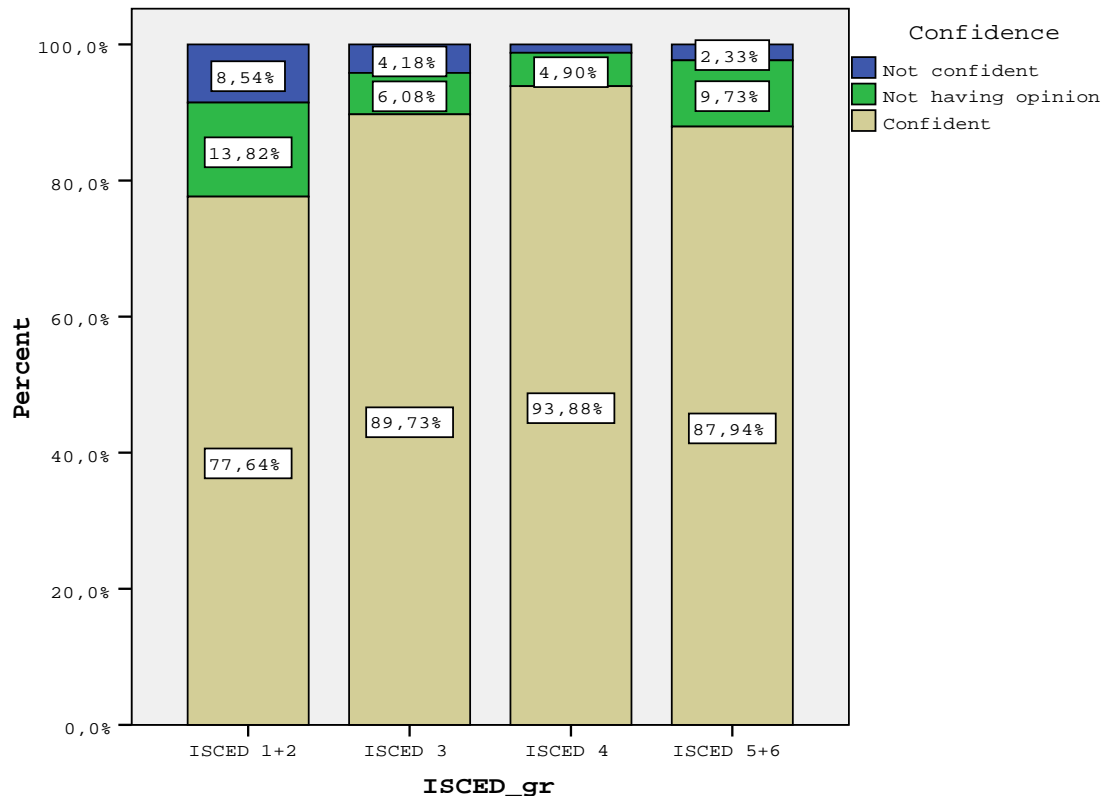


Chart 4: Confidence in completing education by ISCED levels

#### 4.1.4. SATISFACTION: How satisfied adults are with the learning?

This part examines:

- **Satisfaction with the process of LLL** – satisfaction with the context of formal learning e.g. the study programme, the learning climate and the practical organization of the educational institution.
- **Satisfaction with the outcomes** – e.g. the degree to which respondents estimate positively the perspectives and career opportunities LLL opens for them.

Satisfaction is the logical continuation of "confidence" in completing education. Satisfaction has several dimensions:

1. Satisfaction with “the general progress of the entire study programme” (Annex 3, Table 4.1.): “Satisfied” has a frequency of 73.4%; “Dissatisfied” has a frequency of 6.8%; “Cannot decide” has a frequency of 19.9%.

Within the group of “satisfied” with the study programme (which comprises over 2/3 of the representative sample) the highest frequency have respondents at ISCED 1 + 2 (81.2%), followed by ISCED 3 (77.4%) and ISCED 4 (76.3%); last are the respondents at ISCED 5 + 6 (58.8%), which is actually over half of

the learners at that level – bachelors and masters; i.e. reverse tendency is observed: with the increase of education level learners' satisfaction decreases.

Within the group of respondents who cannot decide about the degree of their satisfaction (about 1/5 of the individuals) the greatest share belongs to adult learners of ISCED 5 + 6 (29.6%), followed by the almost equal shares of respondents at ISCED 3 (18.8%) and ISCED 4 (18.9%); respondents of ISCED 1 + 2 have a relative share of 11.8%.

The results reveal significant dependency between respondents' education level and their satisfaction with the study programme, Chi-Square (6, N = 1017) = 44.923;  $p < .05$ .

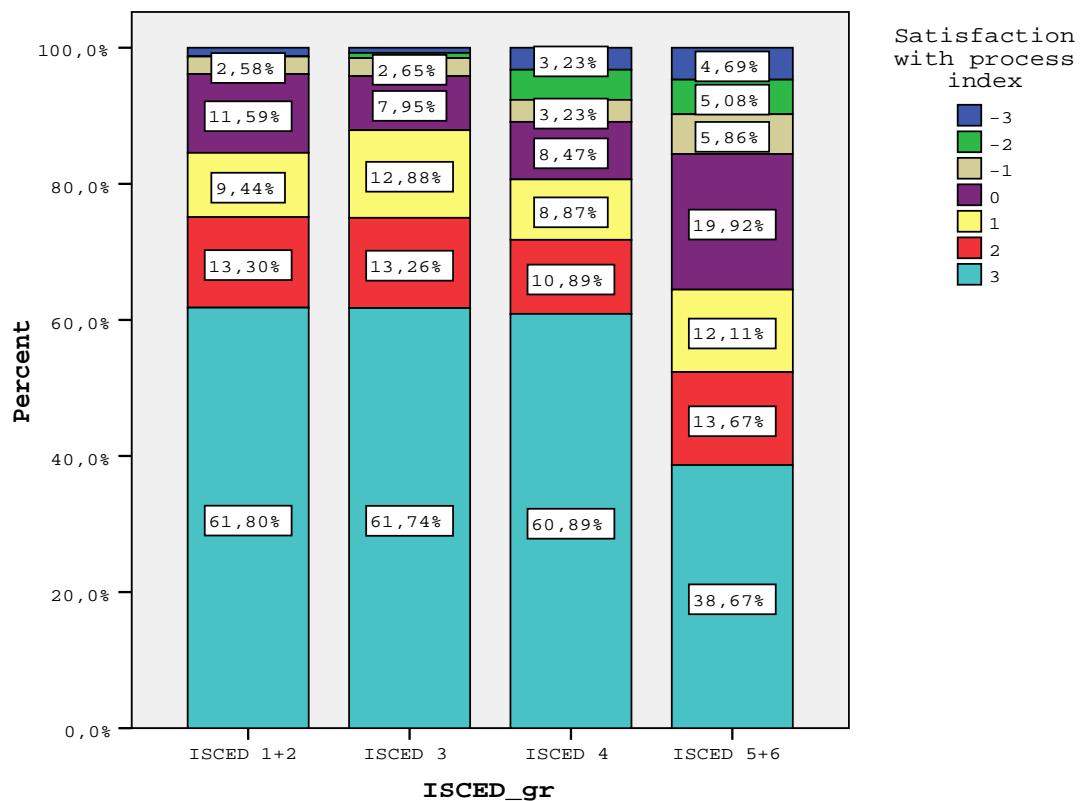


Chart 5: Satisfaction with process index by ISCED levels

2. Satisfaction with “the general learning climate in the educational institution”; here again the highest frequencies are observed for the answers: “Satisfied” 67.6%, considerably less are the respondents who “Cannot decide” – they are 25.3%; and “Dissatisfied” with a frequency of 7.1% (Annex 3, Table 4.2.).

Within the group of “Satisfied” a subgroup with similar dispersions is formed by respondents at ISCED 3 (76.3%), ISCED 1 + 2 (71.9%) and ISCED 4 (71.4%). The other subgroup comprises also respondents at ISCED 5 + 6 (51.0%), whose

satisfaction is significantly lower. Thus a tendency emerges (in the above option as well): high level of satisfaction expressed in the opinions of over 2/3 of the representative sample, of individuals with primary and secondary education; i.e. the lower education levels are more satisfied with the education, study programmes, organization of study.

Among those who cannot decide, the greatest share belongs to respondents of ISCED 5 + 6 (36.6%).

The results reveal significant dependency between respondents' education level and their satisfaction with “the general learning climate in the educational institution”, Chi-Square (6, N = 1013) = 54.871;  $p < .05$ .

3. Satisfaction with “the general practical organisation of the educational institution” (Annex 3, Table 4.3.): “Satisfied” has a frequency of 66.1%; “Dissatisfied” has a frequency of 7.7%; “Cannot decide” represent 26.2% of the sample.

The dispersions formed are impressive in two ways:

- the tendency of respondents' high satisfaction is maintained on the whole, and again the most satisfied are the respondents at ISCED 3 (75.0%), ISCED 1 + 2 (71.7%) and ISCED 4 (69.0%);

- an increase of the share of respondents who "Cannot decide" is observed on account of the "Satisfied".

Within the group of respondents who “Cannot decide” again the highest share belongs to the individuals of ISCED 5 + 6 (41.4%).

The results reveal significant dependency between respondents education level and their confidence in completing their education, Chi-Square (6, N = 1012) = 58.344;  $p < .05$ .

4. Satisfaction with “what you have so far learned thanks to the course”: “Satisfied” has a frequency of 76.8%; “Dissatisfied” has a frequency of 3.6%; “Cannot decide” have a frequency of 19.6% (Annex 3, Table 4.4.). Along education levels again the highest frequencies at the levels ISCED 4 (82.1%), ISCED 3 (81.0%), ISCED 1 + 2 (74.2%), ISCED 5 + 6 (69.9%). The share of respondents at ISCED 5 + 6 increases as compared with the remaining dimensions of satisfaction.

The results reveal significant dependency between respondents' education level and their satisfaction with “the general practical organisation of the educational institution”, Chi-Square (6, N = 1005) = 18.149;  $p < .05$ .

5. Satisfaction with “what you can go on to do after completion of this course” (Annex 3, Table 4.5.): “Satisfied” has a frequency of 69.6%; “Dissatisfied” are 5.2% of the representative sample; “Cannot decide” has a frequency of 25.2%.

Within the group of the "Satisfied", which as a rule is again with high frequency, it can be observed that the share of respondents at ISCED 5 + 6 (66.1%) increases as compared with dimensions 1 to 3 (see above), on account of respondents at ISCED 1 + 2 (57.1%). Furthermore, frequency for respondents at ISCED 3 (75.4%) and ISCED 4 (79.0%) remain the same, showing as in the dispersions above high satisfaction with what they can go on to do after completion of their education.

The results reveal significant dependency between respondents' education level and their satisfaction with "what you can go on to do after completion of this course", Chi-Square (6, N = 1007) = 33.811;  $p < .05$ .

From the results obtained it can be **concluded** that Bulgarian respondents show a high degree of satisfaction as a whole from their education, the organization of the education process, the education institution and their expectations for the future. There is a clearly revealed tendency that individuals of lower (up to ISCED 5 + 6) education levels show higher satisfaction. As a whole respondents of ISCED 5 + 6 also display high satisfaction, expressed in maintaining a sustainable share (between 50% - 69%), as well as the presence of individuals who "Cannot decide".

### **Cumulative indices of satisfaction**

Two cumulative indices of satisfaction (with the process and the results) have been calculated.

1. A cumulative index of the "Satisfaction with the process" has been constructed (Annex 3, Table 4.6.).

The highest frequencies are found at values 2.00 and 3.00, respectively: 12.8% and 55.6%. At value 3.00 the highest accumulations are for ISCED 1 + 2 (61.8%), ISCED 3 (61.7%), ISCED 4 (60.9%). The lowest frequency is found for ISCED 5 + 6 (38.7%).

At value 2.00 frequencies are close for ISCED levels: for ISCED 5 + 6 (13.7%), for ISCED 1 + 2 (13.3%), ISCED 3 (13.3%), for ISCED 4 (10.9%).

At the neutral value .00, the frequency is 12.0%; for ISCED levels the frequencies at this value are the highest for ISCED 5 + 6 (19.9%), followed by ISCED 1 + 2 (11.6%).

At the negative values the frequencies are below 3.6%. The results reveal significant dependency between respondents' education level and their satisfaction with the study process, Chi-Square (18, N = 1001) = 74.950; p < .05.

2. A cumulative index of satisfaction with results has been constructed (Annex 3, Table 4.7.). The highest frequencies are obtained for values 2.00 and 1.00, respectively: 63.2% and 18.0%. At value 2.00 the highest frequencies are for ISCED 4 (73.2%), ISCED 3 (67.6%); high frequencies are obtained for the other groups as well: ISCED 5 + 6 (57.4%), ISCED 1 + 2 (54.1%).

At value 1.00 frequencies are similar for ISCED levels. The highest frequencies are for ISCED 1+2 (21.5%) and ISCED 5+6 (19.9%); followed by ISCED 3 (17.6%) and ISCED 4 (13.0%).

At the neutral value .00, the frequency is 14.1%; By ISCED levels, the highest frequencies are for ISCED 5 + 6 (17.2%) and ISCED 1 + 2 (17.2%); the lowest are for ISCED 4 (9.8%).

For the negative values frequencies are below 3.1%.

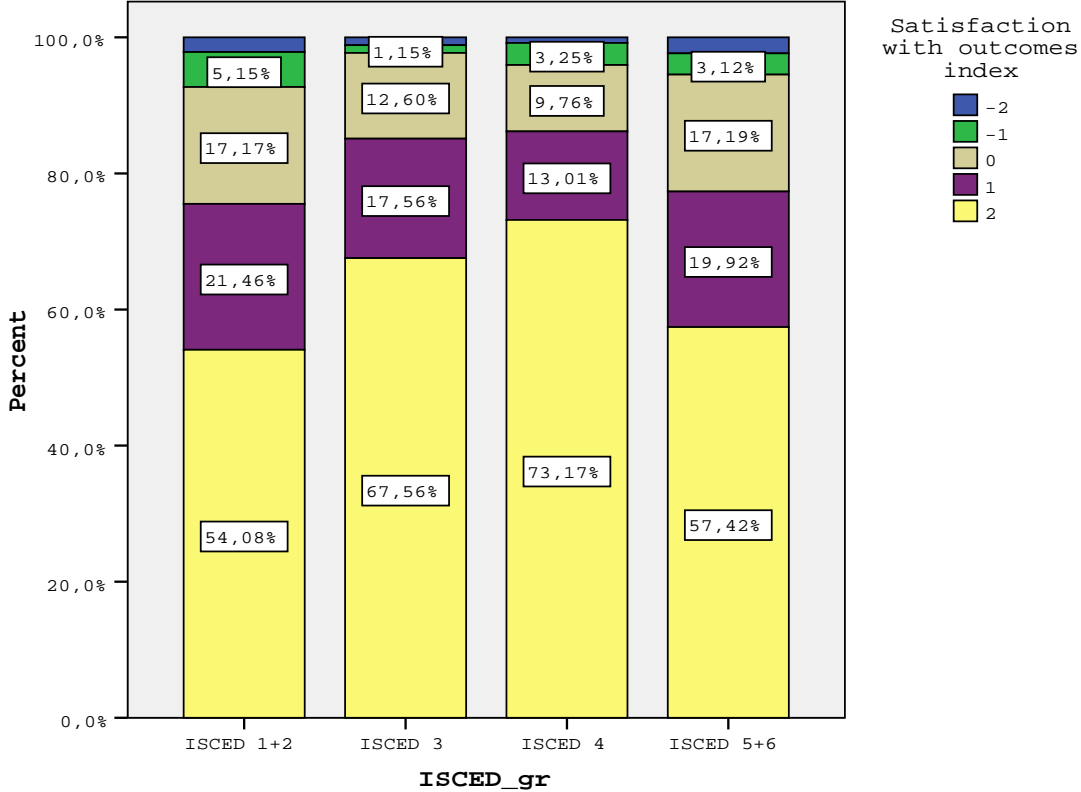


Chart 6: Satisfaction with outcomes index by ISCED levels

The results reveal significant dependency between respondents' education level and their satisfaction with results, Chi-Square (12, N = 997) = 30.567,  $p < .05$ .

The cumulative index of satisfaction confirm the cross tabulations between the various dimensions of satisfaction and respondents' education level. In other words Bulgarian respondents display high degree of satisfaction with respect to the various aspects of the education institutions and the education process.

## **4.2. Comparison of formal learning institutions by ISCED levels**

### **4.2.1. Learning institutions**

The purpose of this part is to show what measures the institutions use to stimulate adult learners' participation in formal education; and how these measures differ (do not differ) for the various ISCED levels.

**Cumulative LLL policy index** reflects the institutional commitment to the implementation of lifelong learning, expressed in the incorporation of LLL in the school mission as well as the availability of specific measures for improving teachers' qualification and ensuring external control on the quality of education.

Cumulative LLL policy index (Annex 3, Table 5.1., Diagram 5.1.) of the Bulgarian education institutions shows that the highest frequencies (40.6%) are found at value 5.00, next come (with a significant difference in accumulations) those at value 3.00 (28.1%) and value (24.0%). At values 1.00 and 2.00 frequencies are low – below 4.5%.

At value 5.00, examination by ISCED levels finds the highest frequencies are at ISCED 1 + 2 (65.6%), followed by ISCED 3 (52.4%) and ISCED 5 + 6 (29.5%) and finally, with a big difference comes ISCED 4(7.5%).

At value 3.00 the highest frequencies are for ISCED 5 + 6 (59.9%), followed by ISCED 4 (26.4%) and ISCED 1 + 2 (19.4%).

The results reveal significant dependency between the institutions' education level and their specific policy towards adult learners, Chi-Square (12, N = 922) = 490.208,  $p < .05$ .



It can be **concluded** from the results that education institutions in Bulgaria do not have a distinctive policy towards LLL.

1. Regarding “mission” and “measures”. Targeted to vulnerable groups. At policy level (acts, strategies, programmes) there is in place a system of decisions and measures for vulnerable groups, for instance, the Act for Integration of Disabled People (2004), Employment Act, Strategy for Integration of Children from Ethnic Minorities (2004) especially emphasise the need for providing appropriate teaching materials, additional education, facilities for work with vulnerable groups. In the specific institutions of the formal education system, however, the real actions and measures taken towards vulnerable groups do not demonstrate any efficiency, considering the lack of funds, initiative, and charitable thinking of the management bodies of education institutions. Below are several examples:

- regarding ethnic minorities over 16 years of age: their education forms part of the programmes for overcoming illiteracy – full or part time vocational courses; literacy courses for uneducated adult Roma people. On the whole, Roma education (over the compulsory school age of 16) primarily takes place within different projects, without the availability of really operating “second chance schools” round the country;

- regarding disabled people: there really exist schools for disabled children but conditions in them are not good in terms of facilities, infrastructure and care providing, and moreover they provide education up to 16 years of age (the compulsory school age in Bulgaria) so disabled people over that age, who wish to continue their education cannot enrol in them. Besides, general education schools, with very few exceptions, do not provide facilities for physically disabled people;

- regarding imprisoned individuals: there are 12 prisons in Bulgaria, before (socialist regime) there used to be schools in all prisons; after 1990 half of those 12 schools were closed, so that presently there are 6 schools with about 130 teacher in all; conditions are poor, classrooms and equipment are insufficient; on the whole the study process is of low quality.

2. Regarding external quality control. The National Programme for the Development of School and Pre-school Education and Training (2006 – 2015) points out the lack of a system for external assessment and the inadequate effectiveness of the system for internal assessment of education quality. In the academic year 2007/2008 for the first time an external system for assessment of the quality of education in the 4th grade was applied and matriculation exams

were introduced in the 12th grade. The external assessment system is still at the start of its implementation and continuous improvement of the standards of assessment and the mechanisms for its implementation is forthcoming.

**3.** Regarding the improvement of teachers' qualifications. This subject is treated in various policy documents and strategies: National Strategy for Continuous Vocational Education for 2005-2010, adopted in 2004; and its Action Plan (2005); as well as National Strategy for the Implementation of Information and Communication Technologies in Bulgarian Schools, adopted in 2005. The implementation of those documents in practice shows that teachers' qualification depends mainly on individual commitment and people's activity, without the mediation of education institutions in the form of financial support for improving teachers' qualification and obtaining the respective qualification level.

This is the calculation of the **Outreach strategy for disadvantaged groups index** – the presence of an institutional strategy and policies for attracting representatives of underprivileged groups through active search, organization of preparatory programmes, providing special discounts etc.

The results of the Cumulative outreach strategy index show that (Annex 3, Table 5.2., Diagram 5.2.) the highest frequencies are found at values 0.00 (33.7%) and 1.00 (25.3%), followed by the dispersions at value 4.00 (21.5%).

At value 4.00 the highest frequencies are for ISCED 5 + 6 (54.8%), all other ISCED levels. Have frequencies .0%. Institutions of ISCED 1 + 2 have maximal frequencies (100%) at value 0.00.

Institutions of ISCED 3 have highest frequency (76.5%) at value 1.00.

Institutions of ISCED 4 have the highest frequencies (65.2%) at value 0.00 and a frequency of 25.2% at value 2.00.

The results display significant dependency between the education level of institutions and their strategy to disadvantaged groups, Chi-Square (12, N = 475) = 556.313,  $p < .05$ .

The results reveal that Bulgarian education institutions as a whole are not active in attracting disadvantaged groups; and even if similar policy and measures are implemented, they are almost always related with institutions of ISCED 5 + 6 levels.

**Cumulative simplified access index** reflects the development of flexible and open institutional access policies through elimination of the restricting conditions for enrolling, accreditation of skills acquired through experience in production, transfer of credits, organization of preparatory programmes.

Cumulative simplified access index shows (Annex 3, Table 5.3., Diagram 5.3.) that the highest frequencies are at value 2.00 (46.9%), followed by frequencies (25%) at value 3.00 and frequencies 23.6% at value 1.00. Value 5.00 has a frequency of 1.9%. Institutions of ISCED 1 + 2 have a frequency of 20.1% at value 1.00 and a frequency of 79.9% at value 2.00.

At values 1.00 and 3.00 are found the accumulations of institutions of ISCED 3, respectively: 34.1% and 65.9%.

Institutions of ISCED 4 are presented at all values, the highest being the frequencies at value 3.00 (37.6%) and value 1.00 (22.4%).

Institutions of ISCED 5 + 6 have frequencies at value 1.00 (23.4%), value 2.00 (17.0%) and value 3.00 (59.6%). At value 5.00 frequencies are only for institutions of ISCED 4 (11.8%), and those of ISCED 4 also have frequencies for value 0.00 (16.5%).

The results reveal significant dependency between the education level of institutions and their strategy for simplified access, Chi-Square (12, N = 537) = 398.152,  $p < .05$ .

The results illustrate that Bulgarian education institutions do not feature openness and flexibility of access; there is still absence of such paths as «accreditation of experiential and work experience», APL, APEL. Access to education institutions is determined to a great extent by more traditional forms such as examinations, tuition fees or diploma. All this leads to the conclusion that with regard to LLL Bulgarian education institutions will have to go a long way towards the implementation of new forms (which they not only fail to apply, but some are even not familiar with).

**Cumulative institutional support index** refers to the establishment of practices and policies for support (financial or in terms of services) to adult learners and especially to the underprivileged groups.

Cumulative institutional support index (Annex 3, Table 5.4., Diagram 5.4.) shows that the highest frequencies (25%) are at value 5.00, followed by the frequencies at value 10.0 (14.7%) and at value 8.00 (13.7%). Value 0.00 has a

frequency of 1.00%, and value 16.00 has a frequency of 4.2%.

Considering the results by ISCED levels:

- ISCED 1 + 2 have the highest frequencies are at value 8.00 (34.3%), value 5.00 (28.0%) and value 2.00 (26.6%).

- ISCED 3 has the highest frequencies at value 5.00 (38.5%), value 3.00 (20.0%) and value 8.00 (17.5%).

- ISCED 4 are best represented at value 5.00 (35.7%), value 6.00 (18.5%) and value 7.00 (16.6%). Institutions of ISCED 4 are represented (2.5%) at value 0.00, as well as value 11.00 (10.2%).

- ISCED 5 + 6 the frequencies start at value 7.00, where the frequency is 20.7%. The highest frequencies (52.8%) are at value 10.00; they have frequencies of 15.00% at value 16.00.

The results reveal significant dependency between the education level of the institutions and their support for adult learners, Chi-Square (33, N = 693) = 946.148,  $p < .05$ .

From the data obtained it can be concluded that Bulgarian education institutions do not provide strong support to adult learners; presented numerically this support ranges between “4 and 6” on a scale of “0 to 16”. At the same time institutions of ISCED 5 + 6 as compared to all other Bulgarian institutions feature a higher degree of support to adult learners.

**Cumulative flexible studies index** reflects the practices of flexible organization of learning – by correspondence or distance learning, individual work or work in small groups.

Cumulative flexible studies index shows (Annex 3, Table 5.5., Diagram 5.5.), that the frequencies are highest at value 2.00 (41.3%) and value 3.00 (23.1%), followed by a frequency of 12.8% at value 5.00.

At value 2.00 the highest frequencies are for institutions of ISCED 1 + 2 (75.9%), ISCED 4 (51.2%) and ISCED 5 + 6 (38.2%). The most flexible are the institutions at ISCED 3, which have a frequency (30.0%) at value 5.00, several times greater than the remaining ISCED groups, and at value 6.00 have a frequency of 7.0%.

The results reveal significant dependency between the education level of institutions and the flexibility of the education offered by them, Chi-Square (21, N = 814) = 431.377,  $p < .05$ .

From the data obtained it can be concluded that Bulgarian education institutions do not offer mobile forms of education for adult learners. Most frequently the standard academic year is used as the overall time frame of organizing work, study in the classroom or within a course is preferred to the implementation of such forms as "individual study" or "work in groups".

This indicates that with respect to the above mentioned characteristics of readiness "for" and implementing an active attitude to LLL, Bulgarian institutions have no adequate potential, and the various forms of mobility in teaching, methods of teaching, learners' admission and organization of courses are isolated cases or partial measures. It is still not possible to consider a global approach to LLL, present at all education levels in the Bulgarian environment, despite that forms of distance and evening study are emerging in most education institutions and that the modular system of education is being introduced.

#### **4.2.2. Teachers and learning process**

The objective of this part is to show what measures teachers use to stimulate adult learners' participation, and how these measures differ (do not differ) for the various ISCED levels.

Theoretically several indicators for the learning process were established:

**A) Affiliation between students** – the extent to which friendships are created in the learning process and learners think that it is enjoyable to study together (Annex 3, Table 6.1., Diagram 6.1.). Between adult learners in the Bulgarian conditions there is „Strong affiliation”, indicated by 66.9% or „Some affiliation” with a frequency of 25.5%. The answer „No affiliation” has a frequency of 7.6%. For „Strong affiliation” the highest frequencies are for individuals of ISCED 1 + 2 (80.0%), followed by ISCED 5 + 6 (66.5%), ISCED 4 (63.3%), ISCED 3 (58.7%). For the answer „Some affiliation” dispersions of respondents from different education levels are very similar: ISCED 4 (29.4%), followed by ISCED 3 (28.2%), ISCED 5 + 6 (26.5%), ISCED 1 + 2 (17.5%).

The results reveal significant dependency between the education level of institutions and affiliation between students, Chi-Square (6, N = 1001) = 36.346,  $p < .05$ .

The data obtained shows that in the Bulgarian environment adult learners have strong affiliation and emotional commitment related to their study at education institutions.

**B) Active involvement of students**, perceived as practices, within which learners often ask questions to their teachers and most of them like the study programme.

The results show (Annex 3, Table 6.2., Diagram 6.2.) that adult learners in Bulgarian conditions are „Very actively involved”, such is the answer given by 52.9% of individuals studied; „Partly actively involved” is indicated by 37.0% of respondents and „No actively involved” has a frequency of 10.1%.

For the answer „Very actively involved”, the highest frequencies are for adult learners of ISCED 4 (60.6%), followed by ISCED 3 (56.2%), ISCED 5 + 6 (48.6%), ISCED 1 + 2 (46.1%).

„Partly actively involved” by ISCED levels has the following dispersions: the highest representation is for individuals of ISCED 1 + 2 (46.9%), followed by ISCED 5 + 6 (39.3%), ISCED 3 (32.6%) and ISCED 4 (29.5%).

The results reveal significant dependency between the education level of institutions and the active involvement of students, Chi-Square (6, N = 997) = 21.569,  $p < .05$ .

From the results it can be concluded that Bulgarian adult learners are actively involved in the learning process.

**C) The teacher is learner-centred and allows student influence in course planning decisions** – learners feel free to disagree with their teachers' instructions, and teachers do not insist on learners dealing with the tasks in the same way they have proposed (Annex 3, Table 6.3., Diagram 6.3.).

The Bulgarian representative sample has the highest frequencies for „Two aspects of L-C approach recognized” (44.9%). The answer „One aspect of L-C approach recognized” is indicated by 27.2% of respondents, followed by „Three aspects of L-C approach recognized” with a frequency of 16.0%; the lowest frequencies are for the answer „No learner-centered approach” (7.8%).

Examined by ISCED levels, for the answer “Two aspects of L-C approach recognized” the dispersions of respondents are similar: the highest share has ISCED 1 + 2 (49.1%), followed by ISCED 5 + 6 (47.7%), ISCED 4 (42.2%), ISCED 3 (41.1%).

„Three aspects of L-C approach recognized” is indicated by 27.3% of ISCED 3, followed by ISCED 4 (19.7%), ISCED 1 + 2 (16.7%), ISCED 5 + 6 (16%).

The answer „One aspect of L-C approach recognized” is indicated by 31.1% of respondents of ISCED 1 + 2, followed by ISCED 4 (27.5%), ISCED 5 + 6 (27.4%) and ISCED 3 (23.3%).

The results reveal significant dependency between the education level of institutions and learner-centered approach, Chi-Square (9, N = 962) = 24.545,  $p < .05$ .

The results provide evidence that within the learning process adult learners' needs definitely affect the decisions and the way of teaching at the Bulgarian education institutions.

**D) Level of teacher support** – teachers help learners and treat them as individuals.

The results (Annex 3, Table 6.4., Diagram 6.4.) show that the answer „High level of teacher support” is given by 69.0% of the representative sample. „Medium level of teacher support” has a frequency of 21.7% and „No teacher support” has a frequency of 9.3%.

By ISCED levels the following picture emerges: “high level of teacher support”: the highest frequencies are for ISCED 1 + 2 (87.8%), followed by ISCED 3 (74.9%), ISCED 4 (70.7%), ISCED 5 + 6 (44.0%).

The answer „Medium level of teacher support” is indicated by 37.7% of respondents of ISCED 5 + 6; as well as 19.8% of ISCED 3; and 19.5% of ISCED 4; 8.9% and ISCED 1 + 2.

The results reveal significant dependency between the education level of institutions and the level of teacher support, Chi-Square (6, N = 1003) = 122.172,  $p < .05$ .

The results illustrate a high level of teacher support provided within Bulgarian institutions, which is a good sign of professionalism and modernity.

**E) Level of task orientation** – activities unrelated to the course are minimal and the focus on the task is important.

The results reveal (Annex 3, Table 6.5., Diagram 6.5.) that: „High level of task orientation” has a frequency of 43.0%; the highest frequencies being for ISCED 4 (47.1%) and the lowest for ISCED 1 + 2 (38.7%); between them are the two close values of ISCED 3 (43.8%) and ISCED 5 + 6 (42.4%).

„Medium level of task orientation” has a frequency of 41.7%: the highest frequency is for ISCED 3 (44.2%) and the lowest frequency is for ISCED 1 + 2 (38.2%); ISCED 4 is presented by 43.4% of the respondents and ISCED 5 + 6 has a frequency of 40.9%.

„No task orientation” has a frequency of 15.2%, the highest being for ISCED 1 + 2 (23.1%) and the lowest for ISCED 4 (9.4%); between them are the frequencies for ISCED 5 + 6 (16.7%) and ISCED 3 (11.9%).

The results reveal significant dependency between the education level of institutions and the level of task orientation, Chi-Square (6, N = 999) = 20.741,  $p < .05$ .

The data obtained show that according to the judgment of the respondents, in Bulgarian institutions there is no strong link between the learning activities and the objectives of the respective course. The opinion that there is such a deficiency is indicated by over half of the respondents and this shows that there are irrelevant activities in the learning process, and this waste of effort is not a good sign for the quality of ongoing teaching in the Bulgarian environment.

**F) Clear and well organized activities** – the study programme is well organized and there is a clear perception about the direction.

The results show (Annex 3, Table 6.6, Diagram 6.6) that the option: „Activities are clear and well organized” has a frequency of 50.3%, the highest frequencies are for ISCED 4 (60.0%) and the lowest ones for ISCED 5 + 6 (35.7%). Between them are located the frequencies for ISCED 3 (58.6%) and ISCED 1 + 2 (46.8%).

„Some activities are clear and well organized” have a frequency of 25.7%, and the group constructed of those indicating this answer reflects very close dispersions: ISCED 3 (27.7%), ISCED 5 + 6 (27.1%), ISCED 1 + 2 (24.7%), ISCED 4 (23.3%).

The option „Activities are not clear and well organized” has a frequency of 24.0%: here the greatest frequency belongs to individuals of ISCED 5 + 6 (37.3%), followed by ISCED 1 + 2 (28.5%), ISCED 4 (16.7%), ISCED 3 (13.7%).

The results show significant dependency between the education level of institutions and the presence of well organized activities in the education institutions, Chi-Square (6, N = 991) = 58.152,  $p < .05$ .



The data obtained signify that the greater part of the respondents (over 2/3) define the activities in the education institutions as well organized, which is an indicator for the quality of the ongoing education.

**G) Personal goal attainment** – learners can select tasks which match their personal interests and most of them learn what they wanted to.

The results show (Annex 3, Table 6.7., Diagram 6.7.) that the highest frequencies are for answer "One aspect of personal goal attainment" (49.2%); When looking at the frequencies for this answer for the different ISCED level we revealed that for ISCED 4 the frequency was (52.3%); for ISCED 3 (50.2%), for ISCED 5 + 6 (49%), ISCED 1 + 2 (45.1%).

„Two aspects of personal goal attainment recognized” has a frequency of 29.5%, and data by education levels is: ISCED 1 + 2 (40.9%), ISCED 3 (29.0%), ISCED 4 (26.7%), ISCED 5 + 6 (22.2%).

„No personal goal attainment” has a frequency of 21.3%; by education levels this is presented as follows: ISCED 5 + 6 (28.8%), ISCED 4 (21.0%), ISCED 3 (20.8%), ISCED 1 + 2 (13.9%).

The results reveal significant dependency between the education level of institutions and personal goal attainment, Chi-Square (6, N = 996) = 29.983,  $p < .05$ .

## Chapter 5.

### **MICRO level analysis:**

### **Experiences and perspectives of adults in formal learning**

The analysis hereafter focuses on the role of key social factors on internal individual processes which, in their turn, influence the creation and maintenance of LLL inequalities. More concretely, we explore how external social characteristics determine the attitudes, motivation, satisfaction, and confidence of adult learners with regard to their involvement in lifelong learning. Further, we are interested how these internal processes frame the chances of adult learners to utilize the LLL opportunities. These objectives suggest the basic distinction of external characteristics as independent variables and of the internal characteristics as dependent variables.

#### **External social characteristics as independent variables**

The following variables are considered to be important determinants of individual processes:

- a) *socio-demographic characteristics* (gender, age, nationality);
- b) *socio-economic background* (income, parents' education);
- c) *immediate social environment* (marital status, household composition, involvement in social, cultural and political activities, emotional involvement of family – friends – employers;
- d) previous educational experience of respondents (highest level of education completed, leaving full time education).

#### **Internal characteristics as dependent variables**

- *Attitude towards LLL* in general – the extent to which respondents believe that success is related to lifelong learning, and whether it is worth for adults to invest in LLL.
- *Enjoyment of learning* - the degree to which respondents positively experience the process of learning.
- *Confidence in successful completion of formal education* – the degree to which respondents experience as frustrating obstacles such as transportation, child care, financial difficulties, inconvenient schedule, family tensions.

- *Controlled vs autonomous motives for involvement in LLL* – the degree to which respondents have been triggered to start studying either by their genuine personal dispositions or by conformist adjustment to social norms. In other words, whether the decision to start studying was led by spontaneous feelings of enthusiasm and interest or by (social) environmental pressure.
- *Satisfaction with the process of LLL* – satisfaction with the context of formal learning e.g. the study program, the learning climate and the practical organization of the educational institution.
- *Satisfaction with the outcomes* – e.g. the degree to which respondents estimate positively the perspectives and career opportunities LLL opens for them.

### ***Data processing***

To explore the impact of the above outlined factors on the dependent variables we ran linear regression analysis. To reveal which of the independent variables are more important in explaining the individual characteristics we created 4 regression models for each dependent variable and for each ISCED level. In all regressions ran the four blocks of factors were entered in succession. It should be noted that for ISCED levels 1 and 2 two variables (unemployment and low income) were removed from the models because they were with missing values for the entire sample.

#### **5.1. Who has a more positive/ negative attitude towards lifelong learning?**

The analysis in this part of our report has as its point of departure the assumption that both positive attitude towards and enjoyment with learning are important prerequisites for the decision of an adult person to resume his/her education. In our analysis the positive attitude was operationalised as the belief that learning is important for success in life and that it is worth spending money on it. The variable enjoyment/dislike of learning was measured with the statements ‘I enjoy educational activities that allow me to learn with others’, and ‘I dislike studying’. In our presentation we will follow this sequence – first discussing the influence of the factors on attitude and then turning to their impact on enjoyment.

### *Attitude towards learning*

The overall impression from the results we obtained is that there are few factors, which have a significant impact on the adult students' attitude towards learning. At the lowest level of education we identified two factors that tend to have significance. These were the nationality of the respondent:  $F(3, 41) = 2.539$ ;  $p = .070$ ;  $B = .422$ ;  $t(41) = 2.129$ ;  $p < .05$ ; the support of the employer  $F(13, 31) = 2.455$ ;  $p < .05$ ;  $B = .389$ ;  $t(31) = 2.496$ ;  $p < .05$ . In other words, here the Bulgarian respondents have more positive attitude than the minority representatives, and the adult learners who are supported by their employers have a more positive attitude than the unsupported ones.

At the next level (ISCED level 3) the factor influencing attitude towards learning is the unemployment of the respondent. Unemployed respondents have more-positive attitude towards continuing education [ $F(7, 88) = 2.446$ ;  $p < .05$ ;  $B = .322$ ;  $t(88) = 2.981$ ;  $p < .01$ ].

The attitude of college students (ISCED level 4) toward resuming education is influenced by only one variable and this is gender, with women clearly more positively oriented [ $F(3, 104) = 5.170$ ;  $p < .01$ ,  $B = -.299$ ;  $t(104) = -3.070$ ;  $p < .01$ ].

At the highest level of education no one of the variables included in the 4 regression models have any significant impact on the attitude.

### *Enjoyment of learning*

The educational levels at which we obtained significant influences of certain factors were level 4 (college students) and levels 5 and 6 (respondents with higher education). For both levels women enjoy learning more than men: for level 4 [ $F(3, 104) = 5.170$ ;  $p < .01$ ;  $B = -.299$ ;  $t(104) = -3.070$ ;  $p < .01$ ], and for level 5 and 6 [ $F(3, 103) = 3.162$ ;  $p < 0.5$ ,  $B = -.195$ ;  $t(103) = -2.053$ ;  $p < .05$ ]. For respondents with higher education, in addition to gender, the factors which tend to influence positively the enjoyment of learning are age (with young people enjoying studying more  $B = -.204$ ;  $t(104) = -2.156$ ;  $p < .05$ ) and unemployment (with employed respondents enjoying more [ $F(7, 99) = 2.131$ ;  $B = -.210$ ;  $t(99) = -2.138$ ;  $p < .05$ ]).

## **5.2. Who has controlled rather than autonomous motives for participation in formal education?**

First we present the results regarding the impact of the independent variables on the job related vs person related motives of the adult learners to resume their education. The results show that there is no stable and systematic influence of certain factors along the ISCED levels. Thus, whereas for ISCED levels 1 and 2 the important factors determining the job or person related motives pertain predominantly to the socio-economic background and the immediate social environment, for ISCED level 5 and 6 prevailing is the impact of the socio-demographic factors. In particular for ISCED level 1 and 2 there were 3 significant regression models (the second third and fourth models). In model 2 the factor which influenced the motivation of the adult learners was the education of the respondent's father. The more educated the father the more person related the motive to resume education  $F(5, 43) = 2.571$ ;  $B = -.706$  ( $t(43) = -2.944$ ;  $p < .005$ ). In model 3 the important factors are the respondents' involvements in social activities and in political activities. The results show that the more involved a person is in social activities the less job related are the motives to study  $F(13, 35) = 5.190$ ;  $p < .001$ ;  $B = -.240$ ;  $t(35) = -2.180$ ;  $p < .05$ . For ISCED level 3 the significant models were two - models 3 and 4. For this level of education the influencing factors are very similar to those for the lower levels of education. It was revealed that this motivational dimension was susceptible to the level of education of the respondents' mother, to the support of the family and friends, and to the cultural involvement of the respondent. Indeed the mother's education tend to correlate with the personal motivation for LLL  $F(15, 81) = 2.034$ ;  $p < .05$ ;  $B = -.392$ ;  $t(81) = -2.372$ ;  $p < .05$ . By contrast, the support of the family and friends runs parallel to the job related motivation of the respondents  $B = .231$ ;  $t(81) = 2.037$ ;  $p < .05$ . The same is true for the involvement of the respondents with cultural activities. It seems that the contact with wider cultural horizons enhances the need for better realization at work through education  $B = .301$ ;  $t(81) = 2.705$ ;  $p < .05$ . For level 4 no significant impact of the factors was found. As mentioned above, for ISCED levels 5 and 6 the pattern of correlation between the factors and the type of motivation changes. Instead of being socio-culturally 'sensitive' in this case the motivation of the respondents is influenced by the socio-demographic factors. The three significant regression models [Model 1:  $F(3, 105) = 6.101$ ;  $p < .01$ ; Model 3:  $F(15, 93) = 2.561$ ;  $p < .01$ ; Model 4:  $F(17, 91) = 2.820$ ;  $p < .01$ ] allow us to attempt at describing the profile of the adult who is eager to continue his/her education for job related reasons at this ISCED level as a young [ $B = -.305$ ;  $t(105) = -3.350$ ;  $p < .01$ ], male [ $B = .244$ ;  $t(105) = 2.698$ ;  $p < .01$ ], supported by the employer [ $B = .281$ ;  $t(93) = 2.862$ ;  $p < .01$ ], and with previous full time daytime education [ $B = -.229$ ;  $t(91) = -2.057$ ;  $p < .05$ ].

At the background of the outlined general picture of the job related versus person related motivation of the respondent now we turn to another, though related dimension of motivation, namely autonomous/controlled motivation. According to the theoretical framework of the study, the controlled motivation implies that the reasons an adult learner could have had for resuming his/her education pertains to more or less conformist rather than authentic (e.g. self generated motives). In other words if an adult starts studying in order to earn more, to obtain certificate, because the employers obliged him/her, or due to the advise of a friend this would indicate the prevalence of the controlled motives. Rather unexpectedly, the only ISCED level at which the controlled motivation tend to have an impact is the highest level of education. The regression model significant at this level is Model 1:  $F(3, 100) = 2.442$ ;  $p = .06$ . The controlled motivation plays a role for a young, rather than for a more mature learner [ $B = -.225$ ;  $t(100) = -2.306$ ;  $p < .05$ ].

As opposed to the controlled motivation, the adult learner's decision to study can be determined by authentic, intrinsic, self generated motives such as interest in the subject matter, the need to gain self awareness and the introduction of greater variety, spontaneity, and liveliness in one's daily activities. Here too, somewhat paradoxically at first glance, the respondents who have most pronounced self generated motivation are those at the lowest ISCED level. At this level we obtained two significant regression models [Model 1:  $F(3, 43) = 4.519$ ;  $p < .01$ ;  $p < .01$ ; Model 3:  $F(13, 33) = 2.437$ ;  $p < .05$ ]. Further, the variables with significant impact on the learners' autonomous motivation to study are: gender [ $B = .412$ ;  $t(43) = 2.232$ ;  $p < .05$ ] with males more autonomous in their propensity to continue studying; age [ $B = .286$ ;  $t(41) = 2.141$ ;  $p < .05$ ] with more mature learners more autonomously motivated; and nationality [ $B = -.538$ ;  $t(33) = -2.925$ ;  $p < .01$ ] with ethnic minorities tending to be more autonomous. In addition to these socio-demographic factors this ISCED level respondents' autonomous motivation correlates significantly with the support of the employer [ $B = .379$ ;  $t(33) = 2.645$ ;  $p < .05$ ].

Given the theoretical background, at first glance these results seemed to be difficult to explain. When we consider, however, in more details the characteristics of the ISCED level 1 and 2 sample the picture becomes more intelligible. It should be clearly noted that the 1 and 2 ISCED level sample comprises exclusively prisoners. Undoubtedly, their existential situation is rather peculiar. Living in completely closed and restricted environment there it is but natural that they would strive to give some meaning to their existence. As far as in a penitentiary there is a severely constricted space for independent decisions, to start studying might turn to be one of the few possible autonomous choices.

### **5.3. Are adult learners confident in their ability to successfully complete the selected course in formal education? Who is more likely to be confident?**

In this section we outline the influence of the 4 blocks of independent variables, namely the socio-demographic characteristics, the socio-economic background, the immediate social environment, and the previous educational experience on the confidence of the respondents to complete their studies. We did not obtain any systematic influence of the included factors along the different ISCED levels. The only level at which we identified significant regression model was ISCED level 4. This is Model 3 [ $F(15, 91) = 1.842; p < .05$ ]. Respondents at this level are college students. What seem to enhance their confidence that they will finish this stage of their studies are the following variables: the support of friends [ $B = .364; t(91) = 3.565; p < .01$ ]; the lack of emotional involvement of the family [ $B = -.233; t(91) = -2.178; p < .05$ ] and the absence of social engagement [ $B = -.221; t(91) = -2.230; p < .05$ ]. The scarcity of significant dependencies among the variables allow us only to speculate about the possible explanation of these results.

### **5.4 Are adult learners satisfied with the process and the outcome of participating in formal education?**

Satisfaction with the process of learning and with the outcomes of participating in lifelong learning is crucial for the persistence adult students will demonstrate. In our study satisfaction with the process of learning is represented by statements pertaining to the respondents' appreciation of the general progress of the entire study programme, of the learning climate and of the organization of the educational institution. In its turn, satisfaction with the outcome of the participation in lifelong learning is represented by statements regarding the perceived amount of knowledge acquired through formal education and of the expectations concerning the perspectives that formal education might open for the adult learner.

The results show almost no diversity in the determinants of the process and outcome satisfaction. Indeed, across the levels there are two main recurring determinants – gender and age. There are, however, some peculiarities for the different ISCED levels in outcome satisfaction.

Regarding satisfaction with the process of participating in formal education for ISCED level 1 and 2 there were no sufficient valid cases for running the regression. For ISCED level 3 no one of the regression models is significant. The factors, which tend to have influence on satisfaction in ISCED level 4 [ $F(7,$

95) = 2.703;  $p < .01$ ] are gender [ $B = .173$ ;  $t(95) = 1.69$ ;  $p = .08$ ] with males more satisfied than females, and age [ $B = -.203$ ;  $t(95) = -1.98$ ;  $p = .05$ ] with younger students more satisfied with the process of studying. At the highest level of education significant are Model 1 [ $F(3, 105) = 2.923$ ;  $p = .05$ ] and Model 2 [ $F(7, 108) = 6.383$ ;  $p = .06$ ], the determinants of satisfaction being gender [ $B = 1.99$ ;  $t(105) = 2.07$ ;  $p < .05$ ], again man more satisfied than women, and age [ $B = -1.65$ ;  $t(105) = -1.746$ ;  $p = .08$ ], younger students more satisfied than older.

Turning to outcome satisfaction we can discern a slightly different constellation of factors as compared to satisfaction with the process of learning. For ISCED level 1 and 2 there were no sufficient valid case for running the regression. For ISCED level 3 the main determinant of outcome satisfaction is the emotional involvement of the employer [ $F(15, 82) = 1.80$ ;  $p = .05$ ;  $B = .325$ ;  $t(82) = 2.86$ ;  $p < .05$ ]. At ISCED level 4 there is no significant regression model. For educational levels 5 and 6 two of the models are significant. Model 1 [ $F(3, 105) = 2.45$ ;  $p = .06$ ] and Model 4 [ $F(17, 91) = 1.78$ ;  $p = .05$ ]. The concrete determinants are: firstly age [ $B = -.07$ ;  $t(105) = -1.98$ ], thus young students tend to be more satisfied and, secondly, level of previously completed education [ $B = .23$ ;  $t(91) = 2.189$ ;  $p = .05$ ]. Here, the higher the previously achieved level of education the greater the satisfaction with the outcomes of formal lifelong learning.

## **Conclusions regarding the obtained results**

Summing up our impressions from the obtained results on the determinants of LLL inequalities, we have to say that they seem to represent variations of one recurrent theme: scarcity of significant dependencies among the (independent and dependent) variables. In addition, in the limited number of established significant dependencies there is an impressive part of them, which contradicts strikingly the expectations based on both social theory and common sense (as is the case of reverse dependency between the educational level, on the one hand, and the motivational autonomy of the individual, on the other). The reasons for this unexpected situation might be understood in terms of stages of historical development or of “Culture Shift” (Inglehart). The national society in Bulgaria we are studying with regard to LLL inequalities may turn to be, for instance, too “underdeveloped” with respect to the late-modern processes of value change from material to post-material values.

Indeed, contrary to any theoretical expectations, our data show that the least educated in our sample prove to be most post-materially oriented and the most educated – least post-materially oriented. However, if we take into consideration



that the predominant culture in Bulgaria is still materialist, (pervading not only formal education, but also family, mass-media, and other channels of socialization), then this seeming paradox becomes more intelligible: in such conditions the recruitment of adult learners is only logical to be considered a small-scale, chance-like, elusive process, which is not rooted in a strong and systematic enough (post-materialist) socializing (educational, in particular) impact. If this is true, then in the constellation of post-materialism promoting social factors, the role of some specific social niches may become even more crucial than the level of formal education.

Something of the kind seems to take place in our sample: the least educated group (ISCED level 1-2) consists of adult prisoners/convicts, for whom, in their isolation, the adult educational process is, most likely, a means for introducing sense and self-fulfillment in their lives; on the other side, fully immersed in the materialist culture in Bulgaria, the most educated group (ISCED level 5-6) has to conform with its strong materialist pressure.

Of course, the outlined explanatory perspective is no more than a theoretical conjecture, which needs further empirical verification, especially by comparing our results with those coming from societies with similar cultural situation.

In addition to this theoretical speculation the scarcity of significant dependencies might be due to some methodological problems regarding the synthaxis for the regression analysis. We consider that block-wise entering of the independent variables might have also be “responsible” for the many insignificant dependencies we obtained. Therefore we decided to change the design a bit and tried to explore another path of analysis (see Annex 4).

## Chapter 6.

### MESO level analysis:

### **The role of the formal education system in stimulating participation and reducing individual inequalities in participation**

The following analysis aims to find an answer to the central questions posed in the present study. What is the role of formal education institutions in stimulating the participation of adults in life long learning? To what extent do the different formal education institutions support adults for their inclusion and participation in the study programmes? Are the institutions of the formal education system able to compensate and reduce initial inequalities in experience and perspectives between adults with different educational background?

The object of study is the influence of the main characteristics of institutional policies of the different schools and the ways of organization and conducting of the learning process in them on adults' experiences and perspectives. Adults' experiences are examined through the following alternating indicators: a) learner's confidence in being able to complete the study programme; b) problems experienced by learner in relation to participation in adult education; c) learner's satisfaction with the learning process; d) learner's satisfaction with the outcomes of the learning process.

#### **6.1. Formal learning institutions**

The analysis is focused on revealing the influence on adults' experiences of the following *institutional characteristics of education institutions*:

- **LLL policy index** – institutional commitment to implementation of life long learning, expressed through the inclusion of life long learning in the school mission, as well as the availability of specific measures for improving teachers' qualification and ensuring external control on the quality of education.

- **Access index** – development of flexible and open institutional access policies through elimination of the restricting conditions for enrolling, accreditation of skills acquired through experience in production, transfer of credits, organization of preparatory programmes. through elimination of the restricting conditions for enrolling, accreditation of skills acquired through

experience in production, transfer of credits, organization of preparatory programmes.

- **Support index** – establishment of practices and policies for support (financial or in terms of services) to adult learners and especially to the underprivileged groups.

- **Flexible studies index** – practices of flexible organization of learning – by correspondence or distance learning, individual work or work in small groups.

- **Outreach strategy index** – presence of an institutional strategy and policies for attracting representatives of underprivileged groups through active search, organization of preparatory programmes, providing special discounts etc.

For each education level and for each of the alternating indicators describing adults' experiences, a regression analysis was performed with the independent alternating indicators – the institutional characteristics of schools, specified above. The five institutional characteristics were introduced progressively, statistically appearing possible to construct a different number of models in the various cases. In no case however was it possible to construct a model incorporating all institutional characteristics.

### **6.1.1. Role of institutions in stimulating participation in lifelong learning**

#### ***A. Influence of the characteristics of education institutions on the confidence of adult learners in completing their education successfully***

Our data does not allow verify whether at the level of *primary and middle schools* all institutional characteristics defined have influence on the confidence of adult learners that they will complete successfully their education, since there are some missing values. Therefore a regression analysis was performed with the dependent alternating indicator "confidence in the successful completion of education" and only two institutional characteristics as independent alternating indicators - LLL policy index и Support index, which were introduced progressively. In the first model only the first predictor was incorporated. Results show that the institutional policies of primary and middle schools, directed to improving the qualification of teachers and control on the quality of education significantly influence learners' confidence in completing successfully their education [F (1, 14) = 11.649; p < .001; St.Beta = 0.28 (t = 3.41; p < .001)]. In the second model one more predictor was introduced – institutional practices for learners' support. This model also proved a working one, which means that both factors – policies for increasing teachers' qualification and the quality of learning (1) and practices in support of learners (2) – have a significant influence on learners' confidence [F (2, 136) = 7.56; p < .001; St.Beta 1 = 0.38 (t

= 3.86;  $p < .0001$ ); St.Beta 2 = 0.18 ( $t = 1.81$ ;  $p < .05$ )]. The addition of the second factor allows us to explain the greater part of the variations in the learners' confidence in obtaining a diploma ( $R Sq. = 0.1$ ).

None of the analysed institutional characteristics of *secondary schools* influences significantly the confidence of adult learners in completing successfully their education.

Only two institutional characteristics at the level of *colleges* - Access index (1) and Flexible studies index (2) – influence weakly the confidence of adult learners in completing their education successfully [St.Beta 1 = -1.42 ( $t = -1.99$ ;  $p < .05$ ); St.Beta 2 = -0.87 ( $t = -2.3$ ;  $p < .05$ )]. Special attention should be given to the fact that both the establishment of more open access policies and the creation of more flexible forms of education correlate negatively on the confidence of learners in completing their education successfully, which means that they cause this decrease, however weak it may be.

None of the analysed institutional characteristics of the *higher education schools* has significant influence on the confidence of adult learners in completing their education.

**Summary:** Regression analysis shows a weak and contradictory influence of the institutional characteristics of education institutions on the confidence of adult learners in completing their education successfully. For secondary and higher education schools the institutional characteristics defined do not have a significant influence on the confidents of learners in completing their education. For primary and middle schools two factors have a positive influence on learners' confidence, however weak it may be – the school's commitment to life long learning and to improving teachers' qualification, and the creation of various practices in support of learners, while for colleges this is the introduction of more open and flexible access policies. An unexpected result is the negative influence due to the implementation of more flexible forms of education and the establishment of more open access policies on the confidence of learners in completing their education.

### ***B. Influence of the characteristics of education institutions on the problems confronting adult learners***

Regression analysis reveals that two of the institutional characteristics of primary and middle schools - LLL policy index и Support index – are significantly and positively related to the number and character of problems faced by adult learners [ $F(2, 129) = 34.90$ ;  $p < .0001$ ; St.Beta 1 = 0.70 ( $t = 7.99$ ;

$p < .0001$ ); St.Beta 2 = 0.23 ( $t = 2.67$ ;  $p < .01$ )]. The two factors explain over one third of the variations in learners' problems ( $R Sq. = 0.35$ ).

None of the analysed institutional characteristics of *secondary schools* has significant influence on the adults' assessment of the difficulties they have to overcome with respect to their education.

None of the analysed institutional characteristics of *colleges* has significant influence on the problems faced by adult learners.

None of the analysed institutional characteristics of *higher education schools* has significant influence on the problems faced by adult learners.

**Summary:** On the whole the analysis reveals a lack of significant influence of the institutional characteristics of schools on the number and character of the problems faced by the learners. An exception is made only by primary and middle schools where the commitment of the school to improving teachers' qualification and the quality of education, and to the creation of various practices in learners' support correlate positively with the number of learners' problems. This result however „strange” at first glance is related to the specifics of the studied primary and middle schools, which are located in the prisons. Here we shall remind again that over half of the students in the prison schools indicate that they have no problems with their education. Apparently those who encounter more problems in their education, also display more interest in what is happening in their schools and are more informed about the availability of special institutional forms in support of the learners as well as about the specific initiatives of the schools for improving the quality of the learning process.

### ***C. Influence of the characteristics of education institutions on the learners' satisfaction with the education process***

Only one of the institutional characteristics of the *primary and middle schools* - Support index – has some influence on the adult learners' satisfaction with the learning process [ $F(2, 133) = 8.31$ ;  $p < .0001$ ; St.Beta = 0.40 ( $t = 3.96$ ;  $p < .0001$ )]<sup>1</sup>. This factor explains about 10% of the variations in the learners' satisfaction ( $R Sq. = 0.10$ ).

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<sup>1</sup> Here and in the following analysis statistical data is provided of the models, in which a certain factor was introduced for the first time, as well as the statistical indicators for that factor only.

None of the analysed institutional characteristics of *middle schools* has any influence on the satisfaction of adult learners with the learning process.

At the level of *colleges* two institutional characteristics display significant influence on the learners' satisfaction with the education process - LLL policy index и Outreach strategy index. The institutional commitment to life long learning through the implementation of measures for improving teachers' qualification and for control on the quality of the learning process emerges as a very strong factor [St.Beta 1 = 0.61 (t = 4.65; p < .0001)]. This factor explains over 35% of the variations in the learners' satisfaction. There is a "strange" connotation in the influence of the availability of policies for active attraction of representatives of the underprivileged groups [St.Beta 2 = -0.41 (t = -2.22; p < .05)], as far as it appears that active policies towards the underprivileged groups instead of increasing, actually decrease learners' satisfaction. The addition of this factor contributes for a relatively slight increase of the model's explanatory power (from R Sq. = 0.35 to R Sq. = 0.41).

None of the analysed institutional characteristics of the *higher education schools* has significant influence on the satisfaction of adult learners with the learning process.

**Summary:** As a whole the institutional characteristics of the schools are not a significant factor for the satisfaction of adult learners with the learning process. Outstanding is only the positive influence on the learners' satisfaction in colleges when these schools display a commitment to improving teachers' qualification and control over the quality of the learning process.

#### ***D. Influence of the characteristics of education institutions on adult learners' satisfaction with the outcomes of their education***

The regression analysis shows that only one of the institutional characteristics of the *primary and middle schools* - Support index – has influence on the satisfaction of adult learners with the outcomes of the learning process [F (2, 129) = 10.80; p < .0001; St.Beta = 0.45 (t = 4.56; p < .0001)]. This factor explains about 13% of the variations in the learners' satisfaction (R Sq. = 0.13).

Also, only one of the institutional characteristics of the *middle schools* - LLL policy index – has influence on the satisfaction of adult learners with the outcomes of the learning process [F (1, 21) = 7.69; p < .01; St.Beta = 0.52 (t = 2.77; p < .01)]. This factor explains over a quarter of the variations in the learners' satisfaction with the outcomes of education (R Sq. = 0.27).

None of the analysed institutional characteristics of *colleges* has significant influence on adult learners' satisfaction with the outcomes of the learning process.

None of the analysed institutional characteristics of *higher education schools* has significant influence on the satisfaction of adult learners with the outcomes of the learning process.

**Summary:** As a whole, the institutional characteristics of the various types of schools are not a significant factor for the satisfaction of adult learners with the results of the learning process. Outstanding is only the positive influence of the implementations of measures for attracting learners from disadvantaged groups on the learners' satisfaction with the outcomes of education in the secondary schools, as well as the positive influence of the commitment to improving teachers' qualification and the control over the quality of education on the satisfaction with the outcomes of education for the learners at the primary and middle schools.

### **6.1.2. Role of formal education institutions in reducing inequalities in participation**

Regression analysis was performed on the whole group of adult learners using as independent alternating factors only those factors related to personal history and those characteristics of education institutions which the previous analysis has revealed to be significant factors<sup>2</sup>. Results show that only family support has an influence on the confidence in the successful completion of education [St.Beta = -0.18 (t = -2.11; p < .05)]. Notable is the fact that this influence is negative, i.e. the greater family support leads to reducing the learners' confidence that they will complete their education. Presumably adult learners perceive the active support of their families as a peculiar kind of assessment that they themselves are not capable of making their education choices, which naturally affects their confidence in completing their education.

Satisfaction with the learning process is influenced by the following factors: sex (1), mother's education (2) and the schools' commitment with life long learning and improving teachers' qualification (3) [F (13, 153) = 2.45; p < .005; St.Beta 1 = 0.17 (t = 2.19; p < .05); St.Beta 2 = -0.25 (t = -2.06; p < .05); St.Beta 3 = 0.42 (t = 3.81; p < .0001)]. Among them outstanding is the strong influence of the third factor - LLL policy index.

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<sup>2</sup> The following alternating factors were included: Cultur\_i, Friend\_i, Social\_i, Employ\_i, Gender, Father's education, Age, Family\_i, Mother's education, Flex\_inx, Suppor\_i Access\_i, CumPol\_i.

If we divide the whole entity of adult learners in two groups - low literate adults (including learners in the primary, middle and secondary schools) and high literate adults (including learners beyond secondary education and those at higher education schools) – and compare them with the indicators of the LLL policy index, it can be seen that this index has much greater values for the schools in the first groups (see the analysis and diagrams to chapter 4).

It can be concluded that there is only one possibility for education institutions to exert influence towards compensating the initial inequalities in experience and perspectives between adults with different educational background and this is their systematic and active engagement with the improvement of teachers' qualification and the control over the quality of education.

## 6.2. Learning process

The analysis is focused on disclosing the influence on adults' experiences of the following **characteristics of the learning process**:

- ***affiliation between the students*** – in the course of the learning process friendships are created and learners think that it is enjoyable to study together;
- ***active involvement*** – learners often ask questions to their teachers and most of them like the study programme;
- ***the teacher is learner-centred and allows student influence in course planning decisions*** – learners feel free to disagree with their teachers' instructions, and teachers do not insist on learners dealing with the tasks in the same way they have proposed;
- ***teacher support*** – teachers help learners and treat them as individual personalities;
- ***task orientation*** – activities unrelated to the course are minimal and the focus on the task is important;
- ***clear and organised activities*** – the study programme is well organized and there is a clear perception about the direction;
- ***personal goal attainment*** – learners can select tasks which match their personal interests and most of them learn what they wanted to.

For each education level and for each of the alternating factors, describing adults' experiences, regression analysis was performed using as independent alternating factors the above listed characteristics of the learning process, which were introduced progressively. In all cases it proved statistically possible to construct a model, comprising all 7 characteristics of the learning process and furthermore, most of these cases are of statistical significance.



### **6.2.1. Role of the learning process organisation in stimulating participation in lifelong learning**

#### ***A. Influence of the characteristics of the learning process on the confidence of adult learners in the successful completion of their education***

At the level of *primary and middle schools* the main factor exerting influence on the confidence of adult learners in completing their education is found to be their active involvement in the learning process. It is the inclusion of this factor in the regression models together with other theoretically outstanding factors that gives significance to the models, while other factors remain insignificant. For example – the model which includes as independent alternating factors affiliation between the students (1) and their active involvement in the learning process (2), has the following statistical value [F (2, 201) = 18.86;  $p < .0001$ ; St.Beta 1 = 0.01 ( $t = 0.18$ ;  $p < .8$ ); St.Beta 2 = 0.40 ( $t = 6.13$ ;  $p < .0001$ )]. The factor „active participation in the learning process” explains over 15% of the variations in the learners' confidence and the inclusion of all remaining factors only slightly increases the explanatory power of the model (R Sq. = 0.16; R Sq. = 0.20).

The characteristics of the learning process have a comparatively weak influence on the confidence of the adult learners at the *secondary schools*. The most significant one is the influence of the creation of a friendly environment in class [F (1, 232) = 12.28;  $p < .001$ ; St.Beta = 0.22 ( $t = 3.50$ ;  $p < .001$ )]. Another significant factor is the influence of the learners' active involvement in the learning process on their confidence [F (2, 131) = 8.48,  $p < .0001$ ; St.Beta = 0.14 ( $t = 2.12$ ;  $p < .05$ )]. The remaining factors have not only insignificant influence on the learners' confidence in completion of their education but also decrease the significance of the first two factors as well as their explanatory power (R Sq. diminished from 0.06 to 0.05).

At the level of *colleges* two characteristics of the learning process appear to be positively linked with the learners' confidence in completing their education – affiliation between students [F (2, 223) = 5.96;  $p < .01$ ; St.Beta = 0.16 ( $t = 2.44$ ;  $p < .01$ )] and teacher support and treating students as individuals [F (4, 220) = 3.91;  $p < .01$ ; St.Beta = 0.19 ( $t = 2.52$ ;  $p < .005$ )].

Although these factors explain only a small part of the variations in learners' confidence – the first one a little over 2%, and together with the second one – about 5%. It should be noted that by including the other characteristics of the

learning process in the model the significance of the influence of the affiliation between students is neutralised, while that of teachers' support remains the same.

Two of the characteristics of the learning process at the *higher education institutions* affect adult learners' confidence in completing their education – affiliation between students [F (1, 231) = 13.57;  $p < .0001$ ; St.Beta = 0.24 (t = 3.68;  $p < .0001$ )] and the possibility for learners to select tasks which match their personal interests and to learn what they wanted to [F (7, 225) = 4.17;  $p < .0001$ ; St.Beta = -0.26 (t = -3.66;  $p < .0001$ )]. The explanatory power of the first factor is 5%, and the inclusion of the second one increases it up to almost 9%. It is worth paying special attention to the unexpected fact that if the students have been able to select task themselves and learn what they wanted to, this has a negative influence on their confidence in completing their education successfully. Here we should remind (see the results presented in chapter 4) that the students at higher education schools are the most critical as compared with students at lower education levels, in their assessment of the possibilities to attain their personal goals through and within the study programme.

**Summary:** The influence of the characteristics of the learning process on the confidence of adult learners in completing their education successfully is weak at all education levels.

The affiliation between students has a positive influence on the learners' confidence in completing successfully their education, at secondary schools, colleges and higher education schools.

The active inclusion of adult learners in the learning process has a significant influence on the learners' confidence in successfully completing their education at primary and secondary schools.

### ***B. Influence of the characteristics of the learning process on the problems encountered by adult learners***

Adult learners at *primary and secondary schools* declare to the highest degree that they have no problems in their studies – 55% of them do not indicate any problems at all. The problems encountered by adult learners in those schools appear to be dependent on several factors – affiliation between students; active involvement of students in the learning process; learner-centred behaviour of teachers allowing student influence in course planning decisions; good organization of the study programme. Affiliation between students is the factor which helps reducing learners' problems [F (1, 197) = 10.38;  $p < .001$ ; St.Beta = -0.22 (t = -3.22;  $p < .001$ )]. All other significant factors actually contribute to the

increase of learners' problems – students' active involvement in the learning process [F (2, 196) = 18.95;  $p < .0001$ ; St.Beta = 0.34 ( $t = 5.12$ ;  $p < .0001$ )]; learner-centred behaviour of teachers [F (3, 195) = 17.22;  $p < .0001$ ; St.Beta = 0.22 ( $t = 3.42$ ;  $p < .001$ )]; good organization of the study programme [F (6, 192) = 10.83;  $p < .0001$ ; St.Beta = 0.26 ( $t = 2.80$ ;  $p < .01$ )]. The above listed factors explain a little over 20% of the variations in the problems (R Sq. = 0.23).

None of the characteristics of the learning process at the *secondary schools* has significant influence on the problems encountered by adult learners.

None of the characteristics of the learning process at the *colleges* has significant influence on the problems encountered by adult learners.

Three of the characteristics of the learning process at the *higher education schools* display significant influence on the problems encountered by adult learners – affiliation between students [F (1, 228) = 22.82;  $p < .0001$ ; St.Beta = -0.30 ( $t = -4.78$ ;  $p < .0001$ )]; students' active involvement in the learning process [F (2, 227) = 13.84;  $p < .0001$ ; St.Beta = -0.15 ( $t = -2.12$ ;  $p < .05$ )] and task orientation [F (5, 224) = 6.94;  $p < .0001$ ; St.Beta = -0.16 ( $t = -2.27$ ;  $p < .05$ )]. The presence of these characteristics of the learning process helps in reducing problems encountered by adult learners, their explanatory power being almost 12% (R Sq. = 0,12).

**Summary:** On the whole the characteristics of the learning process do not have significant influence on the problems encountered by the learners. Outstanding is only the positive influence of the affiliation between students for reducing learners' problems, but only at the lowest and highest education levels. At the same time the institutional environment at the various education institutions and their students – specifically at the primary and the higher education schools – is revealed through the degree of influence of the characteristics of the learning process. Thus the active students' involvement in the learning process of the higher education schools and the minimization of the activities unrelated to the study programme lead to the decrease of problems encountered by the learners. And conversely – the active students' involvement in the learning process at the primary and middle schools, as well as placing them in a situation in which they can influence the learning process, actually increase the problems they have to overcome. Apparently, providing adult learners at the lower education levels with a more active role in the learning process poses in itself a problem instead of leading to a decrease of the problems. It is worth noting that the factor "learners can select tasks which match their personal interests and most of them learn what they wanted to" is not only insignificant but also increases the explanatory power of the other factors.

### ***C. Influence of the characteristics of the learning process on the satisfaction adult learners with the learning process***

At the *primary and middle schools* the main factor having a significant influence on the satisfaction of adult learners with the learning process is found to be the teachers' attitude to students, revealed in treating them as individuals and providing them support [F (4, 193) = 6.53;  $p < .0001$ ; St.Beta = 0.33 ( $t = 4.58$ ;  $p < .0001$ )]. That factor maintains its significance even after the addition of other factors. The statistical analysis reveals that two more characteristics have significant influence on the students' satisfaction with the learning process – minimizing activities unrelated to the specific learning tasks [F (5, 192) = 6.50;  $p < .0001$ ; St.Beta = 0.18 ( $t = 2.40$ ;  $p < .01$ )], as well as the possibility for students to select tasks matching their interests and to learn what they wanted to [F (7, 190) = 6.07;  $p < .0001$ ; St.Beta = 0.22 ( $t = 2.97$ ;  $p < .005$ )]. These factors explain about 15% of the variations in students' satisfaction.

A number of characteristics of the learning process at the *secondary schools* influence positively students' satisfaction with the learning process. Those are:

- affiliation between students [F (1, 233) = 40.62;  $p < .0001$ ; St.Beta = 0.38 ( $t = 6.37$ ;  $p < .0001$ )];
- students' active involvement in the learning process [F (2, 232) = 36.17;  $p < .0001$ ; St.Beta = 0.32 ( $t = 5.21$ ;  $p < .0001$ )];
- teachers' support [F (4, 230) = 21.34;  $p < .0001$ ; St.Beta = 0.19 ( $t = 3.15$ ;  $p < .005$ )];
- task orientation [F (5, 229) = 20.62;  $p < .0001$ ; St.Beta = 0.22 ( $t = 3.64$ ;  $p < .0001$ )];
- good organization of the study programme [F (6, 228) = 23.75;  $p < .0001$ ; St.Beta = 0.32 ( $t = 5.24$ ;  $p < .0001$ )].

The addition of each characteristic increases the explanatory power of the model and together they explain 38% of the variations in the learners' satisfaction. Outstanding are two characteristics: students' active involvement in the learning process and the good organization of the study programme. The first factor increases the explanatory power of the model from 15% to 24%, and the second one – from 31% to 38%.

Most of the characteristics of the learning process in the *schools above secondary education* influence positively adult learners' satisfaction with their studies. Those are:

- affiliation between students [F (1, 227) = 21.55;  $p < .0001$ ; St.Beta = 0.29 ( $t = 4.64$ ;  $p < .0001$ )];
- students' active involvement in the learning process [F (2, 226) = 30.13;  $p < .0001$ ; St.Beta = 0.37 ( $t = 5.95$ ;  $p < .0001$ )];

- teachers' support [F (4, 224) = 18.03; p < .0001; St.Beta = 0.22 (t = 3.12; p < .005)];
- task orientation [F (5, 223) = 15.63; p < .0001; St.Beta = 0.14 (t = 2.19; p < .05)];
- good organization of the study programme [F (6, 222) = 26.03; p < .0001; St.Beta = 0.50 (t = 7.62; p < .0001)].

The addition of each of these characteristics increases the explanatory power of the model. Especially significant appears to be students' active involvement in the learning process and the good organization of the study programme. The addition of the first factor increases the explanatory power of the model from 8% to 20%, and the addition of the second one - from 24% to 40%.

Most of the characteristics of the learning process at the *higher education schools* display significant influence on adult learners' satisfaction with the learning process. Those are:

- affiliation between students [F (1, 230) = 19.67; p < .0001; St.Beta = 0.28 (t = 4.44; p < .0001)];
- students' active involvement in the learning process [F (2, 229) = 44.84; p < .0001; St.Beta = 0.50 (t = 8.03; p < .0001)];
- teachers' support [F (4, 227) = 24.50; p < .0001; St.Beta = 0.17 (t = 2.56; p < .01)];
- task orientation [F (5, 226) = 21.56; p < .0001; St.Beta = 0.16 (t = 2.67; p < .005)];
- good organization of the study programme [F (6, 225) = 28.36; p < .0001; St.Beta = 0.39 (t = 6.52; p < .0001)].

The addition of each of these characteristics increases the explanatory power of the model. Outstanding is the significance of two characteristics: students' active involvement in the learning process and the good organization of the study programme. The first factor increases the explanatory power of the model from 8% to 28%, and the second one – from 32% to 43%.

It is evident that active involvement in the learning process has significant influence on learners' satisfaction. The learners are already people with well-developed personalities.

**Conclusion:** Most of the theoretically inferred characteristics of the learning process have significant influence on adult learners' satisfaction with the learning process. Two of them are significant factors for all education institutions – teachers' support and task orientation.

Primary and secondary schools emerge as a specific education environment. For adult learners there the most important thing is the support they receive from their teachers.

At all education levels above middle school the same characteristics appear to have significant influence on students' satisfaction with the learning process: affiliation between students; students' active involvement in the learning process; teachers' support; task orientation, and the good organization of the study programme. Outstanding is the positive influence of two characteristics of the learning process – students' active involvement in the learning process and the good organization of the study programme.

#### ***D. Influence of the characteristics of the learning process on adult learners' satisfaction with the result of their education***

Several characteristics of the learning process at the *primary and secondary schools* have positive influence on the satisfaction of adult learners with the results of their education. Firstly, this is their active involvement in the learning activities [F (2, 193) = 12.00;  $p < .0001$ ; St.Beta = 0.32 (t = 4.71;  $p < .0001$ )]. Students' satisfaction is dependent also on the extent to which the teacher is learner-centred and allows students to dispute his/her decisions [F (3, 192) = 11.32;  $p < .0001$ ; St.Beta = 0.20 (t = 2.99;  $p < .005$ )], and the teachers' support [F (4, 191) = 11.96;  $p < .0001$ ; St.Beta = 0.24 (t = 3.46;  $p < .001$ )]. A positive influence on the learners' satisfaction is displayed also by personal goal attainment [F (7, 188) = 8.98;  $p < .0001$ ; St.Beta = 0.23 (t = 3.21;  $p < .005$ )]. Altogether, these factors explain over 22% of the variations in adult learners' satisfaction.

Most of the characteristics of the learning process at the *secondary schools* influence positively adult learners' satisfaction with the results of their education: Those are:

- affiliation between students [F (1, 233) = 51.75;  $p < .0001$ ; St.Beta = 0.43 (t = 7.19;  $p < .0001$ )];
- students' active involvement in the learning process [F (2, 232) = 31.58;  $p < .0001$ ; St.Beta = 0.19 (t = 3.08;  $p < .005$ )];
- teachers' support [F (4, 230) = 17.60;  $p < .0001$ ; St.Beta = 0.19 (t = 3.15;  $p < .005$ )];
- good organization of the study programme [F (6, 228) = 12.83;  $p < .0001$ ; St.Beta = 0.13 (t = 1.93;  $p < .05$ )].

The addition of each of these characteristics increases the explanatory power of the model altogether they explain 23% of the variations of learners' satisfaction with the results of their education.

Almost all characteristics of the learning process at the *schools above secondary education* have positive influence on adult learners' satisfaction with the results of their education. Those are:

- affiliation between students [F (1, 226) = 7.16;  $p < .01$ ; St.Beta = 0.18 (t = 2.68;  $p < .01$ )];
- students' active involvement in the learning process [F (2, 225) = 16.56;  $p < .0001$ ; St.Beta = 0.33 (t = 4.90;  $p < .0001$ )];
- teachers' support [F (4, 223) = 9.73;  $p < .0001$ ; St.Beta = 0.14 (t = 1.94;  $p < .05$ )];
- task orientation [F (5, 222) = 9.33;  $p < .0001$ ; St.Beta = 0.17 (t = 2.59;  $p < .01$ )];
- good organization of the study programme [F (6, 221) = 12.23;  $p < .0001$ ; St.Beta = 0.37 (t = 4.72;  $p < .0001$ )];
- personal goal attainment [F (7, 220) = 11.48;  $p < .0001$ ; St.Beta = 0.16 (t = 2.35;  $p < .05$ )].

Each of these characteristics increases the explanatory power of the model, although as a whole they explain only a quarter of the variations in the learners' satisfaction. A significant factor appears also to be the good organization of the study programme. The addition of this factor increases the explanatory power of the model from 16% to 23%.

Some of the characteristics of the learning process at the *higher education schools* have significant influence on adult learners' satisfaction with the results of their education. Those are:

- affiliation between students [F (1, 230) = 24.60,  $p < .0001$ ; St.Beta = 0.31 (t = 4.96;  $p < .0001$ )];
- students' active involvement in the learning process [F (2, 229) = 25.56;  $p < .0001$ ; St.Beta = 0.34 (t = 5.02;  $p < .0001$ )];
- task orientation [F (5, 226) = 13.08;  $p < .0001$ ; St.Beta = 0.20 (t = 3.04;  $p < .001$ )];
- good organization of the study programme [F (6, 225) = 13.13;  $p < .0001$ ; St.Beta = 0.22 (t = 3.26;  $p < .001$ )].

The addition of each of these characteristics increases the explanatory power of the model, although they explain only a quarter of the variations in the learners' satisfaction. Students' active involvement in the learning process and the good organization of the study programme also appear to be significant factors. The

addition of the first factor increases the explanatory power of the model from 9% to 18%, and the second one from 20% to 24%.

**Summary:** Most of the theoretically derived characteristics of the education process have significant influence on the adult learners' satisfaction with the results of their education. At the different education levels students give the leading role to different characteristics of the learning process. Thus for adult learners at the primary and middle schools it is of special importance their active involvement in the learning process; teachers support and the availability of possibilities for students to influence the decisions on learning activities and to learn what they wanted to.

Three characteristics have significant influence on learners' satisfaction at all education levels: affiliation between students; active involvement in the learning process; and good organization of the study programme. Teachers' support is important for students' satisfaction at the secondary schools and colleges, and task orientation has a positive influence on the learners' satisfaction at these levels of education.

### **6.2.2. Role of the learning process organisation in reducing inequalities in participation**

A regression analysis was performed on the whole entity of adult learners using as independent alternating factors only those ones related to personal data and those characteristics of the learning process, which the previous analysis has found to be significant<sup>3</sup>. The results demonstrate that significant influence on the learners' confidence is displayed by the following alternating factors: sex (1), teachers' support (2), mother's education (3), affiliation between students (4) and the good organization of the study programme (5) [F (14, 615) = 3.38;  $p < .0001$ ; St.Beta 1 = 0.34 ( $t = 5.02$ ;  $p < .0001$ ); St.Beta 2 = -0.15 ( $t = -3.43$ ;  $p < .001$ ); St.Beta 3 = 0.12 ( $t = 1.92$ ;  $p < .05$ ); St.Beta 4 = 0.09 ( $t = 2.16$ ;  $p < .05$ ); St.Beta 5 = 0.12 ( $t = 2.32$ ;  $p < .05$ )].

Satisfaction with the learning process is significantly influenced by following factors: sex (1), active involvement in the learning process (2), teachers' support and treatment of students as individuals (3) and the good organization of the learning process (4) [F (14, 612) = 25.60;  $p < .0001$ ; St.Beta 1 = 0.10 ( $t = 2.91$ ;  $p < .005$ ); St.Beta 2 = 0.11 ( $t = 2.80$ ;  $p < .005$ ); St.Beta 3 = 0.19 ( $t = 4.98$ ;  $p < .0001$ ); St.Beta 4 = 0.38 ( $t = 9.39$ ;  $p < .0001$ )]. That model explains 36% of the variations in learners' satisfaction with the learning process.

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<sup>3</sup> The following alternating factors were included: Cultur\_i, Friend\_i, Social\_i, Employ\_i, Gender, Father's education, Age, Family\_i, Mother's education, Active\_i, Tasko\_i, Affili\_i, Tsuppo\_i, Clear\_i Clear, Well organised activities



Due to the fact that most of the personal alternating factors proved to be insignificant, an additional regression analysis was performed, including only sex and the mother's education. The results display that still another characteristic of the learning process has influence on the learners' confidence on completing their education – the active involvement of students in it [F (7, 881) = 12.86;  $p < .0001$ ; St.Beta = 0.14 ( $t = 3.56$ ;  $p < .0001$ )].

The additional analysis reflected the significant role of most of the characteristics of the learning process on learners' satisfaction. Considerable influence is displayed by the following factors: affiliation between students (1), active involvement in the learning process (2), teachers' support and treatment of students as individuals (3) and the good organization of the study programme (4) [F (7, 879) = 65.72;  $p < .0001$ ; St.Beta 1 = 0.09 ( $t = 3.04$ ;  $p < .005$ ); St.Beta 2 = 0.10 ( $t = 2.81$ ;  $p < .005$ ); St.Beta 3 = 0.22 ( $t = 6.71$ ;  $p < .0001$ ); St.Beta 4 = 0.34 ( $t = 9.83$ ;  $p < .0001$ )]. This model explains a little over 34% of the variations in learners' satisfaction with the learning process.

According to the results of the additional regression analysis adult learners' satisfaction is influenced by the following characteristics of the learning process: affiliation between students (1), students' active involvement in the learning process (2), teachers' support and treatment of students as individuals (3), task orientation (4) and the good organization of the study programme (5) [F (7, 877) = 32.98;  $p < .0001$ ; St.Beta 1 = 0.12 ( $t = 3.66$ ;  $p < .0001$ ); St.Beta 2 = 0.14 ( $t = 3.84$ ;  $p < .0001$ ); St.Beta 3 = 0.09 ( $t = 2.52$ ;  $p < .01$ ); St.Beta 4 = 0.09 ( $t = 2.67$ ;  $p < .01$ ); St.Beta 5 = 0.21 ( $t = 5.66$ ;  $p < .0001$ )]. These alternating factors explain a little more than 20% of the variations in learners' satisfaction with the learning process, with the outstanding positive role of the good organization of the learning process.

### **6.3. General conclusions and discussion**

The results of the Bulgarian case study show that as a whole the theoretically derived *institutional characteristics of the education institutions* have weak, controversial and differentiated influence on the experience and perceptions of adult learners in them. None of the institutional characteristics has significant influence on the dimensions introduced for adults' experiences. In a number of cases – even at a specific education level – none of the analysed institutional characteristics was found to have significant influence on the particular dimensions of the adult learners' experiences. At the same time the influence of the particular institutional characteristics on adult learners' experiences is different at the different education levels. A logical conclusion is that in its

generalised formulation (referring to all education levels and all derived institutional characteristics and personal experiences) *the hypothesis constructed in the theoretical model was not verified.*

As the most significant factor stimulating positive adult learners' experiences stands out the LLL policy index, i.e. the schools' commitment to life long learning, increasing teachers' qualifications and control on the quality of education. This factor has strong positive influence on learners' confidence in completing successfully their education, on the satisfaction of students at secondary schools with the learning process, and on the satisfaction of students at colleges from the results of their education. At the level of primary and middle schools however the greater commitment of the school to improving teachers' qualification and the quality of education correlates with the increase of the number of problems encountered by adult learners.

The results reveal two distinct types of education institutions – primary and middle schools and the schools above secondary education. The specifics of the first group stems from the fact that it includes education institutions at the prisons, which teach people with a specific personal history.

Of particular interest are the schools above secondary education, with respect to which some unexpected results were obtained. It appears that the implementation of active policies for attracting underprivileged groups do not increase but rather decrease students' satisfaction with the learning process. At the same time, both the establishment of more open access policies and the creation of more flexible forms of education correlate negatively with students' confidence in completing successfully their education, i.e. they decrease it. At this stage of the study we can only assume that the results were affected by the strong differences in the types of schools included in the group – on one hand, the colleges, which are part of the higher education system and on the other hand, the vocational schools, which are very close in characteristics to the secondary education.

We believe that it is not so difficult to explain the weak and controversial influence of institutional characteristics on adult learners' experiences, considering that indicators for those were personal experiences related to the learning process. The characteristics of institutional school policies however are distant and only indirectly linked with the learning process itself. Factors such as more open access policies, the provision of various services in support of students and the presence of particular initiatives for attracting people from disadvantaged groups affect the entry point of the learning process rather than its development, and thus it is more probable that they would influence other personality characteristics such as learners' education plans.

For the Bulgarian case study in particular the results obtained can be due to the fact that on the whole, as can be observed from the data in chapter 4, the indicators for Bulgarian schools with respect to the constructed characteristics, are not very high, in being generally below the average level of the different scales.

According to the results of the study *the way in which the learning process is organized and conducted* has great importance for the adult learners' experiences at the formal education institutions. All theoretically defined characteristics of the learning process are real determinants of the adult learners' experiences. However, they have differentiated influence on the learners at the various education levels. At the same time a differentiated influence of the way of organizing the learning process on the different personal experiences is observed (in particular, on their confidence in completing successfully the study programme on one hand, and on their satisfaction with the learning process and the results of their education on the other hand). Based on this, we can conclude that in its generalized formulation (referring simultaneously to all education levels and all defined dimensions of personal experiences) *the hypothesis constructed in the theoretical model was only partially verified*.

The analysis shows that three of the defined characteristics of the learning process have positive influence on the learners at all education levels, stimulating their satisfaction with the learning process. Adult learners placed in an environment where students are actively involved in the learning process, where teachers provide them support and treat them as individuals and where there is strong task orientation show higher satisfaction with the learning process.

Only one characteristic of the learning process – the active involvement of students in the learning process – has positive influence at all types of education institutions on adult learners' satisfaction with the results of their education.

The influence of the characteristics of the learning process on the learners' confidence in successfully completing their education is revealed in a differentiated way at the various education levels. Outstanding is the positive influence of the affiliation between students, observed at the secondary schools, colleges and higher education schools.

The results obtained reveal that adult learners cannot be perceived as a homogeneous group. For this reason the same characteristics have different influence on adult learners at the different education levels.

In view of our results the role of formal education in *reducing initial inequalities in experience and perspectives* between adults with different educational background is rather limited. In this sense they confirm *alternative hypotheses H16' and H17'*<sup>4</sup>, formulated in the theoretical model that schools are not capable on their own to compensate for inequalities in the participation of adults with different personal history in the various forms of life long learning. Still, we can outline several directions in which positive developments can contribute to stimulating wider participation of disadvantaged groups in the life long learning. In the first place, this is the active commitment of formal education institutions to life long learning and the undertaking of initiatives for improving teachers' qualification and for control over the quality of education. Secondly, positive influence will be exerted by the creation of an educational environment which is well organized and where teachers treat adult learners as individuals, provide them support and at the same time actively involve them in the learning process.

Our study yielded multiple verification of the key role of teachers, already proved in studies of students to the age of 18, for the way of conducting and the effectiveness of the learning process. It appears that for adult learners as well the teacher is the factor, which to a greatest extent can influence positively their experiences and perceptions. Adult learners expect from teachers two hardly compatible attitudes. On one hand, they are students and despite being adults, they expect support and help from their teachers. On the other hand however, exactly because they are adults, they place higher importance on teachers treating them as individuals, which is expressed in their active involvement of the learning process.

The Bulgarian case study allows us to speculate and to derive several *more generalized conclusions and theoretical inferences*.

It appears that the registered weak effect of schools' institutional policies on adult learners' experiences can be viewed in a *more general theoretical sense*. This refers to the thesis that the effect of the education institution on the individuals it teaches cannot be limited only to its socializing effect. According to John Meyer schools “directly confer success and failure in society quite apart from any socializing effects” and “people in modern societies are allocated to adult roles on the basis of years and types of education, apart from anything they have learned in school” (Meyer 1977: 55-56, 59). The functioning of the school

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<sup>4</sup> “The characteristics of the *educational institution alone* are highly unlikely to compensate nationwide for initial inequalities in experiences and perspectives between adults with a different educational background”; “The characteristics of the *learning process alone* are highly unlikely to compensate nationwide for initial inequalities in experiences and perspectives between adults with a different educational background”.

in modern societies is not only as a socializer, but also as a selector, sorter, and allocator entails that it should be perceived and assessed as important on its own, regardless of its particular influence on the experiences, knowledge and skills of learners.

The search for explanation of the result obtained should take into account the changes in the value attitudes to education, taking place in modern societies.

We find reason in Usher's thesis that education theories do not manage to outline the place and importance of consumption in modern societies. We refer not so much to the consumption of goods, but more about signs and meanings, and to the rethinking of the functioning of the objects of consumption as classification systems, as markers of difference, which distinguish individuals from one another. Consumption culture is an economy of signs, in which individuals exchange messages about their social status (Usher 2001: 176). In this sense the level of education attained is a marker of the degree of the individual's self-development and of his/her identity, which means also being a marker of his/her difference from other individuals (Usher 2001: 177). Thus the individual assesses his/her education not only from the point of view of the attained professional and social knowledge and skills, but also with regard to its sign value. The higher an education level is, the more it can function to identify its owner in a certain way and to differentiate him/her from the others. Viewed from his perspective, the mass strive for higher education becomes comprehensible, as well as the general strive for increasing one's education level – despite the existing problems for the professional realization in the discipline obtained. Certificates for the education programmes completed are specific signs, and in particular, sign which can talk by themselves, without being necessary to verify what their real value is.

In view of the *development and selection of policies* for active involvement and keeping adult learners in formal education institutions our study poses the conclusion that to yield results these policies should be differentiated with regard to the various education levels and at the same time should take account of the specific personal characteristics of adult learners. Foremost it should be noted that similar institutional policies and practices of organizing the learning process can have different significance at the different types of schools. At the same time, we should not ignore the well known fact from the social psychology and psychology literature that with respect to their main personality traits, adult learners are different from learners to the age of 18. In our case it is essential to have this in mind since adult learners are people with well developed I-concept and they all, regardless of the education level they are included in, deem it very important to be treated as individuals.

Our results clearly define the *need of additional studies* on the role of formal education institutions for the implementation of various forms of life long learning. The data obtained, revealing weak and controversial influence on a number of characteristics of schools' the institutional policies on adult learners' experiences should be subjected to additional verifications, which will allow us to fully reflect on and explain them. Special attention should be further paid to a study of the possibilities of education institutions to compensate for the existing education inequalities and to neutralize their negative impact on adults' education plans and inclusion in various forms of education. In this respect we consider it appropriate to focus our attention on adults with lower than secondary education and to trace their personal paths, including the use of qualitative methods of investigation.

## References

### In Bulgarian:

- Бояджиева, П., Е. Герганов, М. Дилова, Е. Паспаланова, К. Петкова** (1994) *Образованието извън училищните стени*. София: Гал-Ико. [Boyadjieva, P., E. Gerganov, M. Dilova, E. Paspalanova, K. Petkova (1994) *Education Outside the School Doors*. Sofia: Gal-Iko.]
- Дни на ученето през целия живот, България 2001* (2002) София: Институт за международно сътрудничество на сдружението на германските народни университети. [*Lifelong Learning Days, Bulgaria 2001* (2002) Sofia: ПЗ/DVV.]
- Дни на ученето през целия живот, България 2002* (2003). София: Институт за международно сътрудничество на сдружението на германските народни университети. [*Lifelong Learning Days, Bulgaria 2002* (2003) Sofia: ПЗ/DVV.]
- Дни на ученето през целия живот, България 2003* (2004) София: Институт за международно сътрудничество на сдружението на германските народни университети. [*Lifelong Learning Days, Bulgaria 2003* (2004) Sofia: ПЗ/DVV.]
- Дни на ученето през целия живот, България 2004* (2005) София: Институт за международно сътрудничество на сдружението на германските народни университети. [*Lifelong Learning Days, Bulgaria 2004* (2005) Sofia: ПЗ/DVV.]
- Закон за висшето образование* (2004) София: Държавен вестник, № 48/04.06.2004. [*Law of Higher Education* (2004) Sofia: State Gazette N 48/04.06.2004.]
- Закон за интеграция на хората с увреждания* (2004) София: Държавен вестник, № 81/17.07.2004. [*Law of Integration of Disabled People* (2004) Sofia: State Gazette N 81/17.07.2004.]
- Закон за народната просвета* (1991) София: Държавен вестник, № 86/18.10.1991, последна промяна 2004. [*Law of National Education* (1991) Sofia: State Gazette N 86/18.10.1991, last amendment 2004.]
- Закон за насърчаване на заетостта* (2001) София: Държавен вестник, № 112/29.12.2001. [*Employment Promotion Law* (2001) Sofia: State Gazette N 112/29.12.2001.]
- Закон за професионалното образование и обучение* (1999) София: Държавен вестник, № 68/30.07.1999. [*Law of Vocational Education and Training* (1999) Sofia: State Gazette N 68/30.07.1999.]
- Национален план за борба с бедността и социалната изолация за 2005-2006* (2005). [*National Action Plan for Combating Poverty and Social Exclusion for 2005-2006* (2005).] [www.mlsp.government.bg](http://www.mlsp.government.bg)

- Национален план за борба с бедността и социалната изолация за 2004 (2004). [*National Action Plan for Combating Poverty and Social Exclusion for 2004* (2004).] [www.mlsp.government.bg](http://www.mlsp.government.bg)
- Национален план за действие по заетостта през 2006 (2006). [*National Action Plan for Promoting Employability for 2006* (2006).] [www.mlsp.government.bg](http://www.mlsp.government.bg)
- Национален план за действие за насърчаване на равнопоставеността на жените и мъжете за 2005. [*National Action Plan for Equal Opportunities for Women and Men for 2005*.] [www.mlsp.government.bg](http://www.mlsp.government.bg)
- Национален план за интегриране на деца със специални образователни потребности и/или с хронични заболявания в системата на народната просвета (2004). [*National Plan for Integrating Children with Special Educational Needs* (2004).] [www.minedu.government.bg](http://www.minedu.government.bg)
- Национална стратегия за равните възможности за хората с увреждания (2005). [*National Strategy for Equal Opportunities for Disabled People* (2005).] [www.mlsp.government.bg](http://www.mlsp.government.bg)
- Национална програма за ограмотяване и квалификация на роми. [*National Programme for Roma People Qualification and Literacy*.] [www.mlsp.government.bg](http://www.mlsp.government.bg)
- Национална програма за развитие на училищното образование и предучилищното възпитание и подготовка 2006-2015. (2006). [*National Strategy for School and Pre-School Education and Training 2006-2015* (2006).] [www.minedu.government.bg](http://www.minedu.government.bg)
- Национална стратегия за борба с бедността и социалната изолация 2003-2007 (2003). [*National Strategy for Combating Poverty and Social Exclusion 2003-2007* (2003).] [www.mlsp.government.bg](http://www.mlsp.government.bg)
- Национална стратегия за въвеждане на информационните и комуникационни технологии в българските училища (2005) София: Държавен вестник, № 21/2005. [*National Strategy on Introducing ICT in Bulgarian Schools* (2005) Sofia: State Gazette N 21/2005.]
- Национална стратегия за продължаващо професионално обучение за периода 2005-2010 (2004) Приета с Решение № 38.1 на Министерския съвет от 14.10.2004. [*National Strategy on Further Vocational Training 2005-2010* (2004) Accepted by Decision N 38.1 of the Council of Ministers on 14.10.2004.]
- Пакт за икономическо и социално развитие на Република България до 2009 г.
- План за действие за 2005 г. в изпълнение на Националната стратегия за продължаващо професионално обучение за периода 2005-2010 (2005) [*Action Plan for Implementation of National Strategy on Further Vocational Training 2005-2010* (2005).] [www.minedu.government.bg](http://www.minedu.government.bg)



План за заетост на хората с увреждания през 2003-2005. [*Employment Action Plan for Disabled People – 2003-2005.*] [www.mlsp.government.bg](http://www.mlsp.government.bg)

Рамкова програма за равнопоставена интеграция на ромите в българското общество (1999). [*Framework Programme for Equal Integration of the Roma People in Bulgarian Society (1999).*] [www.mlsp.government.bg](http://www.mlsp.government.bg)

Стратегия за образователна интеграция на децата и учениците от етническите малцинства (2004). [*Strategy for Educational Integration of Children and Pupils from the Ethnic Minorities (2004).*] [www.minedu.government.bg](http://www.minedu.government.bg)

Стратегия по заетостта 2004-2010 (2003). [*Employment Strategy 2004-2010 (2003).*] [www.mlsp.government.bg](http://www.mlsp.government.bg)

### **In English:**

Eurostat. LFS (2003) Ad-hoc Module on LLL.

Eurostat. CVTS2 (1999) & CVTS3 (2005).

*Progress towards the Lisbon Objectives in Education and Training. Indicators and Benchmarks (2008)*

[http://ec.europa.eu/education/policies/2010/doc/progress08/report\\_en.pdf](http://ec.europa.eu/education/policies/2010/doc/progress08/report_en.pdf)

*Commission Staff Working Paper: Progress towards the Lisbon Objectives in Education and Training (2005)* Brussels: Commission of the EC.

*Education and Training 2010. Bulgarian Contributions to 2006. Joint Report of the Council and the Commission.*

**Gerganov, E., P. Boyadjieva, E. Paspalanova** (2001) The Social Attitudes of the Bulgarians towards Continuing Education on the Eve of the 21 Century. *Adult Education and Development*, 56: 187-207.

**Meyer, J.W.** (1977) The Effects of Education as an Institution. *American Journal of Sociology*, Vol. 83, N. 1: 55-77.

*Modernization of Vocational Education and Training in Bulgaria.* [www.eric.ed.gov](http://www.eric.ed.gov)

*Reviews of National Policies for Education Bulgaria: Vocational education and training.* (2004) Source OECD Transition Economies Volume, Number 5, February 2004, pp. 145-174 (30). [www.ingentaconnect.com/content/oecd](http://www.ingentaconnect.com/content/oecd)

*Second Report on the Progress made by the Republic of Bulgaria on the Joint Assessment of Employment Priorities (2005)* Sofia: Ministry of Labour and Social Policy.

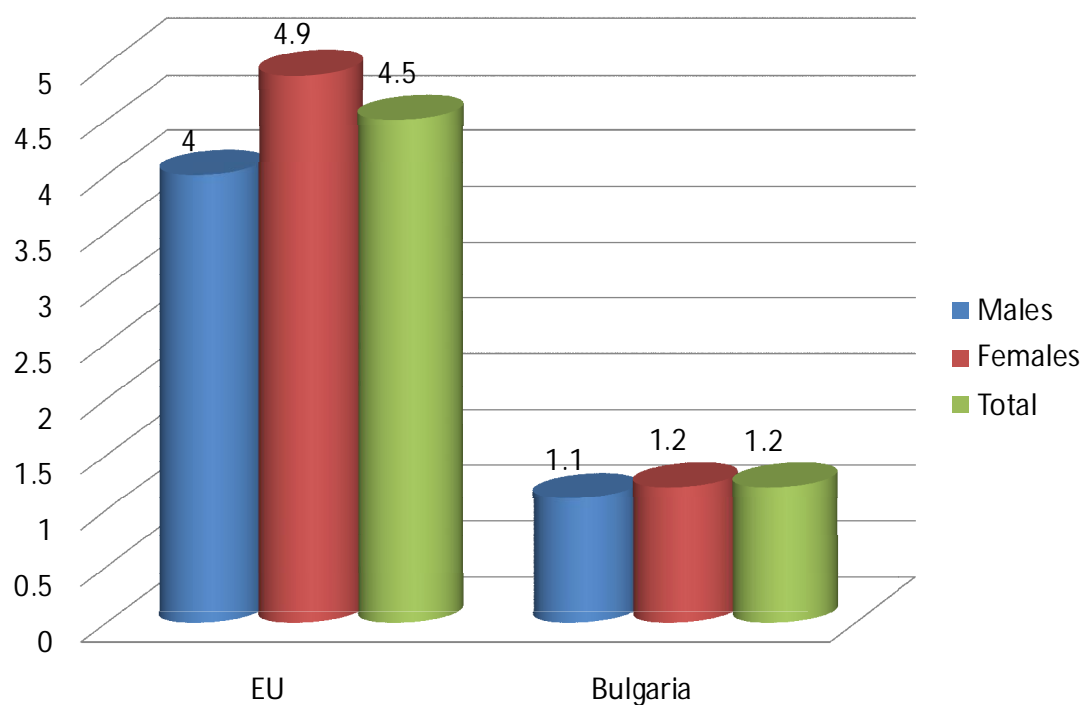
*Second Report on the Progress Made by the Republic of Bulgaria on the Joint Assessment of Employment Priorities (2005)* [www.mlsp.government.bg](http://www.mlsp.government.bg).

**Usher, R.** (2001) Lifelong Learning in the Postmodern. In: Aspin, D., J. Chapman, M. Hatton and Y. Sawano (Eds.) *International Handbook of Lifelong Learning*. Kluwer and Academic Publishers, pp. 165-182.

## ANNEX 1.

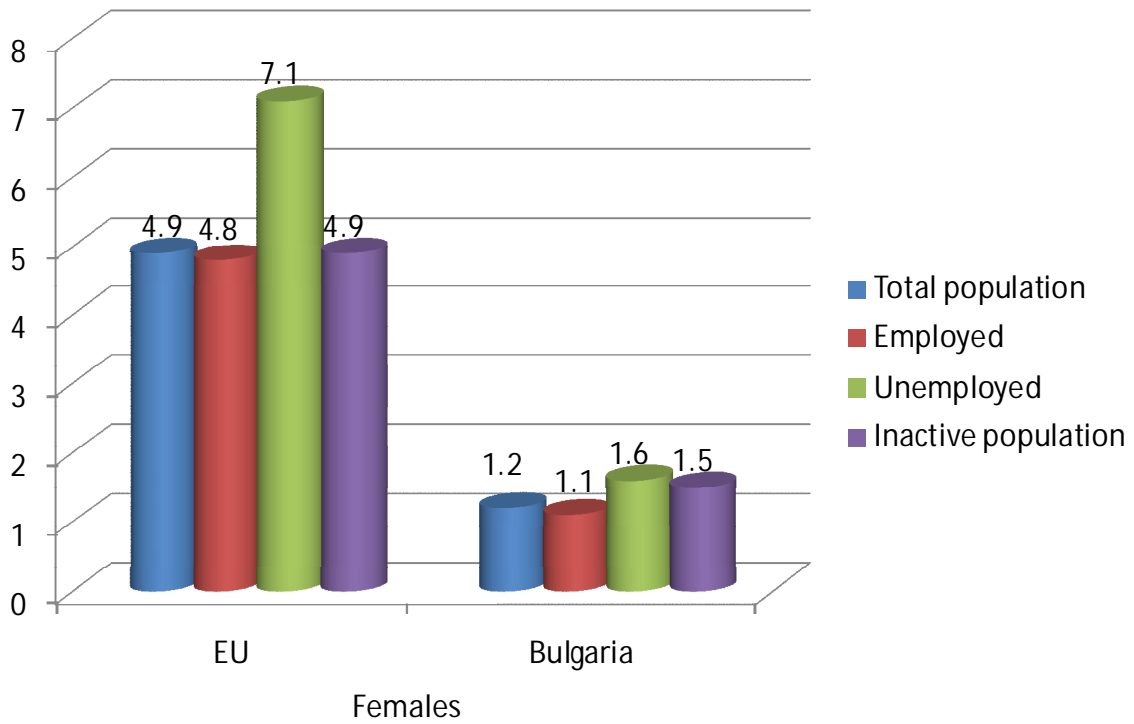
### Participation of Bulgarian population aged 25-64 in formal education

Note: The data for LFS (1999) refer to EU-15 and for CVTS 2 (2003) and CVTS 3 (2005) – for EU-25.

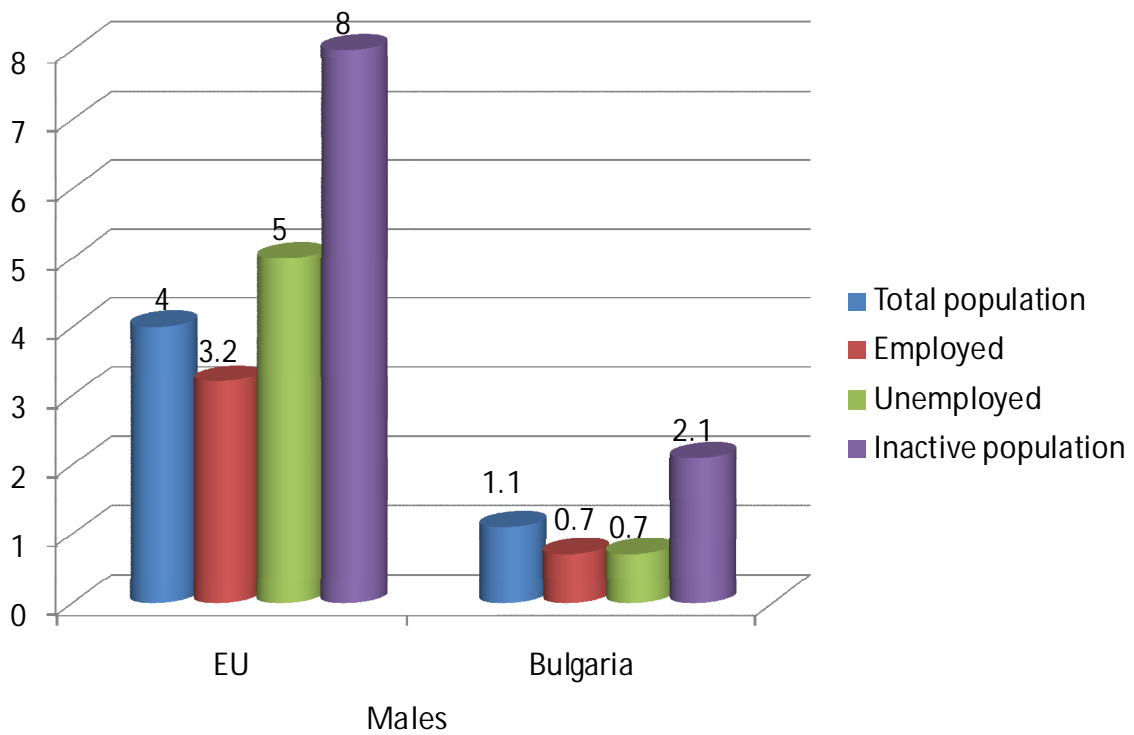


**Figure 1:** *Percentage of participants in formal education by sex*

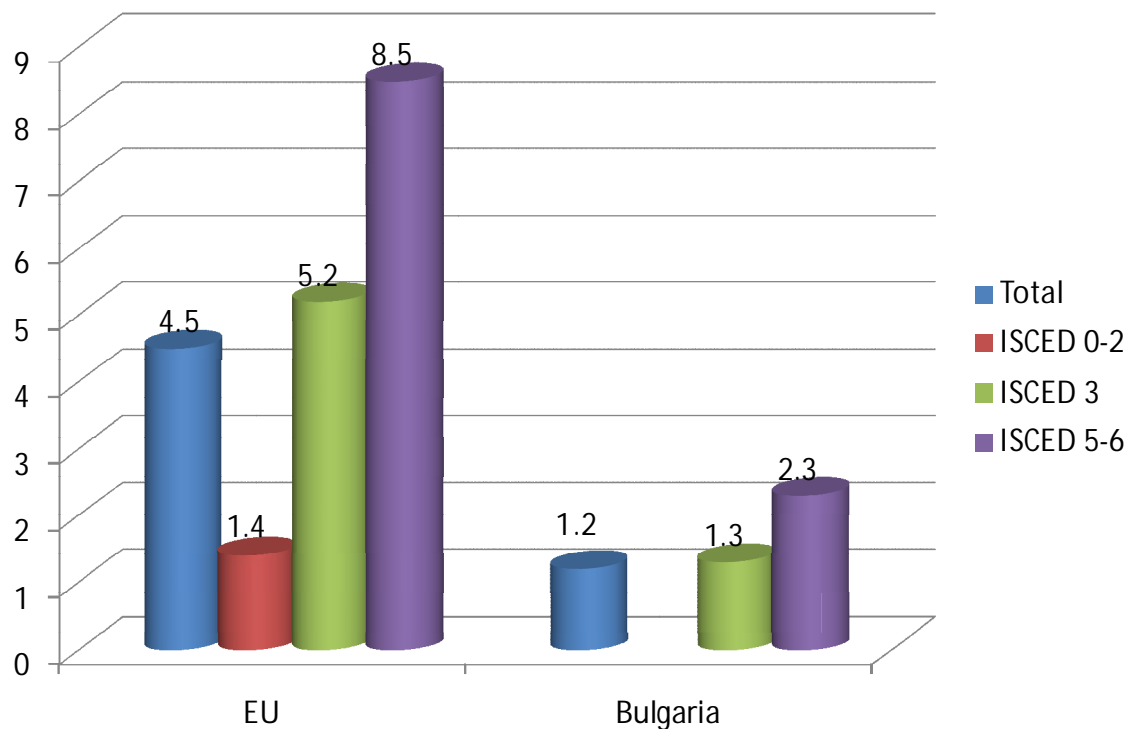
Source: Eurostat LFS 2003.



**Figure 2:** *Percentage of female participants in formal education by working status*  
 Source: Eurostat LFS 2003.

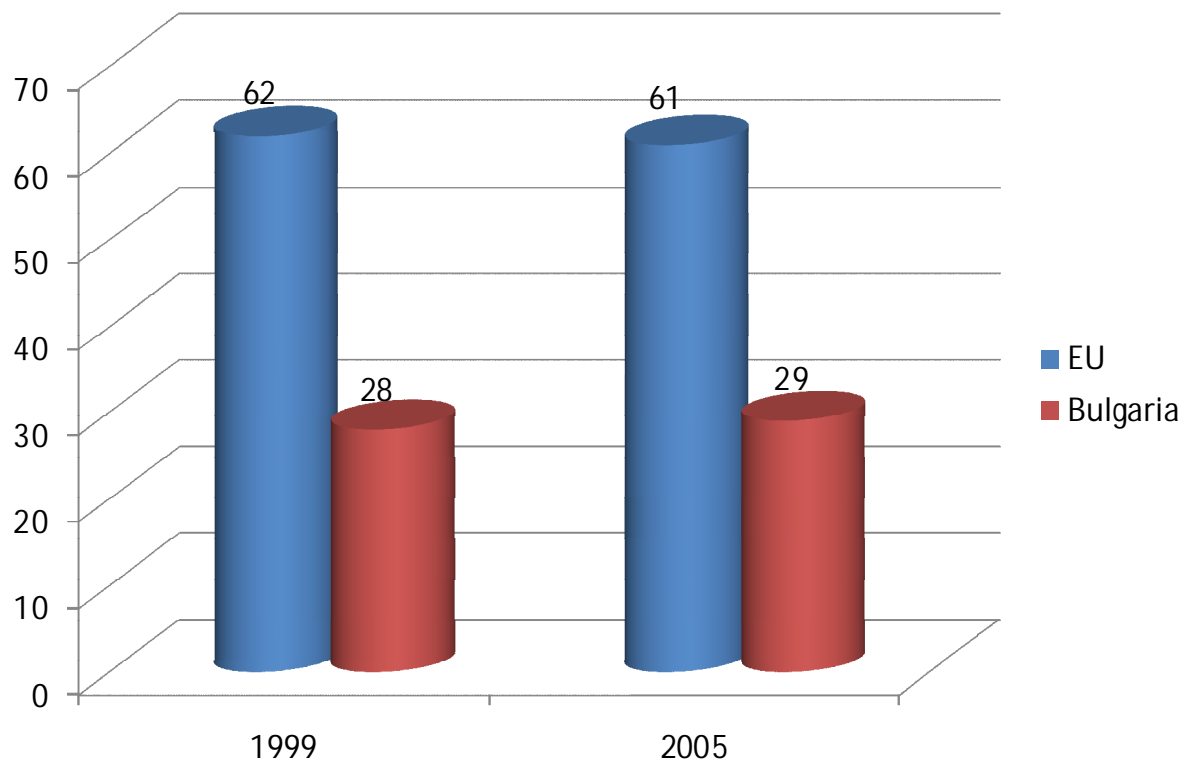


**Figure 3:** *Percentage of male participants in formal education by working status*  
 Source: Eurostat LFS 2003.



**Figure 4:** *Percentage of participants in formal education by educational attainment*

Source: Eurostat LFS 2003.



**Figure 5:** *Training enterprises as percentage of all enterprises*

Source: Eurostat CVTS 2, CVTS 3.

## ANNEX 2.

### Educational institutions, courses and participants

INSTITUTIONS	COURSES	SELEC- TED STU- DENTS	PARTICI- -PATING STU- DENTS
Vocational School at Stara Zagora Prison	Primary	90	83
	Basic	30	27
	Vocational	15	14
Evening Vocational School at Sliven Prison	Primary	30	22
	Basic	20	18
	Vocational	20	15
Evening Vocational School at Lovetch Prison	Primary	20	18
	Basic	20	20
	Vocational	5	5
High School "St. St. Cyril and Methodius" at the Reformatory, Boichinovci	Primary	30	28
	Basic	25	21
School at Sofia Prison – Prison Hostel "Kazichene"	Basic	20	16
4 Evening School "Priest Paisii"-Sofia	Secondary	30	42
5 Evening School "Penyo Penev"-Sofia	Secondary	12	11
Evening School "Hristo Smirnenski"-Plovdiv	Secondary	30	19
Evening School "Dobri Voinikov"-Varna	Secondary	25	25
Evening School "Zahari Stoyanov"-Burgas	Secondary	20	20
High School - Glodjevo	Secondary	10	10
Evening School "Nikola Yonkov Vaptzarov"-Pleven	Secondary	10	10
High School "Hadji Mina Pashov"- Sliven	Secondary	10	15
Evening School "Zahari Stoyanov"- Stara Zagora	Secondary	15	11
Evening School "Hristo Smirnenski"- Shoumen	Secondary	10	10
High School "Petko Rachov Slaveikov"- Dobrich	Secondary	10	10
Evening School "Geo Milev"- Dimitrovgrad	Secondary	10	10
Evening School "Efrem Karanov"- Kustendil	Secondary	8	8
High School "Konstantin Fotinov"- Samokov	Secondary	14	3
Evening School "Dimcho Debeljanov" - Dupnitsa	Secondary	10	NR
Vocational School for Textiles - Rousse	Vocational	10	10
Vocational School for Transport and Light Industry –Levski	Vocational	10	10
Vocational School in Agriculture - Tchomakovtzi	Vocational	10	10

Private College “Business and Finances”-Sofia	Business Economics	5 5	5 6
Private College for Tourism “St. Mina”-Sofia	Tourism	13	10
Private College “Business-College”-Sofia	Business Tourism	6 4	7 3
Private Business University “Eurostandart”-Sofia	Marketing Accounting Economics Public administration	10 20 8 7	6 20 5 5
Private College “Delta”-Sofia	Tourism Business Arts	10 5 5	5 1 3
Private College for Fashion Design “Ariadna”-Sofia	Marketing Arts	3 2	6 4
Private College “Adam Smith”-Sofia	Economics	17	16
Private University “Art-College” - Sofia	Arts Business	8 7	8 2
Private College “IkomIntelekt” - Sofia	Computer use Tourism Business Foreign languages	3 5 5 3	1 2 4 1
Private College for Transport - Sofia	Transport	20	NR
Private College “Delta” - Plovdiv	Tourism Computer use Arts Services	5 4 4 5	5 3 2 4
Private College “Omega” - Plovdiv	Services	10	NR
European College for Economics and Management - Plovdiv	Public administration Economics Accounting Marketing	4 4 4 4	4 2 1 1
College of Medicine - Varna	Medicine	10	15
College of Tourism – Burgas	Tourism	12	15
Private College for Economics – Veliko Turnovo	Economics	10	NR
College of Pedagogy - Pleven, Local center of “St. Curil and St. Methodius” University of Veliko Tarnovo	Pedagogy	5	5
College of Medicine - Pleven	Medicine	5	5
College of Medicine - Sliven	Medicine	20	18
Technical University - College Sliven	Technical education	10	12
Technical University - College Blagoevgrad	Technical education Computer use	5 5	5 5
Bulgarian-German Center for Vocational Education - Pazardjik	Accounting Public administration Computer use Business	5 5 5 5	11 2 6 5

Center for Vocational Education at European College for Economics and Management - Plovdiv	Accounting	5	5
Sofia University St. Kliment Ohridski	Pedagogy Philosophy Public administration Computer science Tourism	12 (total)	1 1 1 3 1
University of National and World Economy – Sofia	Sociology Public administration Economics International trade Marketing Business Accounting Law Computer science	29 (total)	10 5 5 5 2 1 10 1 1
New Bulgarian University	Psychology Mass communication Business Computer science	29 (total)	3 3 2 3
Plovdiv University “Paisii Hilendarski”	Pedagogy Philosophy Psychology Bulgarian philology Foreign languages Sociology Public relations Public administration Economics International trade Marketing Accounting Law	21 (total)	2 1 1 1 3 1 1 4 1 1 1 4 1
Rousse University “Angel Kantchev”	Foreign languages Computer science Energetic Agronomics	17 (total)	1 8 4 2

South-West University “Neofit Rilski”- Blagoevgrad	Pedagogy History Bulgarian philology Foreign languages Public administration International trade Accounting Law Physics Chemistry Mathematics Computer science Tourism	27 (total)	3 3 1 4 3 2 1 1 2 1 4 2 2
“Konstantin Preslavski” University - Shoumen	History Bulgarian philology Foreign languages Economics Marketing Computer science	33 (total)	4 10 1 4 6 8
“St. Curil and St. Methodius” University of Veliko Tarnovo	History Foreign languages International trade	20 (total)	3 17 1
Technical University - Sofia	Computer science Electronics Automatics	17 (total)	7 6 4
University of Mining and Geology “St. Ivan Rilski” - Sofia	Mining engineering	18 (total)	18
University of Agriculture – Plovdiv	Environmental science Agronomics	7 (total)	1 3
Technical University - Varna	Environmental science Computer science Engineering Electronics Energetic	15 (total)	1 1 5 7 1
Technical University - Varna, Local Center for Distance Education	Politolgy Public administration Economics Accounting	20 (total)	1 5 1 6
Trakia University – Stara Zagora	Environmental science Computer science Veterinary medicine	10 (total)	6 1 3
Higher School of Civil Engineering “Lyuben Karavelov” - Sofia	Computer science Engineering	5 (total)	1 2
		<b>1181</b>	<b>1030</b>



## Annex 3.

**Table 1. Attitude towards LLL index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Attitude towards LLL index							Total
	-3.00	-2.00	-1.00	.00	1.00	2.00	3.00	
ISCED 1+2	2 .9%	11 4.8%	31 13.6%	25 11.0%	57 25.0%	30 13.2%	72 31.6%	228 100.0%
ISCED 3	1 .4%	1 .4%	14 5.5%	16 6.3%	67 26.4%	47 18.5%	108 42.5%	254 100.0%
ISCED 4	0 .0%	1 .4%	6 2.5%	20 8.2%	32 13.2%	48 19.8%	136 56.0%	243 100.0%
ISCED 5+6	1 .4%	6 2.4%	23 9.1%	19 7.5%	44 17.5%	39 15.5%	120 47.6%	252 100.0%
Total	4 .4%	19 1.9%	74 7.6%	80 8.2%	200 20.5%	164 16.8%	436 44.6%	977 100.0%

**Table 1.1. Enjoyment of learning index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Enjoyment of learning index					Total
	-2.00	-1.00	.00	1.00	2.00	
ISCED 1+2	11 4.7%	15 6.4%	52 22.2%	25 10.7%	131 56.0%	234 100.0%
ISCED 3	7 2.7%	7 2.7%	40 15.3%	41 15.7%	166 63.6%	261 100.0%
ISCED 4	0 .0%	4 1.6%	19 7.8%	28 11.5%	192 79.0%	243 100.0%
ISCED 5+6	2 .8%	13 5.1%	41 16.2%	61 24.1%	136 53.8%	253 100.0%
Total	20 2.0%	39 3.9%	152 15.3%	155 15.6%	625 63.1%	991 100.0%

**Table 1.2. Overall LLL attitude index by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

	Overall LLL attitude index																		Total
	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
ISCED 1+2	1	1	1	2	2	5	5	9	2	10	9	16	13	24	14	31	20	47	212
	.5%	.5%	.5%	.9%	.9%	2.4%	2.4%	4.2%	.9%	4.7%	4.2%	7.5%	6.1%	11.3%	6.6%	14.6%	9.4%	22.2%	100.0%
ISCED 3	0	0	0	0	1	0	3	4	4	16	9	19	20	26	20	32	35	53	242
	.0%	.0%	.0%	.0%	.4%	.0%	1.2%	1.7%	1.7%	6.6%	3.7%	7.9%	8.3%	10.7%	8.3%	13.2%	14.5%	21.9%	100.0%
ISCED 4	0	0	0	1	0	1	0	2	5	6	8	6	24	15	6	36	44	81	235
	.0%	.0%	.0%	.4%	.0%	.4%	.0%	.9%	2.1%	2.6%	3.4%	2.6%	10.2%	6.4%	2.6%	15.3%	18.7%	34.5%	100.0%
ISCED 5+6	0	0	1	0	0	4	3	3	13	10	13	12	24	21	26	26	38	52	246
	.0%	.0%	.4%	.0%	.0%	1.6%	1.2%	1.2%	5.3%	4.1%	5.3%	4.9%	9.8%	8.5%	10.6%	10.6%	15.4%	21.1%	100.0%
Total	1	1	2	3	3	10	11	18	24	42	39	53	81	86	66	125	137	233	935
	.1%	.1%	.2%	.3%	.3%	1.1%	1.2%	1.9%	2.6%	4.5%	4.2%	5.7%	8.7%	9.2%	7.1%	13.4%	14.7%	24.9%	100.0%

**Table 2. Main reason for starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	B5. What was your main reason for starting this specific study programme?		Total
	mainly job related	mainly personal	
ISCED 1+2	30 12.0%	221 88.0%	251 100.0%
ISCED 3	102 38.2%	165 61.8%	267 100.0%
ISCED 4	159 64.1%	89 35.9%	248 100.0%
ISCED 5+6	160 62.7%	95 37.3%	255 100.0%
Total	451 44.2%	570 55.8%	1021 100.0%

**Table 2.1. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_1n 1. To learn more on a subject that interests me.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	36 14.3%	215 85.7%	251 100.0%
ISCED 3	75 28.6%	187 71.4%	262 100.0%
ISCED 4	34 13.7%	214 86.3%	248 100.0%
ISCED 5+6	59 23.0%	197 77.0%	256 100.0%
Total	204 20.1%	813 79.9%	1017 100.0%

**Table 2.2. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_2n 2. To earn more.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1 + 2	108 44.3%	136 55.7%	244 100.0%
ISCED 3	119 45.2%	144 54.8%	263 100.0%
ISCED 4	78 31.8%	167 68.2%	245 100.0%
ISCED 5 + 6	95 37.0%	162 63.0%	257 100.0%
Total	400 39.6%	609 60.4%	1009 100.0%

**Table 2.3. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_4n 4. to participate in group activities		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1 + 2	55 22.6%	188 77.4%	243 100.0%
ISCED 3	171 65.0%	92 35.0%	263 100.0%
ISCED 4	177 72.5%	67 27.5%	244 100.0%
ISCED 5 + 6	136 52.9%	121 47.1%	257 100.0%
Total	539 53.5%	468 46.5%	1007 100.0%

**Table 2.4. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_5n 5. To contribute more to my community.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1 + 2	81 33.9%	158 66.1%	239 100.0%
ISCED 3	99 37.9%	162 62.1%	261 100.0%
ISCED 4	116 47.7%	127 52.3%	243 100.0%
ISCED 5 + 6	104 40.5%	153 59.5%	257 100.0%
Total	400 40.0%	600 60.0%	1000 100.0%

**Table 2.5. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_6n 6. To gain awareness of myself and others.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1 + 2	52 21.5%	190 78.5%	242 100.0%
ISCED 3	106 40.8%	154 59.2%	260 100.0%
ISCED 4	116 47.3%	129 52.7%	245 100.0%
ISCED 5 + 6	125 48.6%	132 51.4%	257 100.0%
Total	399 39.7%	605 60.3%	1004 100.0%

**Table 2.6. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_7n 7. To get a break from the routine of home and work.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	100 41.8%	139 58.2%	239 100.0%
ISCED 3	173 65.8%	90 34.2%	263 100.0%
ISCED 4	145 58.9%	101 41.1%	246 100.0%
ISCED 5+6	153 59.5%	104 40.5%	257 100.0%
Total	571 56.8%	434 43.2%	1005 100.0%

**Table 2.7. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_8n 8. To do my job better.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	95 39.6%	145 60.4%	240 100.0%
ISCED 3	120 46.0%	141 54.0%	261 100.0%
ISCED 4	54 22.1%	190 77.9%	244 100.0%
ISCED 5+6	73 28.5%	183 71.5%	256 100.0%
Total	342 34.2%	659 65.8%	1001 100.0%

**Table 2.8. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_9n 9. Because someone advised me to do it.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	66 27.6%	173 72.4%	239 100.0%
ISCED 3	171 66.3%	87 33.7%	258 100.0%
ISCED 4	172 71.1%	70 28.9%	242 100.0%
ISCED 5+6	182 71.1%	74 28.9%	256 100.0%
Total	591 59.4%	404 40.6%	995 100.0%

**Table 2.9. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_10n 10. To start up my own business.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	186 77.8%	53 22.2%	239 100.0%
ISCED 3	176 68.0%	83 32.0%	259 100.0%
ISCED 4	133 53.8%	114 46.2%	247 100.0%
ISCED 5+6	160 62.3%	97 37.7%	257 100.0%
Total	655 65.4%	347 34.6%	1002 100.0%

**Table 2.10. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_11n 11. Because I was bored.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	144 62.9%	85 37.1%	229 100.0%
ISCED 3	221 85.7%	37 14.3%	258 100.0%
ISCED 4	215 88.5%	28 11.5%	243 100.0%
ISCED 5+6	212 83.1%	43 16.9%	255 100.0%
Total	792 80.4%	193 19.6%	985 100.0%

**Table 2.11. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_12n 12. Because I was obliged to do it, e.g. to claim benefits, to avoid redundancy.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	134 54.9%	110 45.1%	244 100.0%
ISCED 3	122 47.3%	136 52.7%	258 100.0%
ISCED 4	93 37.8%	153 62.2%	246 100.0%
ISCED 5+6	110 43.0%	146 57.0%	256 100.0%
Total	459 45.7%	545 54.3%	1004 100.0%



**Table 2.12. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .05$ )

	b8_13n 13. To get a job.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	81 33.3%	162 66.7%	243 100.0%
ISCED 3	100 38.6%	159 61.4%	259 100.0%
ISCED 4	65 26.7%	178 73.3%	243 100.0%
ISCED 5+6	88 34.8%	165 65.2%	253 100.0%
Total	334 33.5%	664 66.5%	998 100.0%

**Table 2.13. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_14n 14. To learn knowledge/skills useful in my daily life.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	29 11.9%	214 88.1%	243 100.0%
ISCED 3	81 30.9%	181 69.1%	262 100.0%
ISCED 4	52 21.1%	194 78.9%	246 100.0%
ISCED 5+6	64 24.9%	193 75.1%	257 100.0%
Total	226 22.4%	782 77.6%	1008 100.0%

**Table 2.14. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_16n 16. To meet new people.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	51 21.5%	186 78.5%	237 100.0%
ISCED 3	122 46.9%	138 53.1%	260 100.0%
ISCED 4	92 37.9%	151 62.1%	243 100.0%
ISCED 5+6	92 35.9%	164 64.1%	256 100.0%
Total	357 35.8%	639 64.2%	996 100.0%

**Table 2.15. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b8_18n 18. To obtain certificate.		Total
	This was not a reason for starting this study program	This was a reason for starting this study program	
ISCED 1+2	38 16.2%	197 83.8%	235 100.0%
ISCED 3	65 24.8%	197 75.2%	262 100.0%
ISCED 4	34 13.9%	211 86.1%	245 100.0%
ISCED 5+6	28 10.9%	228 89.1%	256 100.0%
Total	165 16.5%	833 83.5%	998 100.0%



**Table 2.16. Reasons by starting the programme by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Controlled motives index									Total
	.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	
ISCED 1+2	1	14	19	25	19	42	42	25	20	207
	.5%	6.8%	9.2%	12.1%	9.2%	20.3%	20.3%	12.1%	9.7%	100.0%
ISCED 3	20	23	27	28	27	39	31	27	24	246
	8.1%	9.3%	11.0%	11.4%	11.0%	15.9%	12.6%	11.0%	9.8%	100.0%
ISCED 4	2	13	18	26	28	43	55	34	12	231
	.9%	5.6%	7.8%	11.3%	12.1%	18.6%	23.8%	14.7%	5.2%	100.0%
ISCED 5+6	3	8	33	33	31	40	44	33	23	248
	1.2%	3.2%	13.3%	13.3%	12.5%	16.1%	17.7%	13.3%	9.3%	100.0%
Total	26	58	97	112	105	164	172	119	79	932
	2.8%	6.2%	10.4%	12.0%	11.3%	17.6%	18.5%	12.8%	8.5%	100.0%

**Table 2.17. Autonomous motives index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Autonomous motives index											Total
	.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	
ISCED 1+2	0	1	2	8	13	32	23	48	41	30	5	203
	.0%	.5%	1.0%	3.9%	6.4%	15.8%	11.3%	23.6%	20.2%	14.8%	2.5%	100.0%
ISCED 3	23	14	26	17	29	19	32	33	33	13	6	245
	9.4%	5.7%	10.6%	6.9%	11.8%	7.8%	13.1%	13.5%	13.5%	5.3%	2.4%	100.0%
ISCED 4	2	13	16	26	40	27	27	44	20	16	1	232
	.9%	5.6%	6.9%	11.2%	17.2%	11.6%	11.6%	19.0%	8.6%	6.9%	.4%	100.0%
ISCED 5+6	4	15	23	20	22	38	41	36	27	21	5	252
	1.6%	6.0%	9.1%	7.9%	8.7%	15.1%	16.3%	14.3%	10.7%	8.3%	2.0%	100.0%
Total	29	43	67	71	104	116	123	161	121	80	17	932
	3.1%	4.6%	7.2%	7.6%	11.2%	12.4%	13.2%	17.3%	13.0%	8.6%	1.8%	100.0%

**Table 2.18. Social control motives index by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

	Social control index				Total
	.00	1.00	2.00	3.00	
ISCED 1+2	15 6.6%	93 41.2%	82 36.3%	36 15.9%	226 100.0%
ISCED 3	70 27.6%	80 31.5%	58 22.8%	46 18.1%	254 100.0%
ISCED 4	50 21.0%	87 36.6%	78 32.8%	23 9.7%	238 100.0%
ISCED 5+6	64 25.1%	88 34.5%	67 26.3%	36 14.1%	255 100.0%
Total	199 20.5%	348 35.8%	285 29.3%	141 14.5%	973 100.0%

**Table 2.19. Human capital index by ISCED levels**(Chi-Square Asymptotic Significance  $p < .001$ )

	Human capital index							Total
	.00	1.00	2.00	3.00	4.00	5.00	6.00	
ISCED 1+2	11	30	25	28	52	44	24	214
	5.1%	14.0%	11.7%	13.1%	24.3%	20.6%	11.2%	100.0%
ISCED 3	23	34	32	47	38	50	26	250
	9.2%	13.6%	12.8%	18.8%	15.2%	20.0%	10.4%	100.0%
ISCED 4	4	15	26	32	53	67	38	235
	1.7%	6.4%	11.1%	13.6%	22.6%	28.5%	16.2%	100.0%
ISCED 5+6	3	16	39	38	62	50	42	250
	1.2%	6.4%	15.6%	15.2%	24.8%	20.0%	16.8%	100.0%
Total	41	95	122	145	205	211	130	949
	4.3%	10.0%	12.9%	15.3%	21.6%	22.2%	13.7%	100.0%

**Table 2.20. Social capital index by ISCED levels**(Chi-Square Asymptotic Significance  $p < .001$ )

	Social capital index					Total
	.00	1.00	2.00	3.00	4.00	
ISCED 1+2	5	21	50	54	93	223
	2.2%	9.4%	22.4%	24.2%	41.7%	100.0%
ISCED 3	50	42	49	52	61	254
	19.7%	16.5%	19.3%	20.5%	24.0%	100.0%
ISCED 4	43	40	58	54	42	237
	18.1%	16.9%	24.5%	22.8%	17.7%	100.0%
ISCED 5+6	36	33	57	62	67	255
	14.1%	12.9%	22.4%	24.3%	26.3%	100.0%
Total	134	136	214	222	263	969
	13.8%	14.0%	22.1%	22.9%	27.1%	100.0%

**Table 2.21. Personal fulfilment index by ISCED levels**(Chi-Square Asymptotic Significance  $p < .001$ )

	Personal fulfilment index						Total
	.00	1.00	2.00	3.00	4.00	5.00	
ISCED 1+2	2	6	20	71	84	33	216
	.9%	2.8%	9.3%	32.9%	38.9%	15.3%	100.0%
ISCED 3	35	31	49	73	47	16	251
	13.9%	12.4%	19.5%	29.1%	18.7%	6.4%	100.0%
ISCED 4	10	29	66	65	59	11	240
	4.2%	12.1%	27.5%	27.1%	24.6%	4.6%	100.0%
ISCED 5+6	11	37	74	63	55	14	254
	4.3%	14.6%	29.1%	24.8%	21.7%	5.5%	100.0%
Total	58	103	209	272	245	74	961
	6.0%	10.7%	21.7%	28.3%	25.5%	7.7%	100.0%

**Table 2.22. Factor Analysis of motivation items**

Rotated Component Matrix (a)

	Component			
	1	2	3	4
b8_5n	<b>.696</b>	.075	.110	-.028
b8_15n	<b>.690</b>	.219	.121	-.158
b8_6n	<b>.642</b>	-.070	.186	.185
b8_14n	<b>.605</b>	.227	-.019	.138
b8_1n	<b>.598</b>	.094	-.221	.052
b8_16n	<b>.565</b>	.111	.283	.166
b8_18n	<b>.377</b>	.345	-.121	.075
b8_2n	.048	<b>.665</b>	-.133	.145
b8_12n	.120	<b>.643</b>	.134	-.145
b8_13n	.139	<b>.611</b>	.060	.101
b8_8n	.300	<b>.599</b>	.052	-.083
b8_10n	-.015	<b>.565</b>	.212	-.188
b8_3n	-.066	<b>.562</b>	.024	.378
b8_17n	.230	<b>.468</b>	-.135	.372
b8_11n	-.036	.048	<b>.777</b>	.155
b8_7n	.259	.087	<b>.700</b>	.056
b8_9n	.034	.042	.195	<b>.777</b>
b8_4n	.466	-.076	.116	<b>.542</b>

**Table 3. Student Confidence by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b21_3n 3. I am confident that I will be able to complete the study programme.			Total
	Not confident	Not having opinion	Confident	
ISCED 1+2	21 8.5%	34 13.8%	191 77.6%	246 100.0%
ISCED 3	11 4.2%	16 6.1%	236 89.7%	263 100.0%
ISCED 4	3 1.2%	12 4.9%	230 93.9%	245 100.0%
ISCED 5+6	6 2.3%	25 9.7%	226 87.9%	257 100.0%
Total	41 4.1%	87 8.6%	883 87.3%	1011 100.0%

**Table 3.1. Problems index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Problems index grouped into 4				Total
	No problems	1-3 problems	4-6 problems	more than 7 problems	
ISCED 1+2	129 54.9%	97 41.3%	8 3.4%	1 .4%	235 100.0%
ISCED 3	88 34.4%	124 48.4%	42 16.4%	2 .8%	256 100.0%
ISCED 4	60 24.9%	145 60.2%	34 14.1%	2 .8%	241 100.0%
ISCED 5+6	77 30.3%	135 53.1%	40 15.7%	2 .8%	254 100.0%
Total	354 35.9%	501 50.8%	124 12.6%	7 .7%	986 100.0%

**Table 4.1. Student satisfaction by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b23_1n 1. the general progress of the entire study programme.			Total
	Dissatisfied	Can not decide	Satisfied	
ISCED 1+2	17 6.9%	29 11.8%	199 81.2%	245 100.0%
ISCED 3	10 3.8%	50 18.8%	206 77.4%	266 100.0%
ISCED 4	12 4.8%	47 18.9%	190 76.3%	249 100.0%
ISCED 5+6	30 11.7%	76 29.6%	151 58.8%	257 100.0%
Total	69 6.8%	202 19.9%	746 73.4%	1017 100.0%



**Table 4.2. Student satisfaction by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b23_2n 2. The general learning climate in the educational institution.			Total
	Dissatisfied	Can not decide	Satisfied	
ISCED 1+2	7 2.9%	61 25.2%	174 71.9%	242 100.0%
ISCED 3	11 4.1%	52 19.5%	203 76.3%	266 100.0%
ISCED 4	22 8.9%	49 19.8%	177 71.4%	248 100.0%
ISCED 5+6	32 12.5%	94 36.6%	131 51.0%	257 100.0%
Total	72 7.1%	256 25.3%	685 67.6%	1013 100.0%

**Table 4.3. Student satisfaction by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b23_3n 3. The general practical organisation of the educational institution.			Total
	Dissatisfied	Can not decide	Satisfied	
ISCED 1+2	15 6.1%	54 22.1%	175 71.7%	244 100.0%
ISCED 3	10 3.8%	56 21.2%	198 75.0%	264 100.0%
ISCED 4	28 11.3%	49 19.8%	171 69.0%	248 100.0%
ISCED 5+6	25 9.8%	106 41.4%	125 48.8%	256 100.0%
Total	78 7.7%	265 26.2%	669 66.1%	1012 100.0%

**Table 4.4. Student satisfaction by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .01$ )

	b23_4n 4. What you have so far learned thanks to the course.			Total
	Dissatisfied	Can not decide	Satisfied	
ISCED 1+2	14 5.8%	48 20.0%	178 74.2%	240 100.0%
ISCED 3	7 2.7%	43 16.3%	213 81.0%	263 100.0%
ISCED 4	6 2.4%	38 15.4%	202 82.1%	246 100.0%
ISCED 5+6	9 3.5%	68 26.6%	179 69.9%	256 100.0%
Total	36 3.6%	197 19.6%	772 76.8%	1005 100.0%

**Table 4.5. Student satisfaction by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	b23_5n 5. What you can go on to do after completion of this course.			Total
	Dissatisfied	Can not decide	Satisfied	
ISCED 1+2	16 6.7%	86 36.1%	136 57.1%	238 100.0%
ISCED 3	11 4.2%	54 20.5%	199 75.4%	264 100.0%
ISCED 4	10 4.0%	42 16.9%	196 79.0%	248 100.0%
ISCED 5+6	15 5.8%	72 28.0%	170 66.1%	257 100.0%
Total	52 5.2%	254 25.2%	701 69.6%	1007 100.0%

**Table 4.6. Student satisfaction with process index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

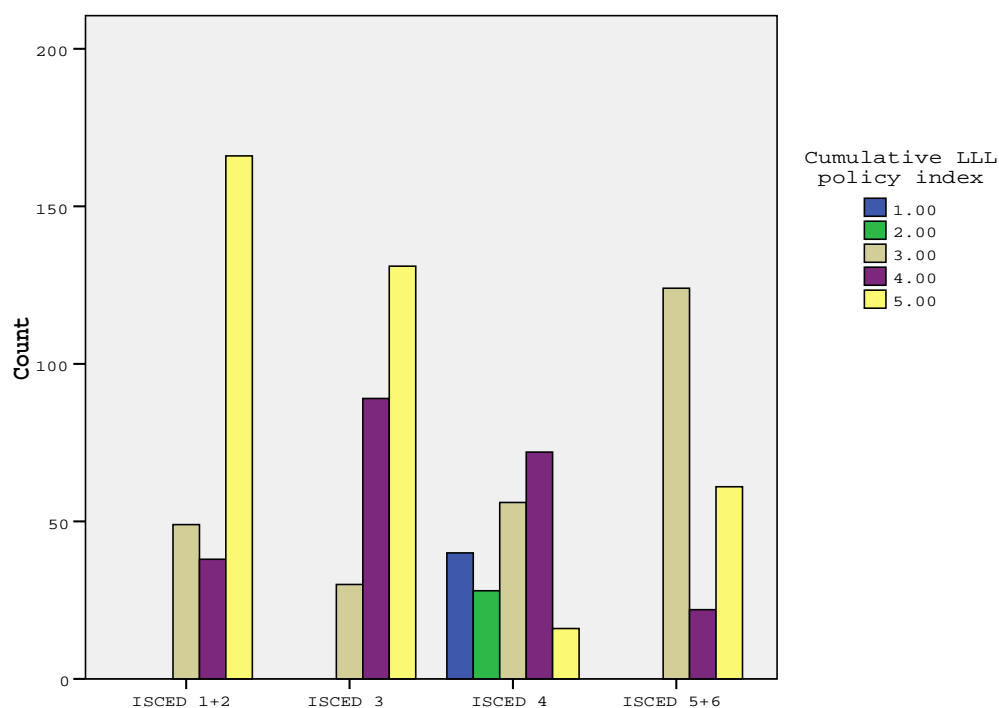
	Satisfaction with process index							Total
	-3.00	-2.00	-1.00	.00	1.00	2.00	3.00	
ISCED 1+2	3 1.3%	0 .0%	6 2.6%	27 11.6%	22 9.4%	31 13.3%	144 61.8%	233 100.0%
ISCED 3	2 .8%	2 .8%	7 2.7%	21 8.0%	34 12.9%	35 13.3%	163 61.7%	264 100.0%
ISCED 4	8 3.2%	11 4.4%	8 3.2%	21 8.5%	22 8.9%	27 10.9%	151 60.9%	248 100.0%
ISCED 5+6	12 4.7%	13 5.1%	15 5.9%	51 19.9%	31 12.1%	35 13.7%	99 38.7%	256 100.0%
Total	25 2.5%	26 2.6%	36 3.6%	120 12.0%	109 10.9%	128 12.8%	557 55.6%	1001 100.0%

**Table 4.7. Student satisfaction with outcomes index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .01$ )

	Satisfaction with outcomes index					Total
	-2.00	-1.00	.00	1.00	2.00	
ISCED 1+2	5 2.1%	12 5.2%	40 17.2%	50 21.5%	126 54.1%	233 100.0%
ISCED 3	3 1.1%	3 1.1%	33 12.6%	46 17.6%	177 67.6%	262 100.0%
ISCED 4	2 .8%	8 3.3%	24 9.8%	32 13.0%	180 73.2%	246 100.0%
ISCED 5+6	6 2.3%	8 3.1%	44 17.2%	51 19.9%	147 57.4%	256 100.0%
Total	16 1.6%	31 3.1%	141 14.1%	179 18.0%	630 63.2%	997 100.0%

**Table 5.1. Cumulative LLL policy index by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

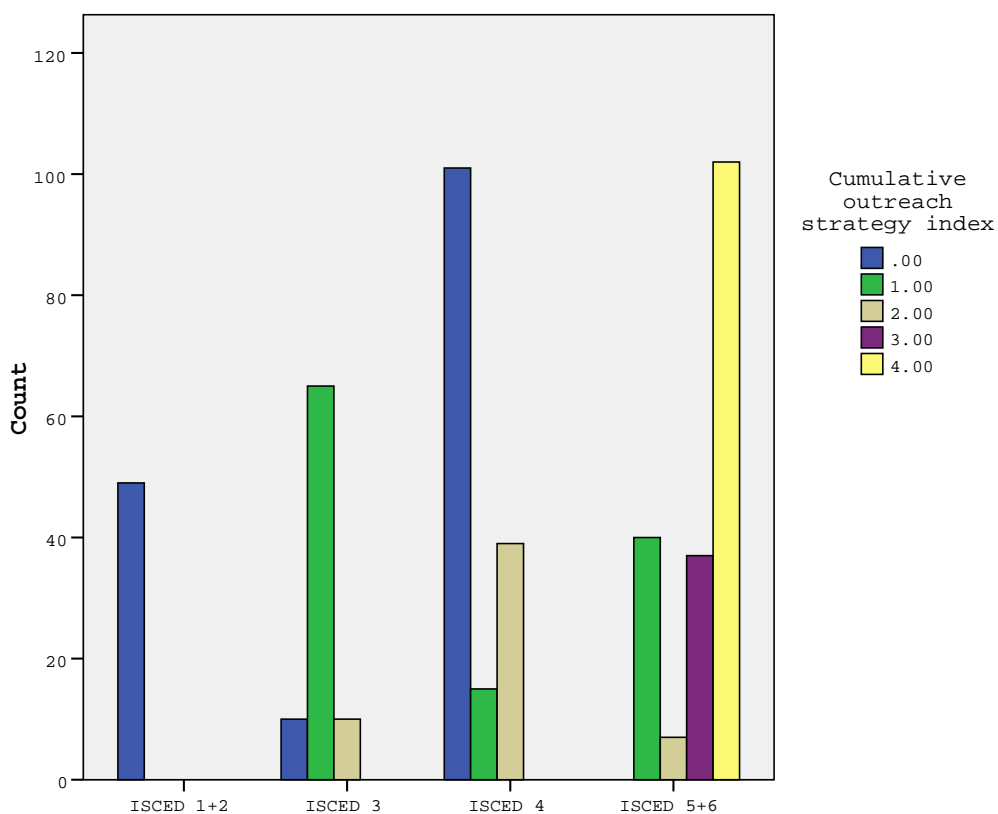
	Cumulative LLL policy index					Total
	1.00	2.00	3.00	4.00	5.00	
ISCED 1+2	0	0	49	38	166	253
	.0%	.0%	19.4%	15.0%	65.6%	100.0%
ISCED 3	0	0	30	89	131	250
	.0%	.0%	12.0%	35.6%	52.4%	100.0%
ISCED 4	40	28	56	72	16	212
	18.9%	13.2%	26.4%	34.0%	7.5%	100.0%
ISCED 5+6	0	0	124	22	61	207
	.0%	.0%	59.9%	10.6%	29.5%	100.0%
Total	40	28	259	221	374	922
	4.3%	3.0%	28.1%	24.0%	40.6%	100.0%



**Figure 5.1.** *Cumulative LLL policy index by ISCED levels*

**Table 5.2. Cumulative outreach strategy index by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

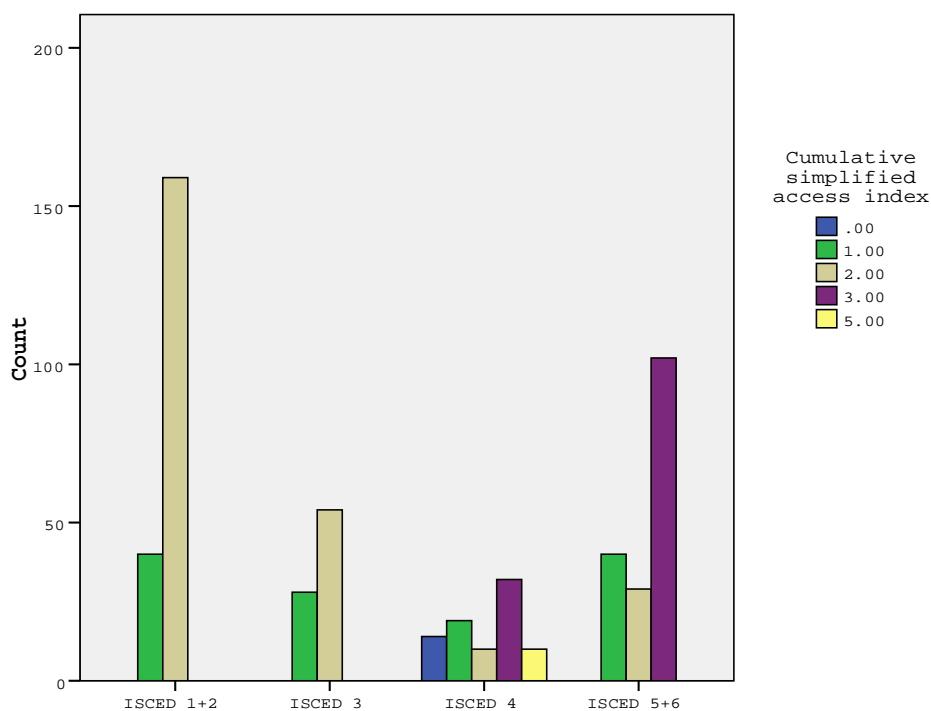
	Cumulative outreach strategy index					Total
	.00	1.00	2.00	3.00	4.00	
ISCED 1+2	49	0	0	0	0	49
	100.0%	.0%	.0%	.0%	.0%	100.0%
ISCED 3	10	65	10	0	0	85
	11.8%	76.5%	11.8%	.0%	.0%	100.0%
ISCED 4	101	15	39	0	0	155
	65.2%	9.7%	25.2%	.0%	.0%	100.0%
ISCED 5+6	0	40	7	37	102	186
	.0%	21.5%	3.8%	19.9%	54.8%	100.0%
Total	160	120	56	37	102	475
	33.7%	25.3%	11.8%	7.8%	21.5%	100.0%



**Figure 5.2.** *Cumulative outreach strategy index by ISCED levels*

**Table 5.3. Cumulative simplified access index by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

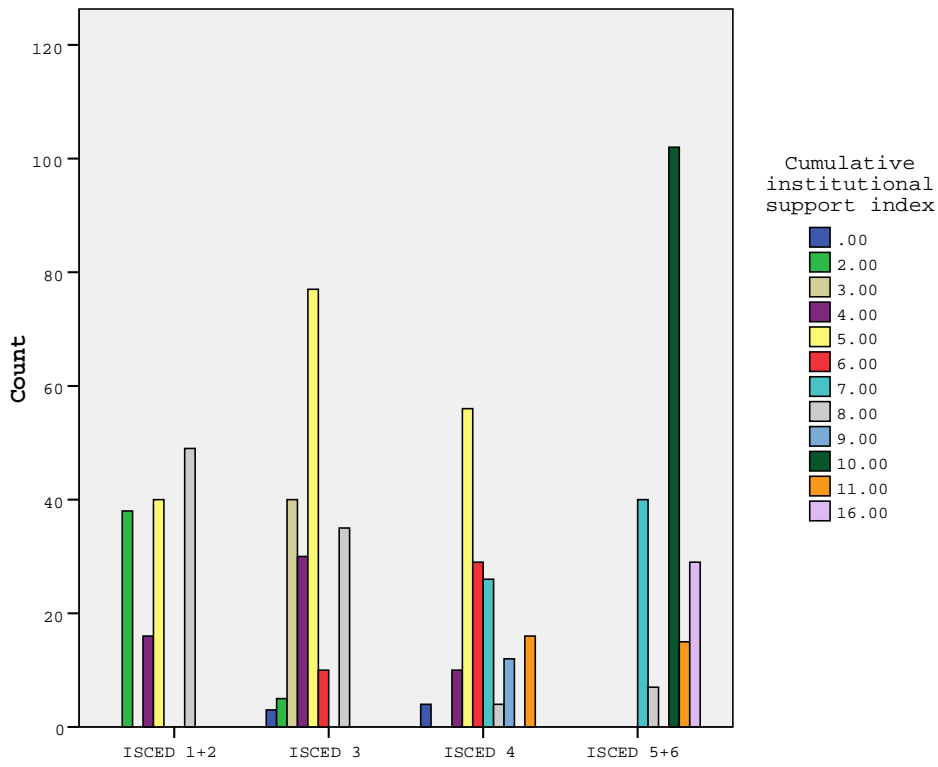
	Cumulative simplified access index					Total
	.00	1.00	2.00	3.00	5.00	
ISCED 1+2	0	40	159	0	0	199
	.0%	20.1%	79.9%	.0%	.0%	100.0%
ISCED 3	0	28	54	0	0	82
	.0%	34.1%	65.9%	.0%	.0%	100.0%
ISCED 4	14	19	10	32	10	85
	16.5%	22.4%	11.8%	37.6%	11.8%	100.0%
ISCED 5+6	0	40	29	102	0	171
	.0%	23.4%	17.0%	59.6%	.0%	100.0%
Total	14	127	252	134	10	537
	2.6%	23.6%	46.9%	25.0%	1.9%	100.0%



**Figure 5.3.** *Cumulative simplified access index by ISCED levels*

**Table 5.4. Cumulative institutional support index by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

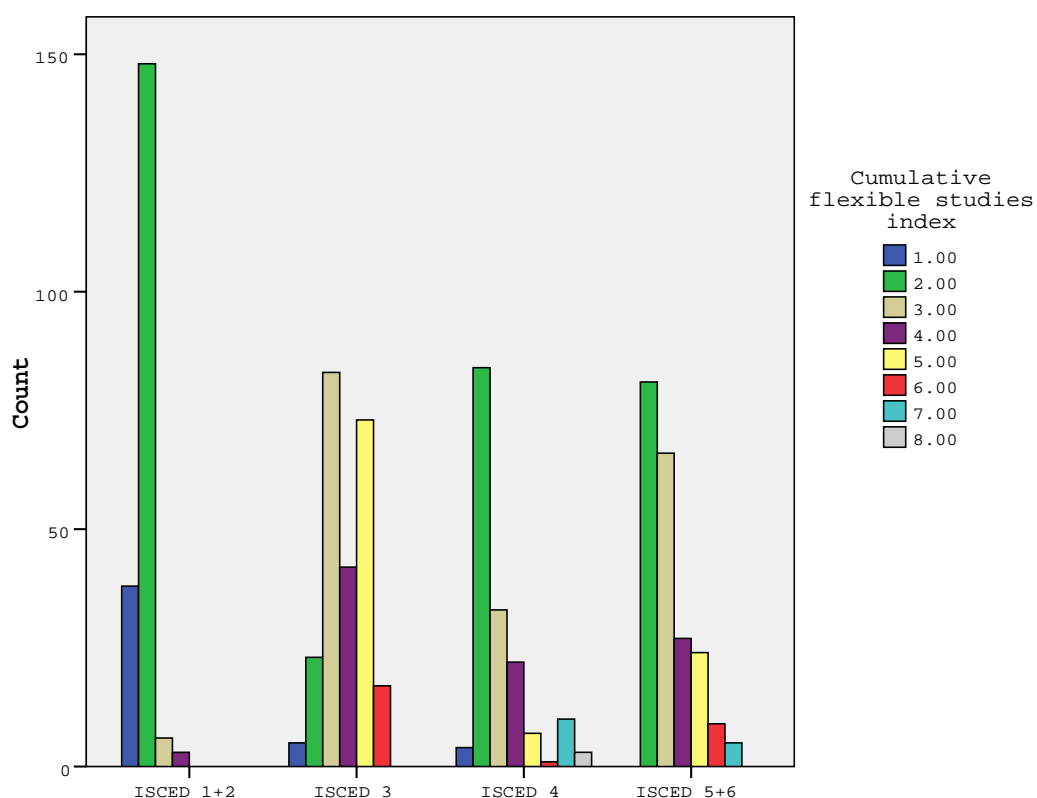
	Cumulative institutional support index												Total
	.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	16.00	.00
ISCED 1+2	0	38	0	16	40	0	0	49	0	0	0	0	143
	.0%	26.6%	.0%	11.2%	28.0%	.0%	.0%	34.3%	.0%	.0%	.0%	.0%	100.0%
ISCED 3	3	5	40	30	77	10	0	35	0	0	0	0	200
	1.5%	2.5%	20.0%	15.0%	38.5%	5.0%	.0%	17.5%	.0%	.0%	.0%	.0%	100.0%
ISCED 4	4	0	0	10	56	29	26	4	12	0	16	0	157
	2.5%	.0%	.0%	6.4%	35.7%	18.5%	16.6%	2.5%	7.6%	.0%	10.2%	.0%	100.0%
ISCED 5+6	0	0	0	0	0	0	40	7	0	102	15	29	193
	.0%	.0%	.0%	.0%	.0%	.0%	20.7%	3.6%	.0%	52.8%	7.8%	15.0%	100.0%
Total	7	43	40	56	173	39	66	95	12	102	31	29	693
	1.0%	6.2%	5.8%	8.1%	25.0%	5.6%	9.5%	13.7%	1.7%	14.7%	4.5%	4.2%	100.0%



**Figure 5.4.** *Cumulative institutional support index by ISCED levels*

**Table 5.5. Cumulative flexible studies index by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Cumulative flexible studies index								Total
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	
ISCED 1+2	38	148	6	3	0	0	0	0	195
	19.5%	75.9%	3.1%	1.5%	.0%	.0%	.0%	.0%	100.0%
ISCED 3	5	23	83	42	73	17	0	0	243
	2.1%	9.5%	34.2%	17.3%	30.0%	7.0%	.0%	.0%	100.0%
ISCED 4	4	84	33	22	7	1	10	3	164
	2.4%	51.2%	20.1%	13.4%	4.3%	.6%	6.1%	1.8%	100.0%
ISCED 5+6	0	81	66	27	24	9	5	0	212
	.0%	38.2%	31.1%	12.7%	11.3%	4.2%	2.4%	.0%	100.0%
Total	47	336	188	94	104	27	15	3	814
	5.8%	41.3%	23.1%	11.5%	12.8%	3.3%	1.8%	.4%	100.0%

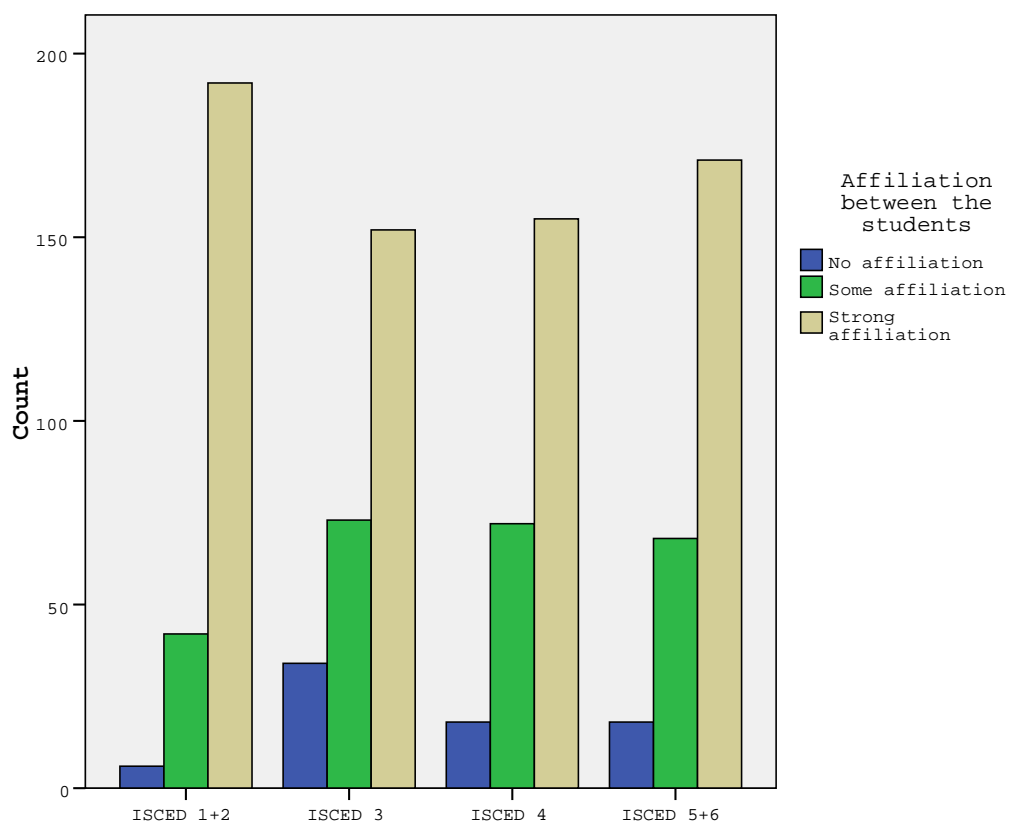


**Figure 5.5.** *Cumulative flexible studies index by ISCED levels*



**Table 6.1. Assessment of teaching process (affiliation between the students) by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .001$ )

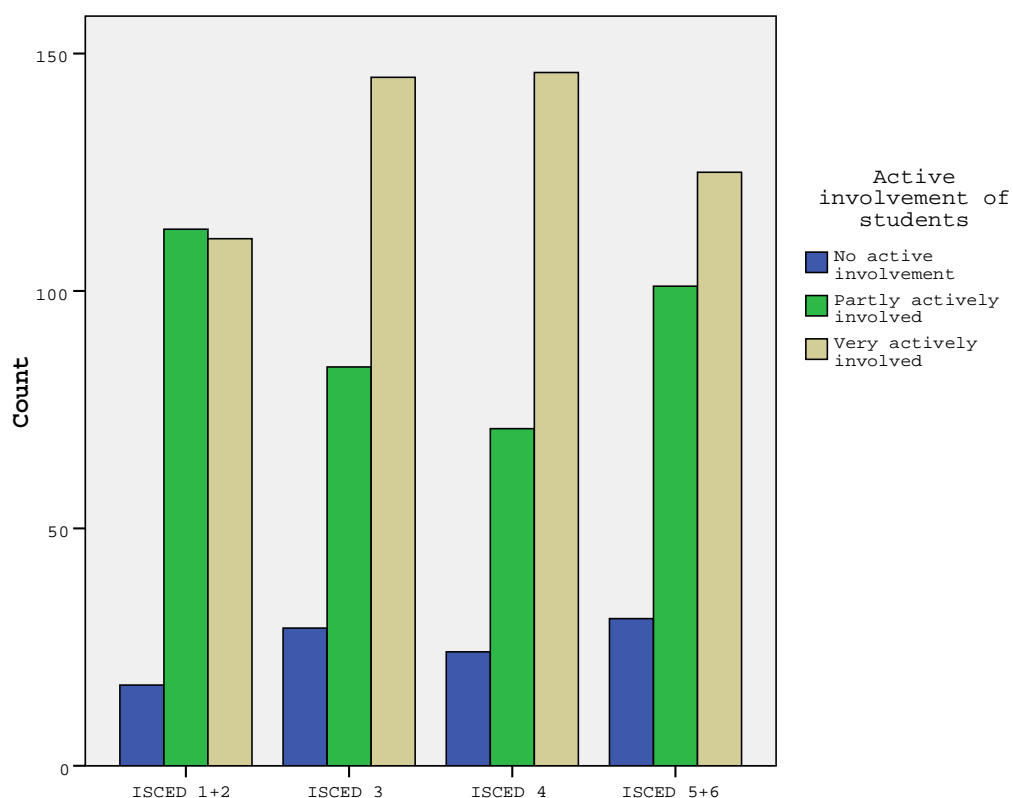
	Affiliation between the students			Total
	No affiliation	Some affiliation	Strong affiliation	
ISCED 1+2	6 2.5%	42 17.5%	192 80.0%	240 100.0%
ISCED 3	34 13.1%	73 28.2%	152 58.7%	259 100.0%
ISCED 4	18 7.3%	72 29.4%	155 63.3%	245 100.0%
ISCED 5+6	18 7.0%	68 26.5%	171 66.5%	257 100.0%
Total	76 7.6%	255 25.5%	670 66.9%	1001 100.0%



**Figure 6.1. Assessment of teaching process (affiliation between the students) by ISCED levels**

**Table 6.2. Assessment of teaching process (active involvement of students) by ISCED levels**  
 (Chi-Square Asymptotic Significance  $p < .01$ )

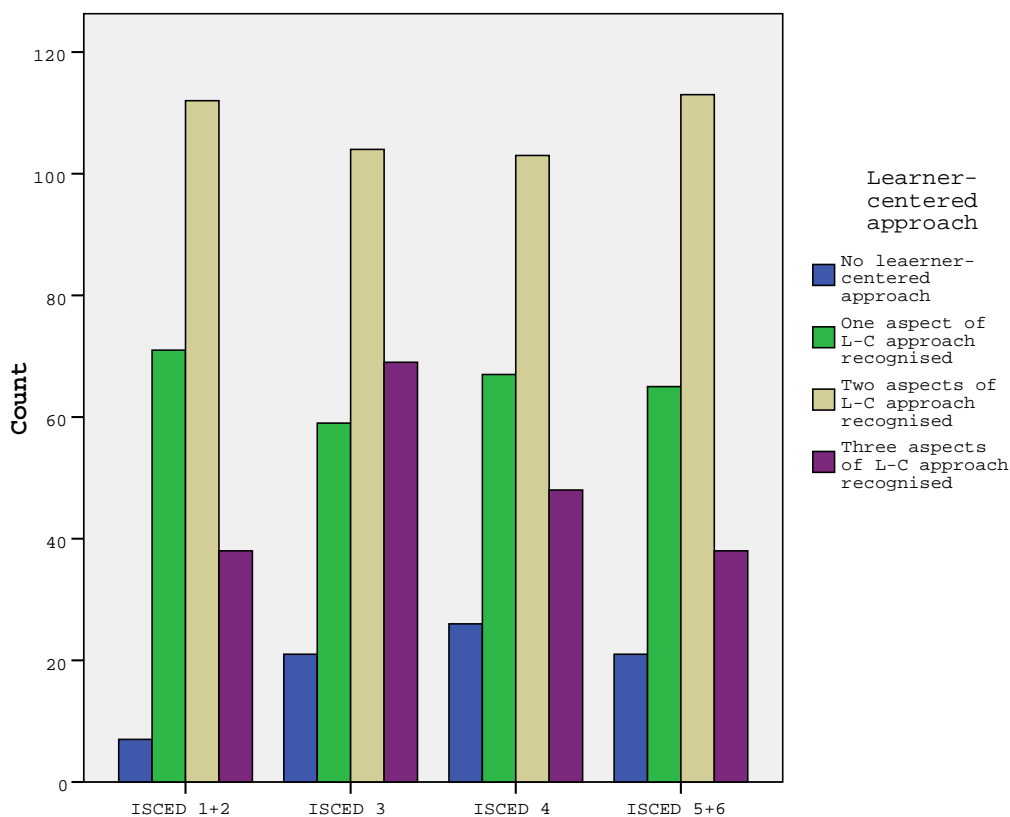
	Active involvement of students			Total
	No active involvement	Partly actively involved	Very actively involved	
ISCED 1+2	17 7.1%	113 46.9%	111 46.1%	241 100.0%
ISCED 3	29 11.2%	84 32.6%	145 56.2%	258 100.0%
ISCED 4	24 10.0%	71 29.5%	146 60.6%	241 100.0%
ISCED 5+6	31 12.1%	101 39.3%	125 48.6%	257 100.0%
Total	101 10.1%	369 37.0%	527 52.9%	997 100.0%



**Figure 6.2.** *Assessment of teaching process (active involvement of students) by ISCED levels*

**Table 6.3. Assessment of teaching process (learner-centered approach) by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .01$ )

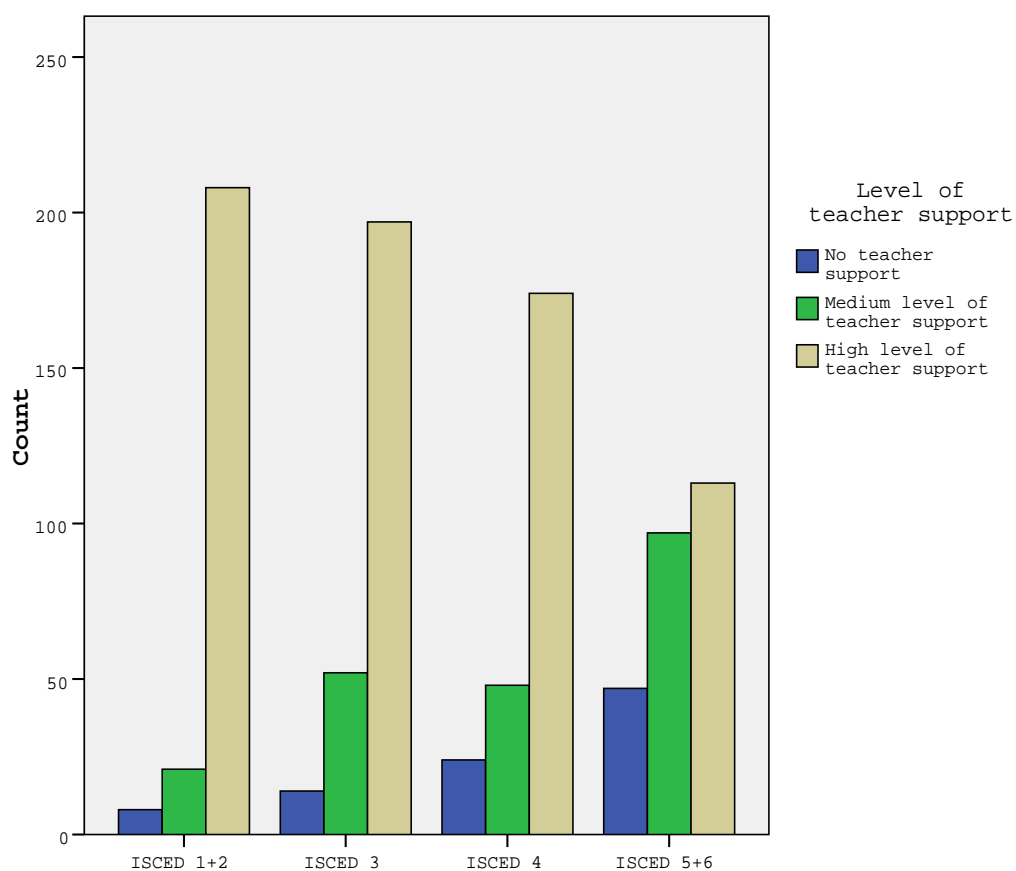
	Learner-centered approach				Total
	No learner-centered approach	One aspect of L-C approach recognized	Two aspects of L-C approach recognized	Three aspects of L-C approach recognized	
ISCED 1+2	7 3.1%	71 31.1%	112 49.1%	38 16.7%	228 100.0%
ISCED 3	21 8.3%	59 23.3%	104 41.1%	69 27.3%	253 100.0%
ISCED 4	26 10.7%	67 27.5%	103 42.2%	48 19.7%	244 100.0%
ISCED 5+6	21 8.9%	65 27.4%	113 47.7%	38 16.0%	237 100.0%
Total	75 7.8%	262 27.2%	432 44.9%	193 20.1%	962 100.0%



**Figure 6.3.** *Assessment of teaching process (learner-centered approach) by ISCED levels*

**Table 6.4. Assessment of teaching process (level of teacher support) by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

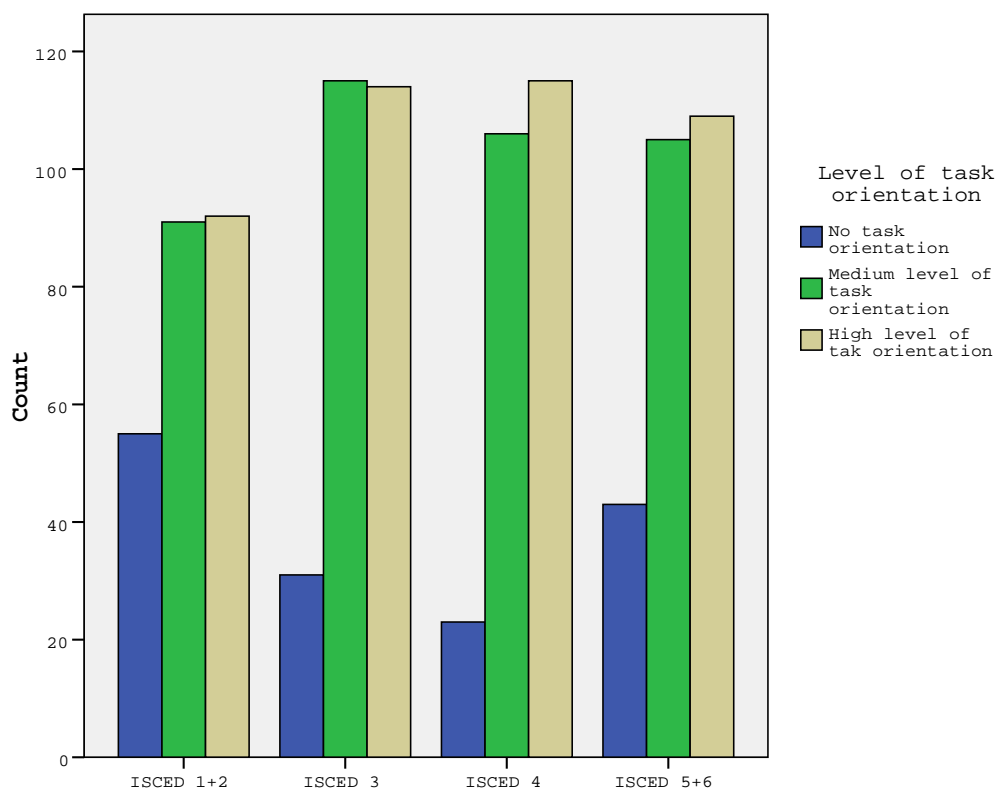
	Level of teacher support			Total
	No teacher support	Medium level of teacher support	High level of teacher support	
ISCED 1+2	8 3.4%	21 8.9%	208 87.8%	237 100.0%
ISCED 3	14 5.3%	52 19.8%	197 74.9%	263 100.0%
ISCED 4	24 9.8%	48 19.5%	174 70.7%	246 100.0%
ISCED 5+6	47 18.3%	97 37.7%	113 44.0%	257 100.0%
Total	93 9.3%	218 21.7%	692 69.0%	1003 100.0%



**Figure 6.4.** *Assessment of teaching process (level of teacher support) by ISCED levels*

**Table 6.5. Assessment of teaching process (level of task orientation) by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .01$ )

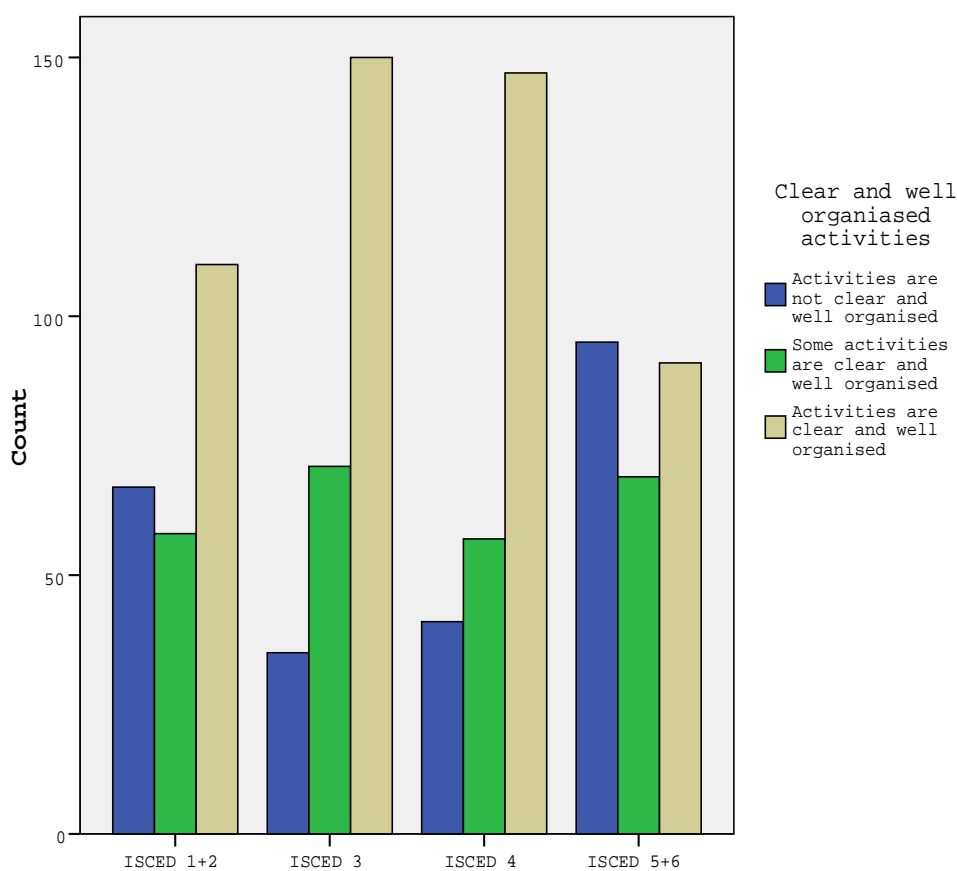
	Level of task orientation			Total
	No task orientation	Medium level of task orientation	High level of task orientation	
ISCED 1+2	55 23.1%	91 38.2%	92 38.7%	238 100.0%
ISCED 3	31 11.9%	115 44.2%	114 43.8%	260 100.0%
ISCED 4	23 9.4%	106 43.4%	115 47.1%	244 100.0%
ISCED 5+6	43 16.7%	105 40.9%	109 42.4%	257 100.0%
Total	152 15.2%	417 41.7%	430 43.0%	999 100.0%



**Figure 6.5.** *Assessment of teaching process (level of task orientation) by ISCED levels*

**Table 6.6. Assessment of teaching process (clear and well organized activities) by ISCED levels**  
(Chi-Square Asymptotic Significance  $p < .001$ )

	Clear and well organized activities			Total
	Activities are not clear and well organized	Some activities are clear and well organized	Activities are clear and well organized	
ISCED 1+2	67 28.5%	58 24.7%	110 46.8%	235 100.0%
ISCED 3	35 13.7%	71 27.7%	150 58.6%	256 100.0%
ISCED 4	41 16.7%	57 23.3%	147 60.0%	245 100.0%
ISCED 5+6	95 37.3%	69 27.1%	91 35.7%	255 100.0%
Total	238 24.0%	255 25.7%	498 50.3%	991 100.0%

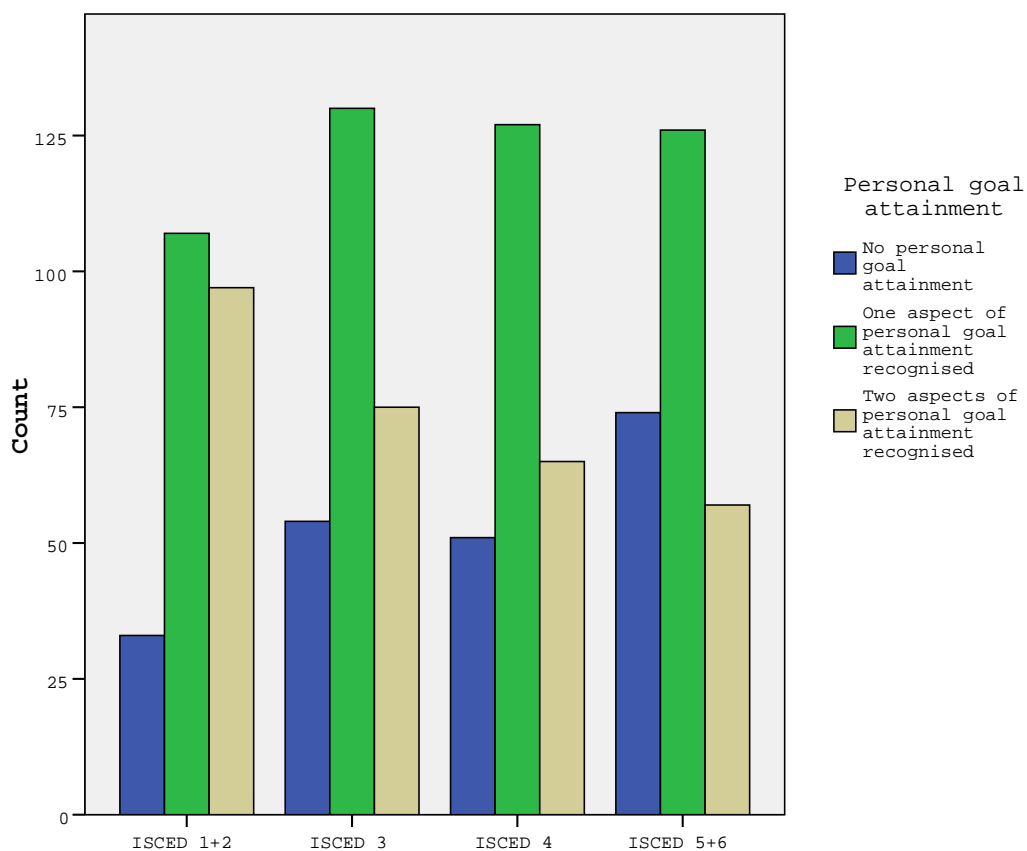


**Figure 6.6.** *Assessment of teaching process (clear and well organized activities) by ISCED levels*

**Table 6.7. Assessment of teaching process (personal goal attainment) by ISCED levels**

(Chi-Square Asymptotic Significance  $p < .001$ )

	Personal goal attainment			Total
	No personal goal attainment	One aspect of personal goal attainment recognized	Two aspects of personal goal attainment recognized	
ISCED 1+2	33 13.9%	107 45.1%	97 40.9%	237 100.0%
ISCED 3	54 20.8%	130 50.2%	75 29.0%	259 100.0%
ISCED 4	51 21.0%	127 52.3%	65 26.7%	243 100.0%
ISCED 5+6	74 28.8%	126 49.0%	57 22.2%	257 100.0%
Total	212 21.3%	490 49.2%	294 29.5%	996 100.0%



**Figure 6.7.** *Assessment of teaching process (personal goal attainment) by ISCED levels*

# Annex 4.

First of all rather than looking at the influence of the ISCED level of the study programme the respondents were enrolled in on the dependent variables we decided to look at the impact of the other logical, though related to it variable, the respondents' completed education on these same dependent variables. Second, instead of running a regression analysis we preferred to carry out series of one way ANOVAs on the entire sample. For this purpose we recoded the respondents' completed education into 4 levels: 1) low and primary education; 2) basic or lower secondary 5 to 8 grade; 3) secondary 9 to 12 grade; 4) college, higher education, university.

We obtained some interpretable interesting dependencies: Thus the result of the ANOVA we ran with dependent variable Attitude toward LLL-index , which comprised both the emotional and belief-based attitude measure, and independent variable the respondents' completed education was significant [ $F(3, 973) = 17,02; p < .001$ ]. As the Figure below shows (See Figure 1) positive attitude towards education both as enjoyment (items such as: I enjoy educational activities that allow me to learn with others; I'm fed up with teachers and classes) and as belief (items such as: Adult/continuing education is mostly for people with little else to do; Adult/continuing education helps people make better use of their lives etc.). Goes up with the increase of educational level of the respondent up to secondary level.

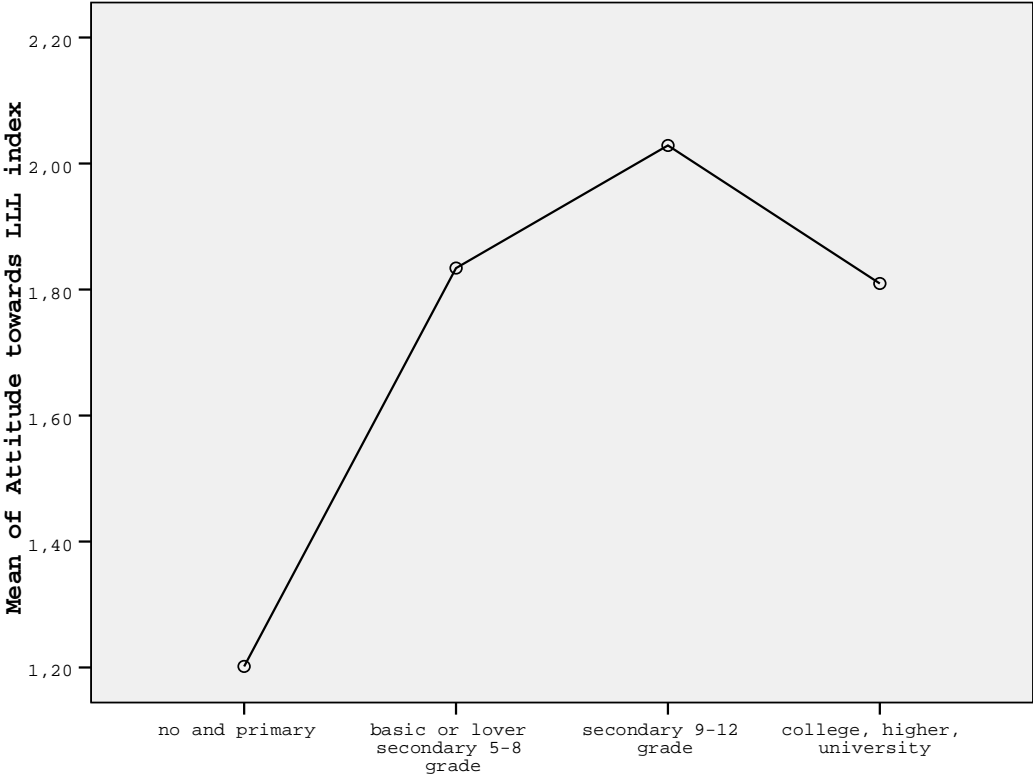


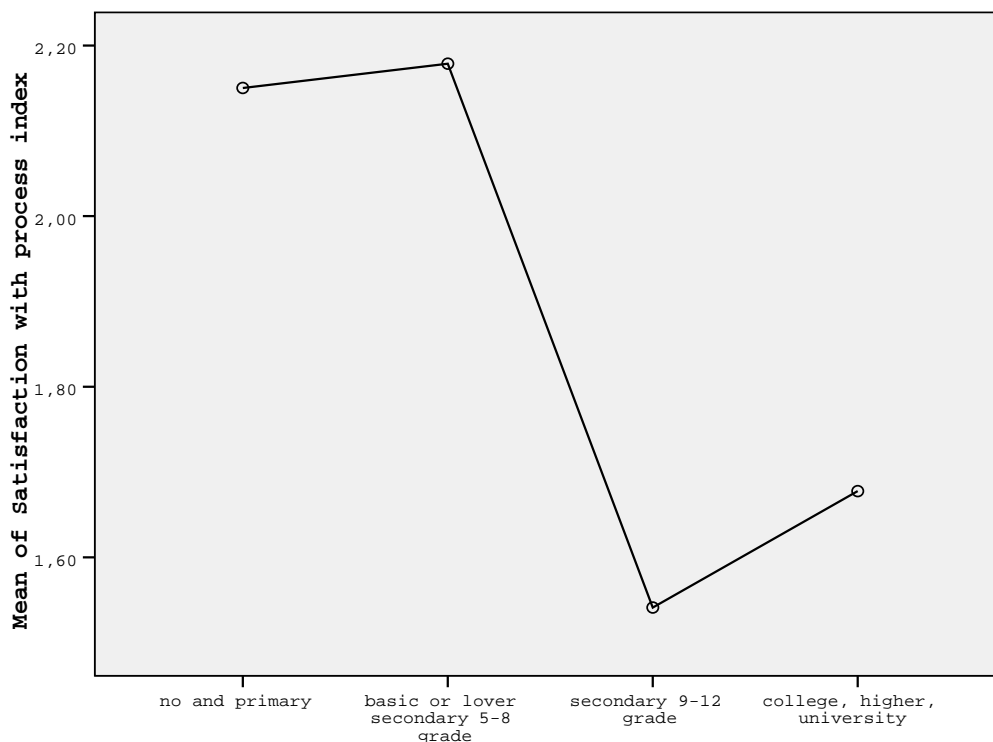
Figure 1. Means of attitude towards LLL by completed education



The post hoc test (Bonferroni) showed that the attitude, which respondents with prior education had was significantly less positive than the attitudes of the respondents from the rest of the levels and then remains stable. The test showed no significant difference in attitude between secondary educational level and the highest educational level (college, higher and university). At first glance this result might seem unexpected but a possible explanation to it is that Bulgarian educational system has been in a process of reformation and reorganization and those who have been aware and most critical toward it have been the people from the upper levels of education.

Another worth mentioning result refers to the relationship between education level and satisfaction with the process of LLL [F (3, 973) = 12.04; p < .001] and education level and the outcome of LLL [F (3, 973) = 4.17; p < .001].

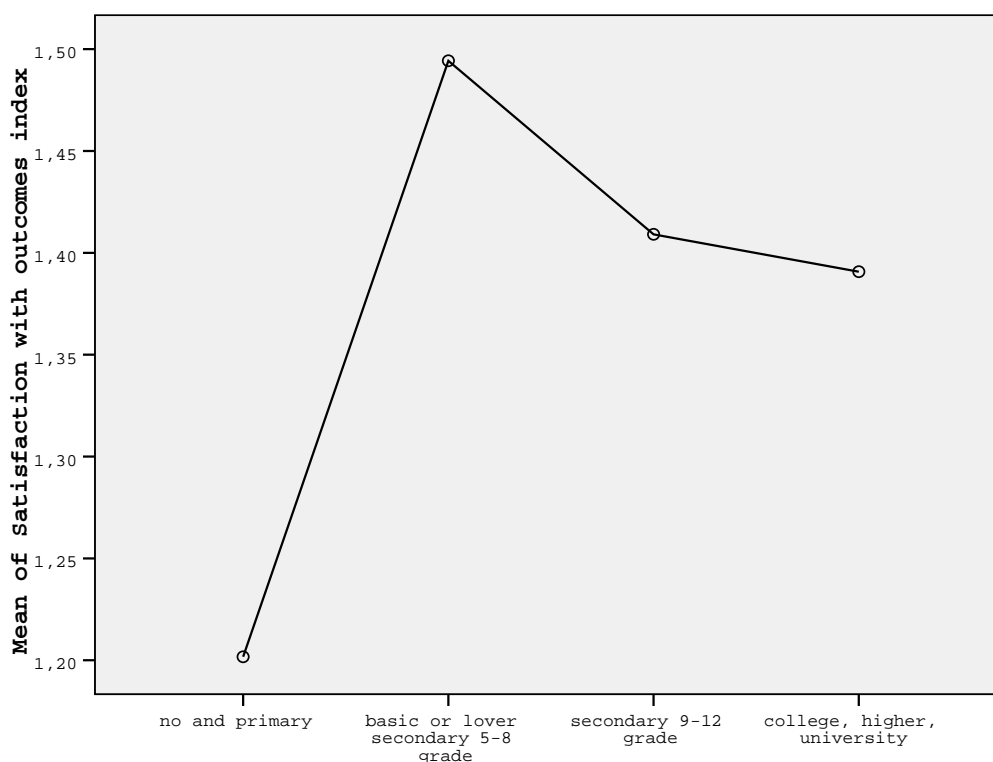
Regarding satisfaction with the process of learning we can see (Fig. 2) that most satisfied are the respondents with primary and basic education. They are satisfied with such aspects of the process of learning as the general progress of the entire study programme, with the general learning climate in the educational institution, and with its general practical organisation. Then follows a dramatic drop down – including both secondary and higher education (The Post hoc test did not show significant differences in satisfaction between secondary and higher education.) See Figure 2.



**Figure 2.** *Means of satisfaction with the process of LLL by completed education*

Having in mind the developments in Bulgarian educational system we would say that these results are not unexpected. There has been harsh criticism of the entire system both regarding the principals of organization and the daily practices. And it is not surprising that those who are acquainted with the debate, and who are often part of it are the respondents with secondary and higher education.

Speculating on the relationship of satisfaction with the outcome of LLL (or in other words ‘what you have so far learned thanks to the course’; and ‘what you can go on to do after completion of this course’) we might suggest that peak of satisfaction with the outcome with LLL which is for basic education seems to tell us that the ‘touch’ with knowledge is a revelation.



**Figure 3.** *Means of Satisfaction with the outcome of LLL by completed education*

A possible explanation of the tendency regarding the satisfaction with the outcome of LLL with respondents of secondary and higher education can be related to the current situation in Bulgaria. The criticism which the reform in the educational system has been undergoing for the last decade might have had also an impact on the satisfaction with LLL of respondents with secondary and university education who no doubt are more aware with the ongoing processed in this realm of society.

## GENERAL CONTEXT OF THE LLL2010 RESEARCH PROJECT

In March 2000, the then 15 European leaders committed the European Union to become by 2010 “the most dynamic and competitive knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment”. The Lisbon strategy, as it has come to be known, was a comprehensive but interdependent series of reforms, which has significant implications for a whole range of social policies, including policies for learning.

As part of the Lisbon strategy, the European Union has set the goal of raising the number of adults participating in lifelong learning to 12.5% by 2010. However, the proportion of learning adults in Europe differs widely across countries. The project "**Towards a Lifelong Learning Society in Europe: the contribution of the education system**", which forms part of the European Commission’s 6<sup>th</sup> Framework Research Program, is dedicated to identifying the reasons behind these differences and to studying the policies and practices related to adults’ participation in and access to lifelong learning in a number of European countries (see project’s web-page <http://LLL2010.tlu.ee>).

The project involves researchers from thirteen countries and regions of Europe: Scotland, England, Ireland, Austria, Belgium, Slovenia, Czech Republic, Estonia, Lithuania, Hungary, Bulgaria, Norway and Russia.

### Project objectives

The objectives of this project are to:

- Show to what extent the countries differ in terms of patterns of lifelong learning.
- Reveal how these differences depend upon specific institutions and policies of each country.
- Assess the contribution of each country’s education system to the development of lifelong learning.
- Trace the ways institutional and policy prerequisites for lifelong learning have been developed in European countries.
- Identify the barriers to participation in lifelong learning in terms of policies, educational institutions, enterprises’ practices and potential learners’ motivation.
- Identify the best solutions and most successful practices in terms of participation in lifelong learning and to decide to what extent these would be applicable in other countries.
- Propose changes, which would enhance adult participation in lifelong learning and decrease social exclusion.

The LLL2010 research project extends over five years (commencing in September 2005), and these questions will be addressed in various ways through five sub-projects.

### Potential impact

Project is expected to contribute both to competitiveness and cohesion of the EU by (a) developing and carrying out a joint agenda for a better understanding of the tensions between the knowledge-based society, lifelong learning and social inclusion in the context of enlargement of the EU and globalisation, (b) identification of best practices and suggestion of ways for implementation in order to reach the objectives for lifelong learning.

## Disseminating the knowledge

The project aims to examine and report on national differences in approaching formal lifelong learning, but also to assist policymakers and practitioners in learning appropriate lessons from contrasting practice in other countries. Therefore, disseminating knowledge to relevant audiences – individuals, institutional actors and policymakers – is of the core issues within this project, and so dissemination activity will take place throughout the life of the project.

The preliminary results will be discussed in the workshops and conferences and introduced to national as well as international audiences. The results of the different research projects within LLL2010 will be presented in five comparative reports – one per subproject – and a final report, and two books will be published as a result of the project. A Conference “The Contribution of the Education System to Lifelong Learning”, scheduled in the end of the project, is aimed at discussing findings, conclusions and expert opinions on a European level.

To contribute to scientific discussion and enhance comparative studies in the field, further analysis of the results of the research will take place in articles published in specialized and interdisciplinary journals. As LLL2010 will undertake a number of original studies, the data, questionnaires and codebooks, and all the other relevant materials generated in the project will be made available to the scientific community at large.

## Research Institutions in LLL2010 Consortium

1. Institute for International and Social Studies, Tallinn University, Estonia
2. Higher Institute for Labour Studies, Catholic University of Leuven, Belgium
3. University of Nottingham, England, United Kingdom
4. Moray House School of Education, University of Edinburgh, Scotland, United Kingdom
5. Educational Disadvantage Centre, Centre for Human Development at St. Patrick's College, Dublin City University, Ireland
6. Fafo Institute for Labour and Social Research, Oslo, Norway
7. Slovenian Institute for Adult Education, Ljubljana, Slovenia
8. TÁRKI Social Research Centre, Budapest, Hungary
9. Centre for International Relations and Studies, Mykolo Romeris University, Vilnius, Lithuania
10. Institute of Sociology, Sofia, Bulgaria
11. St. Petersburg State University: Department of Sociology, Department of Retraining and Improvement of Professional Skills for Sociology and Social Work, Russia
12. 3s research laboratory, Vienna / Danube University, Krems, Austria
13. The National Training Fund, Prague, Czech Republic
14. Institute for Social Research, Vilnius, Lithuania

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