Mapping of VET educational policies and practices for social inclusion and social cohesion in the Western Balkans, Turkey and Israel

Country report: Serbia

A project implemented with the support of LSE Enterprise

AUTHORS

Dr Iskra MAKSIMOVIĆ
Assistant Professor
Faculty of Economics, Finance and Administration, University of Singidunum
E-mail: imaksimovic@fefa.edu.rs

Ms Gabriela BRATIC
Freelance Consultant
Email: gabrielabractic@yahoo.com

The Research Team:

- Ms Mirjana BOJANIĆ, Institute for Development of Education
- Dr Slavica JAŠIĆ, Ministry of Education, Science and Technological Development
- Mr Nebojša SAMČEVIĆ , Škola za dizajn tekstila i kože, Novi Pazar (VET school for design of textile and leather, Novi Pazar)
- Mr Jugoslav BOGDANOVIĆ , Hemijsko prehrambeno-tekstilna škola Uroš Predić, Zrenjanin (Chemical, food processing and textile school "Uroš Predić" Zrenjanin)
- Mr Nenad MLADENOVIĆ , TEHNOART, Škola za mašinstvo i umetničke zanate, Beograd (TEHNOART, Mechanical engineering school and art apprenticeship, Belgrade)

This country study is part of the project entitled Mapping of VET educational policies and practices for social inclusion and social cohesion for the European Training Foundation (Contract No. CON/12/ETF/0012).

SERBIA

CONTENTS

ACRONYMS

ALMM	Active labour market measures
ALMP	Active labour market policy
CVEAE	Council for Vocational Education and Adult Education
ETF	European Training Foundation
IIE–	Institute for Improvement of Education
IQAE	Institute for Quality Assessment of Education
LFS	Labour Force Survey
MOESTD	Ministry of Education, Science and Technological Development
MOLESP	Ministry of Labour, Employment and Social Policy
NEC	National Education Council
NES	National Employment Service
RSO	Republican Statistical Office
RTC	Regional Training Centres
SC	Sector-level councils
SHS	Survey of Household Spending
SVET	Secondary vocational education and training
VET	Vocational education and training
TSIPR	Team for social inclusion and poverty reduction

EXECUTIVE SUMMARY

This country report on mapping VET educational policies and practices for social inclusion and social cohesion in Serbia provides the basic elements for understanding the conditions and possibilities for an inclusive approach in vocational education in Serbia. The report analyses the main characteristics of vocational education in Serbia, the trends in reforms, problems and main limitations for the development of vocational education. These findings are considered from the point of view of effectiveness of social inclusion policies, and the possibilities for achieving social inclusion and cohesion in vocational education.

The main findings of the research show that the key issues of development of vocational education in Serbia are very much connected with the issues of social inclusion – directly and indirectly, and that, practically, every segment of the current of development of vocational education in Serbia includes also elements of inclusive education. That is, the development and reform of vocational education directly integrate the overall aspect of social inclusion and cohesion, and social inclusion can hardly be viewed in isolation from other segments of the development and reform of vocational education. This is valid for the system as a whole, as well as for practical implementation.

The main conclusion is that the vocational education is open for all students and that this is organisationally well regulated, so that young people from all socially disadvantaged groups and ethnic minorities have the same possibilities of enrolment in vocational schools. While national policy both in vocational education and the social inclusion areas is well founded and all the strategic documents promote the introduction of an inclusive approach in the system as a whole, the implementation of this policy and the possibilities of its realisation are limited, facing difficulties and insufficient results. At the same time, the difficulties and problems that are reflected on the vocational education system (economic conditions, labour market characteristics, unemployment, non-rational network of vocational schools, demographic decline in student numbers, decline in the quality of education, and insufficient practice) create additional limitations for students from disadvantaged groups and ethnic minorities. That is also why the government measures for these student categories are implemented with more difficulty or remain unused.

Accordingly, the main conclusion is that all the decision-makers and stakeholders in the VET system, while projecting reforms and modernisation of vocational education, need to adopt special measures for protecting students from socially disadvantaged categories, and that social inclusion in vocational education should essentially become an integral component of the whole discourse on vocational education – not an isolated part, but an integral element of the vocational education system. The role of vocational education is to promote, develop and enable an inclusive education approach and to provide each student with the greatest chances to acquire education, knowledge, skills and abilities to fulfil their own professional and personal goals. These are the responsibilities of stakeholders at the national level, as well as of actors at the local level.

Introduction

This country report on mapping vocational educational policies and practices for social inclusion and social cohesion in Serbia provides the basic elements for a review, as well as understanding of the conditions and possibilities for the development of an inclusive approach in vocational education in Serbia. In this context, policy considerations of social inclusion and social cohesion within vocational education become especially important, and raise questions such as how to harmonize individual preferences when it comes to choosing educational profiles and employment opportunities and achieve professional and personal satisfaction.

The project implementers defined the following basic theoretical interpretation and understanding of the main terms of social inclusion and social cohesion:

- **Social inclusion** – policies to address the phenomenon of *social exclusion*.
- **Social exclusion** – "multiple deprivation" – beyond income poverty – occurs at individual or family level - it is a form of discrimination.
- **Social cohesion** – policy solution to the phenomenon of social conflict and alienation – occurs at social level – "cycle of deprivation" – refers to the way VET system reproduces social inequality.

One of the contributions of this project, with all the differences and difficulties of reaching a common understanding and definition of the basic concepts, is the fact that the study, especially the empirical study of these issues in the field of VET, has rarely been undertaken, and there are not enough reliable findings and results on the basis of which the basic issues, topics and problems in terms of social inclusion could be clearly established. Serbia's main challenges in further developing inclusive education are summarised in the '*Roadmap for Inclusive Education*' developed by the Ministry of Education in 2008[1], which identifies the medium-term needs.

[1] Inclusive Education: Roadmap, National Report of the Republic of Serbia, Ministry of Education (2008)

1. Institutional framework and the policy process at national level

The education system in Serbia consists of pre-school, elementary, secondary and higher education with around 1,400,000 pupils, children and students and around 102,000 employed professional staff (teaching staff, pedagogues, psychologists, social workers and special education pedagogues)[2]. Following the preparatory pre-school programme and eight-year primary education the secondary education consists of the general stream in 4-year general education school (gymnasia) with 22% of students, and the VET stream with 74% of students (in four-year technical pathways and in three-year vocational ones) (Fetsi, 2007).

VET in Serbia is one of the most developed parts of the system and including a very extensive network of 327 secondary vocational schools with about 250 three-and four-year profiles in 12 sectors (MOESTD,2010/2011).

Serbia also has 35 private secondary schools (gymnasia and vocational schools). There are 33 public and 34 private higher education institutions, with gross enrolment ratio 43% (Vukasovic et al, 2009)[3]. Also, there were 41 art secondary schools and 29 special secondary schools (for students with special needs).

1.1 Situation analysis

According to the information for school year 2009/2010, there were 211,618 pupils enrolled in secondary vocational schools. The most commonly chosen occupational sector is Economy, Law and Administration – 13.24%, followed by Mechanical Engineering – 10.46%, Electrical Engineering – 9.88%, Trade, Hospitality and Tourism – 9.35% and Health – 8.20% (more than half of the primary school graduates oriented for VET /choose one of these five occupational sectors). The introduction of pilot classes (58% of vocational schools have at least one pilot class, with the coverage of about 15% of pupils in the system) has additionally contributed to the attractiveness of vocational schools (the required number of points to enrol in pilot classes is often higher than that required for general secondary schools, MOESTD - Results of Secondary School Admission Examinations 2005-2010).

[2] The Chart of System of Education in Serbia in Appendix 1
[3] ETF, HRD in Serbia, 2010

One of the findings of the research (MOESTD, 2012) is that the structure of VET in terms of duration shifted towards four-year education in terms of the total number of secondary-school students in the period 2001-2006. The share of three-year educational profile declined by about 4%, while the share of four-year profiles increased - also by 4%. Similarly as in previous years, enrolment-quota-fulfilment figures have shown that the majority of students are interested in the sector related to health care and economy, while the sectors of mechanical engineering, civil engineering, wood processing and agriculture attracted the least number of candidates. It is evident that four-year VET is more popular than the three-year option because it enables students to progress into higher education. Educational profiles in other sectors remain empty and especially in the situation of a significant reduction in the number of students enrolling in a vocational school. Demographic decline of young people in Serbia becomes a significant factor in any analysis of VET. Serbia is, according to the 2002 Census, one of the "oldest" countries in the world, with every sixth person aged over 65. It is expected that a quarter of the population will belong to that category by the second quarter of the century.

On the other hand, the population aged under 15, whose number has been in decline since 1995, will continue to shrink in both absolute terms and as a share of the overall population.[4] The demographics' impact on the VET (and general secondary school too) population in the medium term is fairly certain, since the children who will make up the school population between years 2012 and 2017 are already born and death rates in this age group are very low. If all other factors (duration of schooling, dropout, and participation rate) remain the same, the population of students in secondary schools will go down by 10.3% by 2012, and by 22.2% by 2017, compared to 2007 levels (West and Peer, 2011).[5]

This demographic trend has directly impact on social cohesion and inclusion in VET, because the reduction of number of students in secondary schools raises the question of the quality of vocational education, its mobility, and compliance with labour market needs and opportunities for all who wish to be trained for a particular profile. In interviews at the national level, the issue of reducing the number of students and the core problem of the concentration of students in some sectors highlighted as a

[4] "Demographic Review: Serbia in the Mid-21st Century – Depopulated and Old?", No.25/2007
[5] "Rationalisation of Serbian Secondary School System", John West and Andre Peer

feature of the current system of VET. Access and attractiveness of VET are apparently satisfactory, but its structure is a generator of unemployment, because it creates professionals whose work is not in demand in the labour market. There are no systematic data on the effectiveness of, number of persons who have continued with further education after leaving secondary vocational education system, who received additional training, retraining or additional training or managed to get employed (Interviews at the national level).

In addition to the demographic aspects that directly affect the current level of VET development, the second major issue is the employment or, rather, unemployment, particularly among the youth between 15 and 30 years of age (Interviews at the local level, ETF report Torino 2012). As a consequence of this, the number of employed persons and the employment rate have been in constant decline in the period 2009-2011, while the number of unemployed persons and the unemployment rate have been increasing since 2008, due to the effects of the economic crisis on the labour market. A delayed entrance into the world of work can have serious social consequences for young people, including risk of poverty and reduced employability as skills become obsolete. Work in the informal economy is also characteristic for this age group, as well as acceptance of over qualification. Even though some young people find decent, steady employment sooner or later, some of them remain trapped in temporary and low-paid jobs for a long time.

Proportionately, young people (15-30) are well covered by ALMPs relative to the population of NES clients as a whole; 66,986 young people, or 34% of the total number of young unemployed registered with NES, benefited from ALMPs in 2010, compared to 64,762 in 2009 (33%).

The high share of people with secondary education in the total number of unemployed registered with NES (54.3%), as well as the high share of people with low or no qualifications (33.5%), provides further evidence that the level of qualifications of the population does not meet the requirements of the economy. The unemployment rate falls considerably with age – it is at its highest in the youngest age group, i.e. the young (15–24). The youth unemployment rate has been growing since 2008 and in 2011 it reached 50.9%, which means that one in two young people in Serbia are unemployed.

The challenges summarised in the previous section require different structuring and organisation of VET and provide the future labour force with knowledge, skills and competences required in the modern economy. The current structure is still characterised by a high number of over-specialised and out-dated profiles, which correspond neither to the state of technological advancement, nor to the needs of modern businesses, which require individuals who are highly adaptable, equipped not only with technical but also with soft skills (communication skills, problem-solving, team work and self-discipline) and are capable of performing routine tasks, as well as solving unexpected problems (Focus groups in all three locations).

In this context, policy considerations of social inclusion and social cohesion within VET become especially important, and raise questions such as how to harmonize individual preferences when it comes to choosing educational profiles and employment opportunities and achieve professional and personal satisfaction.

1.2 The institutional framework for vocational education

The institutional framework in VET involves three key institutions – MOESTD, CVEAE and NEC. The duties of MOESTD are governed by Article 12 of the Law on Ministries (Official Gazette of the republic of Serbia No. 16/11), which states that MOESTD shall be in charge of public administration duties relating *inter alia* to research, planning, administrative inspection and development of secondary education, evaluation of staff skills, social security of talented students and students with special needs and participation in the development, equipping and maintenance of facilities for secondary education.

However, the educational councils (National Council for Higher Education, National Education Council, and Council for VET and Adult Education) are becoming important multi-stakeholder governing and advisory bodies. The Council for VET and Adult Education (CVEAE) is responsible for a large agenda, among other things for monitoring and analysing VET and adult education, for proposing educational profiles, qualifications framework, standards and curricula, and for securing better links between education, employment and economic development. The challenge will be to develop the capacity of and provide sufficient support to the Council for these demanding tasks.

CVEAE was set up pursuant to a decision of the Government of Serbia of 5 May 2010. It has 21 members, including: representatives of the Chamber of Commerce, craftsmen, employers' association, vocational education experts, representatives of labour, employment and social policy institutions, vocational school teachers and members of representative trade unions. The Council should contribute to the development of human resources needed to create a knowledge-based economy and society built around the principles of lifelong learning. The Council ensures the involvement of all stakeholders in the development of vocational education and adult education in line with the needs and expectations of the labour market. It connects the world of work and the world of employment and participates in the development and management of the vocational education and adult education system.

The key institution in the drafting of technical documents for the implementation of vocational education is the Institute for Improvement of Education (IIE). Other key actors in vocational education are the Serbian Chamber of Commerce, the Social and Economic Council, trade unions, the Employers' Association and Sector-level Councils.

For the development of social inclusion policies, the government in July 2009 established the Social Inclusion and Poverty Reduction Unit (SIPRU), which is responsible for strengthening capacity to develop social inclusion policies based on best practices in the EU. In early 2010, the government established a Working Group on social inclusion, which brings together representatives of government institutions with key responsibilities for social inclusion policies and which consults with organizations involved in issues of social inclusion with non-governmental stakeholders. SIPRU has released a series of researches, reports and findings on social inclusion in various areas, but none specifically related to vocational education and social inclusion.

1.3 The policy process and the policy debate

1.3.1 Policy approaches

The Ministry of Education is committed to the development of inclusive education policies to ensure that all children have a fair access to education and learning

opportunities to develop their potential[6]. Social inclusion, as an educational philosophy and policy, became fully-fledged when the Law on the Foundations of the Education System came into force 2009. The Law promotes inclusive education, adhering to the principles of equal opportunities and accessibility, based on non-discrimination and freedom of choice as to the language of teaching. Policy discussions about the development of VET in Serbia are still defining its development especially in the context of social inclusion was carried out in two directions:

- Development of a new education development strategy and action planning of activities for its implementation,
- Summarizing the process of pilot phase in VET reform and completion of the results.

The Strategy for Development of Education introduces the concept of social inclusion in two ways. One is a specific approach and the other a strategic approach relating to persons with disability and developmental disabilities, people with learning disabilities and people from underprivileged backgrounds and social groups and their full right to quality education, and education with respect to their specificity (OECD classification). The fundamental strategic goal in education is an inclusive approach that ensures their social inclusion.

Some significant developments in inclusive education have taken place through various projects to build the capacity of schools for implementing inclusive practices. The embryo of a quality assurance system has been developed, with mechanisms for evaluation and self-evaluation of the work of schools, as well as several handbooks and guides[7] about inclusive education and development of inclusive culture and practice in educational institutions. Scholarships are being increasingly awarded to students from different vulnerable groups. Cooperation and coordination among the social welfare, education and health care systems has begun regarding the issues of inclusive education.

[6] The principle of equity in education is enshrined in the Serbian Constitution and in a number of international conventions, which Serbia has ratified. The new Law on Foundations of System of Education promotes inclusive education and the use of Individual Educational Plan. There is no strategy for inclusive education, although drafts were prepared in 2002 and in 2006 but eventually never adopted. There is, however, a roadmap for inclusive education (Ministry of Education, 2008).

[7] The '*Guide to the Advancing Inclusive Educational Practice'* provides 6 criteria and 32 indicators of good inclusive educational practice, piloted in 5 pre-schools and in 26 primary schools. The '*Handbook on Inclusive School Development*' was prepared to guide self-evaluation of concrete inclusive aspects in 7 areas.

The Ministry has recently launched a survey, in order to assess the extent and causes of dropout across schools in Serbia, which will provide a solid basis for designing preventive actions. A grant scheme under the World Bank DILS programme will assist schools to develop capacities for inclusive education, with a focus on children with disabilities, Roma children and children from rural areas. The DILS programme is also developing mechanisms to increase access and quality of education for vulnerable groups on all educational levels (children requiring hospital treatment, children with learning disabilities and children from disadvantaged groups). The Ministry of Education, through the DILS programme, has also recently started a massive training programme for teachers in primary and secondary schools, which will increase skills and knowledge in inclusive approaches, the development and implementation of individual educational plans and the application of an individualised education approach. A pool of 100 professional trainers has been selected and it is planned that training will cover 22,650 participants being 15,875 people 7,500 staff including teachers and school directors.

The IPA 2009 project *'Education for all'* will promote education among Roma children. The project focuses on building the capacity of the 178 pedagogical assistants currently operating in pre-school and school institutions across Serbia[8]. Their role is to provide support to children from all vulnerable groups (predominantly Roma and children with disabilities). The IPA 2008 '*Implementation of pre-school education'* will support 15 selected Local Self-Governments (LSGs) in developing their network of pre-schools and improve access of vulnerable groups to pre-schools.

The system of special education is also relevant to this discussion. The education system in Serbia defines special education as a systematic form of education for all categories of children and young people with special needs. The system[9] is regulated by laws and regulations and includes all the elements necessary for its implementation. Research conducted by MOESTD and professional association (OPI, draft 2012) revealed that approximately 80% of Roma children and youth are institutionally segregated in special schools for children with mild intellectual

[8] All pedagogical assistants have completed the introduction training, and in the course of the project will complete modularised training for which a Rulebook was adopted in December 2010
[9] See education system in Serbia , Appendix 3

disabilities. Children with disabilities are predominantly educated in special schools,[10] or in special classes in regular schools[11], mainly located in large towns, with almost no chance to transfer to mainstream schools. Medical solutions prevail over inclusive approaches. On the other hand, children with special needs[12] in mainstream schools do not receive extra support through additional programmes tailored to their needs to ensure their success. Professional development for staff working with children with special needs is almost non-existent in mainstream schools, but neither is it much available in special schools. Children who have completed special schools often do not continue at school. The few of them who attend secondary education programmes in special schools rarely acquire the right skills to find a job.[13]

Taking into account these approaches exist following two models of education:

- Inclusive education
- Special education (in special educational institutions)

It is expected that the model of inclusive education will apply to all persons from underprivileged backgrounds and for all people with special needs. Including people in a model of inclusive education and gradually translating certain categories from the special education model into a model of inclusive education, especially for people with disabilities, will be decided based on the opinions of experts and carried out after all requirements for translating it including provision of additional funding, preparing institutions and providing special assistance to those with more such persons, training of staff, provision of adapted physical and other conditions, the development of appropriate programs (including individual education plans), learning resources and technical tools, providing special support systems (including personal / pedagogical assistants). With the introduction of the inclusive education model, the institutions of special education will necessarily change their character in terms of clients, and will have a new role as a specific resource.

[10] These schools are specialized for educating children with mental, physical and/or sensory disabilities, and children are referred to the school based on a doctor's commissions' referral.
[11] Special classes existed in 90 regular elementary schools in the academic year 2007/2008.
[12] Children with relatively minor disabilities, borderline intellectual capabilities, difficulties in reception and expression of speech, bodily disabled, chronically ill, hyperactive, hypoactive children, with emotional difficulties, with behavioral difficulties, children from socially disadvantaged backgrounds
[13] Ibid

1.3.2 VET reform and social inclusion

Taking in consideration understanding and interpretation of definition of social inclusion in official documents and based on the results and evidence in current VET reform we can draw a few key issues that are directly related to social inclusion. These are:

- Enrolment in the three-year or four-year profiles and attractiveness
- The transition from education to work
- Early school leaving and dropout

Enrolment and attractiveness: Enrolment data from the Ministry of Education[14] reveal, among other things, a huge gap in attractiveness between four-year profiles that give access to higher education, and three-year profiles. As in previous years, enrolment quota fulfilment figures have shown that the majority of pupils are interested in fields related to health care and economy, while the fields of mechanical engineering, civil engineering, wood processing and agriculture attracted the least candidates. It is evident that the revised pilot profiles are far more attractive than vocations that are not included in the pilot profiles. Fulfilment rates of 100% were reported for 68 of the 140 four-year educational profiles (naerly 50%) and for only 7 of the 92 three-year educational profiles (less than 10%). Greater employability and higher earning potential appear to be the decisive factors on which pupils base their decisions. It is rather telling that 31 three-year educational profiles (or 30% of the total number of three-year profiles) have fulfilment rates below 50%. It is evident that four-year secondary education is more popular than the three-year option because it enables pupils to progress into higher education. (This orientation from four-year profiles to higher education is visible in students' answers in all three schools included in this study – see below).

These figures might indicate that pupils are increasingly receiving better education, as the duration of education increases, and given that new technologies require more sophisticated education this trend would be seen as positive in any country. However, according to labour market data, there are educational profiles that are in demand by the economy and yet the enrolment quotas for them remain unfulfilled because the

[14] Enrolment in Secondary Schools 2009/10, unpublished.

number of options on offer to pupils is too high (the total enrolment quota available to pupils who enrol in secondary education is about 10% higher than the actual number of candidates, so that not all educational profiles are fulfilled).

Early school leaving and dropout of young persons aged 15-18 from secondary education is estimated to affect about 15.8% of this population group, who consequently have no formally recognized qualifications. Youth dropout rates are much higher in three-year than in four-year education. To reduce dropout rates, especially in three-year education, the government has implemented a number of systemic measures through new legislative provisions, including free education for persons older than 17 years to acquire their first qualifications. The enrolment of these persons is supported by a public campaign and a call for all those who dropped out of secondary education at any time to continue their education in secondary schools nearest to their place of residence. This process is under development and response rates and enrolment are increasing every year. The new Law enables secondary schools to offer, in addition to general, vocational and art education, also any of the following:

- Two-year work training programmes offering lower vocational education qualifications
- Vocational training programmes of up to one year
- Labour market training programmes of up to one year, after which the trainees receive a certificate of training for specific jobs in the labour market
- Specialist and craftsmen's education programmes

Transition from school to work: In the course of 2009[15], a survey of labour market entry by young persons was carried out for the first time, together with the Labour Force Survey. The survey, carried out by the Republic Statistical Office, with Eurostat's support, revealed that about 40% of young persons wait for their first job for more than two years, while on the other hand about 30% of young persons manage to find work in the first six months after graduation. This seems to indicate it will be necessary to provide more intensive support to youth employment in the

[15] Labour Force Survey, 2009

period immediately following their first six months in the labour market. Because of poor employment outlook, young people in Serbia tend to remain in education longer than their EU peers (the majority of young persons aged 20–24 were still in education). The survey also revealed that the duration of school-to-work transition decreases as educational attainment increases. In addition to career guidance and counselling, other programmes have also been developed to address the current situation.

The Ministry of Education has been leading the reform of the VET system since 2002 piloting the revision of 72 out of 327 educational profiles across 12 occupational sectors, all of which have been fully revised[16] in line with new occupational standards agreed with representatives from the relevant industries through a consultation process. In parallel, new competence-based and outcome-oriented modular curricula have been developed. Revised profiles were piloted in 157 vocational schools with accompanying support, training of teachers and new equipment. Early evaluations of the pilot show an increased attendance and higher average marks for students taught with modernised curricula[17].[18] Moreover, 86.1% of school representatives think that the pilot profile is much better than classical one, 13.4% think that the pilot profile and the classical profile are more or less the same, and only 0.5% think that the classical profile is better than the pilot one[19] (Institute for Improvement of Education, Monitoring of Pilots Report, 2009). However, since the experimental profiles cover only about 15% of students in vocational schools, most students remain in the framework of the classical profiles.

2. VET practices for social inclusion at the local level

2.1 Methodology

In accordance with the principles of action research the research team (Dr. Iskra Maksimovic, Slavica Jašic, Gabriela Bratic and Mirjana Bojanic) prepared an action plan for realisation of the research. A National Advisory Board (NAB) was established

[16] Only 6 of pilot profiles all are not competence based and outcome oriented modular curricula
[17] 70-80% in metal processing and agricultural schools of students have found employment within three months after graduation.
[18] 70-80% in metal processing and agricultural schools of students have found employment within three months after graduation.
[19] Comparative analysis of 22 classical and reformed profiles

in November 2012 and brought together key policy makers in vocational education and social inclusion. The NAB consisted of official representatives from MOESTD, MLESP, NES, IIE, TISPR, three directors from vocational schools and researchers involved in the project. The first meeting of the NAB was held in mid-November and by the end of November and early December, NAB had implemented a series of three meetings at which questionnaires were analysed and agreed to complete the implementation procedures of research. At the first meeting of the National Advisory Board, with the participation of the MOESTD, a partial modification of the questionnaires for students and teachers was agreed in order to comply with the terms of vocational education in Serbia. The changes have not altered concept of the questionnaires. In some questions has been adapted terminology in accordance with education system in Serbia. In line with these changes, MOESTD has approved to conduct research in three vocational schools and supported the project. Other instruments that were used in the interviews and focus groups were fully consistent with the proposed solutions by the central research team at LSE.

MOESTD helped achieve this research through regional school departments. The school directors have proposed the organization of focus group and interview participants at the local level. The implementation of research and interviews was carried out at the local level in January and early February 2013. Interviews at the national level included representatives from NEC, IIE, CVAE, MOESTD, and MLESP. In some interviews took part are more individuals (MOESTD). In total there were 7 interviews on national level.

LABS were established at the end of November, and each school has formed a LAB. LABS mainly included representatives of school administrations, representatives of employers and representatives of local authorities. Interviews were carried out at the local level primarily included directors of other vocational schools, local authorities and practically coincided with the views set forth in the focus groups. A total of 10 participants were interviewed at the local level.

Three focus groups were held in December and there were many difficulties with the organization. Due to the fact that in December there is a winter holiday which is flexible and that in January there are many holidays, it was very difficult to organize

events and focus groups. However, focus groups were carried out with very important debates and made an outstanding contribution to this research.

The second meeting of the NAB proposed that the sample should consists of 100 students from first and final years of three-year and four-year profiles from each school. As for the teachers, it was agreed that each school should select 30 teachers (in general and vocational subjects, and practice). Given the small number of students in some, especially pilot profiles, it was agreed that the directors could engage students from a number of profiles, but in the same class. Eventually, the research included 331 students from I, III and IV grade of 18 educational profiles (99 students Zrenjanin, Novi Pazar 139 students, 93 students Belgrade). The research included 30 teachers from Zrenjanin, 30 teachers from Belgrade and 29 teachers from Novi Pazar.

In this research 99% of the students completed the questionnaire and 100% of the teachers responded to the questions. Questionnaires for students are processed in the SPSS program and were done in two formats:

- The questionnaires were processed for each school for the first and final year for the third year profiles for the first and final year for the fourth year profile
- Arrays of all questionnaires where a joint processing of the cumulative results of all students and answers

Questionnaires for teachers were also processed in two ways:

- The results were processed for teachers for each school separately
- The answers are all clustered as the total cumulative response of all teachers.

Results from focus group and interviews from the local level are grouped based on similarities and shown as a whole. They are processed by qualitative analysis because they contained open-ended questions. The findings are grouped under the principle of frequency and the similarity. Interviews at national level also included open-ended

questions and were processed by quality analyses on the same method - similarity and frequency and are shown as a separate part.

For the purposes of this research and the preparation of the report researchers used analysis of existing literature and data obtained from especially MOESTD, and MLESP and private databases.

2.2 Situation analyses in the case study areas

2.2.1 Contexts of school communities

Chemical, food processing and textile school "Uroš Predić" Zrenjanin

The School "Uros Predic" was opened in 1948. It has about 800 students in 36 sectors, 115 employees, 20 classrooms, two halls for physical education, a library with a reading room and 12,000 books, 6 laboratories, 10 offices, a multimedia classroom, media library, 4 workshops (sewing and weaving), a mini-bakery, a student restaurant and a mini-dairy plant built with an EU grant worth 170,000 euros. A new pilot curriculum, implemented since 2002/03, has been an active part of the reform of secondary vocational education. The most important social partners with whom the school cooperates are the Centre for Vocational and Art Education, the Regional Chamber of Commerce, the National Employment Service, the General Association of Entrepreneurs, the City of Zrenjanin, the Municipality, the Local Economic Development Office, secondary vocational schools in the region, local corporations and companies and the non-governmental organisation sector.

According to data from 2011, the unemployment rate in Zrenjanin was 31.8%, which is far above the average for Serbia (23.3%). Otherwise, the Zrenjanin municipality belongs to the first group of municipalities on development in Serbia. The structure of the economy is largely based on agriculture, food production and processing and metal industry. According to surveys that have been done over the last year (USAID, SERBIA, 2012) employers have expressed the need for employees to have professional knowledge and skills, transferable skills including knowledge of foreign languages, ICT as well as communication skills, negotiation skills, and teamwork. Most employers said that transferable skills are especially needed for those who finish third and fourth year of vocational school. In the town of Zrenjanin, there are

12 vocational schools in the areas of labour, agriculture and food processing, mechanical engineering, electrical engineering, economics, trade and catering and health care.

School of Design, Textile and Leather, Novi Pazar

In the long years of its existence, the school has undergone many changes in order to adapt to the needs of the economy. It changed its name many times from "School of Commerce," to "School for Skilled Workers", to "Education Centre Zenun Haskovic ", which was divided into two schools. It has been called "Leather and Textile School". At the beginning of 2006/07 the Ministry of Education granted permission for the school to be called "School of Design Textile and Leather". The School of Design Leather and Textile educate students for the following occupations:

- Four-years: Designer Clothing, Technician modeller clothing, Ready Technician, Designer leather, Technician modeller leather.
- Three years: Mechanic Textile Machinery, Garment tailor, Cobbler, Haberdasher.

In 2011, the unemployment rate in Novi Pazar was 48.2%, which is well above the national average of 23.3%. Novi Pazar, and the nearby municipalities of Sjenica and Tutin are characterized by very poor educational structure as 59.3% of the population has no qualifications, 31.8% are high school graduates and only 3.4% of the population have a higher education qualification. The economic structure of Novi Pazar is characterized by the dominant role of the industry, especially services. Major industries are textiles, furniture and shoe industries. There are two regional development agencies in the municipality of Novi Pazar. There are local youth offices, and career centres at the two universities. According to a survey carried out by USAID, employers require employees from secondary vocational schools to have broader competences, logical reasoning, and ICT knowledge. Novi Pazar has four vocational schools in area of economy, technique disciplines, textile and leather, and health.

"Tehnoart" Belgrade School of Mechanical Engineering and Art Crafts

Founded in 1962, building on the traditions of the former Mechanical Engineering School, Tehnoart Belgrade is a unique educational institution covers two disparate fields - engineering and art. Tehnoart has 935 students, 38 departments and two areas of work: (i) Engineering and (ii) culture, art and public information. Most students follow a four-year programme, while a minority follow a three-year programme that is gradually being phased out. Entry to the four-year programme (an advanced programme which provides the option of progression to further education) is partly based on an entry exam, and so only the most talented students are admitted (upper secondary education is not compulsory in Serbia).

Since 2011, a "Matura" exam at lower secondary school leaving has replaced the former entrance examination. The selection process also awards students a number of points based on their performance at primary school. Students entering four-year programmes make a list of their preferred schools. These preferences are fed into a computer programme at the Ministry of Education, which allocates students to schools. In contrast, there are no entry requirements for the three-year programme (a more practical vocational programme which does not provide the option of progression to further education). Regarding the Roma minority, the Roma National Council makes a list of students who they propose to study at secondary school, and these have to be admitted without an entrance exam. However, the Roma children from this list rarely turn up at the school (information from interview with school director). Due to the declining population in Serbia as a whole there is a decreasing number of students entering secondary schools each year. Some schools are therefore undersubscribed, but this is not the case for the "Techno Art" School, which is a very popular school.

2.3 Research findings

In this section we report the findings from the student and teacher questionnaires implemented in the three case study schools. The student questionnaire was completed by 331 students in all three schools, in the fist and final years of study. The teacher questionnaire was completed by 89 teachers, of which 56 women and 32 men. With regards to their educational background, 82 teachers have completed university education, 5 have graduated from a higher vocational school, and one had

a high school diploma. The largest number of teachers has been working in this job for1 to 5 years. Half of the teachers (43) had previously worked in the private sector.

The findings of the research are set out in this section. They are organised according to the main research themes of the project including:

- Access to vocational education and training
- Students' experience at school
- Early school leaving and dropout
- Transition from school to work

2.3.1 Access to vocational education

According to the information for school year 2009/2010, there were 211,618 students enrolled in secondary vocational schools. The most commonly chosen occupational field is Economy, Law and Administration, attended by 13.2% of students, followed by Mechanical Engineering (10.5%), Electrical Engineering (9.9%), Trade, Hospitality and Tourism (9.4%), and Medicine (8.2%). More than half of the primary school graduates choose one of these five occupational fields. The key advantage of vocational secondary schools is that they give students the choice of either continuing with their education or finding employment. The introduction of pilot classes (58% of vocational schools have at least one pilot class, with the coverage of about 15% of students in the system) has additionally contributed to the attractiveness of vocational schools and the required number of points to enrol in pilot classes is often higher than that required for general secondary schools *(*MOESTD - Results of Secondary School Admission Examinations 2005-2010).

The structure of vocational education in terms of duration has shifted towards four-year education in the period 2001-2006; within the total number of secondary-school students, the share of three-year educational profiles has declined by about 4%, while the share of four-year profiles has increased, also by 4%; the share of general secondary education has remained at the same level. The largest difference is evident from the gender perspective: out of the total number of students enrolled in three-year educational profiles only 1/3 are females, while the share of female students in general secondary education is 3/5. In four-year educational profiles, both genders

are distributed equally. These data are also reflected in the results from the survey of students and their choice of school, which showed that these three vocational schools were more attractive to boys (59.5%) than to girls.

The question about the **choice of school** received similar answers in all three schools. Almost two thirds of students (62.5%) selected the school they wished to attend on their own, over half of students (54.1%) chose the school with the advice of the family, while only 16.3% followed the advice of friends (multiple answers were allowed). The finding that many students did not independently select the school shows that parents and families play a significant role in the selection of vocational school in which a student will enrol (Diagram 4 in Appendix). A comparison of the **level of education of fathers and mothers** reveals that most of the parents graduated from a vocational school. Therefore it is possible that parents provided guidance on the selection of the school in which their children are enrolled.

Among reasons for choosing the school, the likelihood of gaining future employment stood out as the most important reason for the choice of school for over two fifths of students (42%), the opportunity to continue to higher education was a very important reason for more almost two fifths (37.2%), the continuation of a family business was a very important reason for one third (33.8%) and the subjects on offer were a very important reason for just under one third of students (30.5%) (Diagram 5). The reputation of the school was not a very important reason for many students, while distance from home and the cost of travel was not at all important for most students.

If we sum up the state and student responses, we can conclude that most students choose their vocational school mainly for the reason to gain employment or because it provides a route into further education.

From the perspective of the teachers we can asses their vies on the main factors that contribute to the **attractiveness of their school** which is measured in the teacher survey on a scale from 1 to 5, it is evident that most of the teachers (73%) feel that the school provides a welcoming or very welcoming environment for the students (Diagram 17). A further question asked about teachers' perception of the attractiveness of the schools to different groups of students (Diagram 18). This revealed that schools are less attractive to students with learning difficulties and less

attractive for girls than for boys. Schools are however relatively attractive from poor students, for students with no interest in grammar school (gymnasium), for those enrolled in accordance with their stated choice (first three wishes) and for those who wish to proceed to further education.

2.3.2. Students' experience at school

The aspect of individual experiences related to the **satisfaction** with one's school was positively rated in this survey. That is, almost two thirds of students are more than moderately satisfied with how much they learn at school and believe that it constitutes a good foundation for the future (Diagram 6), while most students believe that the knowledge they gain at school will be useful for them in finding a job in the future (Diagram 7). This result seems to contradict the rather widely held view that vocational schools tend to teach out of date curricula and do not provide students with knowledge and skills that are appropriate for the contemporary labour market. It may be due to the selection process of the schools, in so far as the pool of ten schools proposed in the pre-project meetings between ETF and the national stakeholders might have led to a bias towards the better performing schools in the country. Indeed, as shown above, the Technoart school in Belgrade is a very popular school and it is perhaps therefore not surprising that students have high expectations about their subsequent job prospects.

If we consider the students' ratings of their **school behaviour** and how important it is for them and their environment, it can be seen that the great majority of students (about two thirds) are aware of the extreme importance that their success at school have for their families, their environment, and for their future employment (Diagram 8). Given this, it is revealing that students are not so satisfied with **teaching methods** (Diagram 9) with one half of students reporting that teaching methods are only average, poor or very poor. Student attitudes towards teaching methods and teacher preparedness are similar to the ones expressed in earlier surveys carried out in vocational schools in Serbia (ETF, Key competencies for lifelong learning in Serbia, 2008) and essentially the results of the present survey are very similar to those from the previously mentioned survey. Although five years have passed between these two surveys, the expressed attitudes and results are very similar. What can be interpreted

from this is that the teaching methods are not sufficiently updated and developed. Similar responses were received to the question on how well the teachers know the subjects they teach: three-fifths of students report that teachers have only average, poor or very poor knowledge of their subject (Diagram 10). This suggests that there is great scope for the improvement of teaching practices within the schools. Moreover, more than a half of students report that there is much or very much need for an improvement in the school buildings, while more than two thirds of students report that they see a very great need for the improvement of the equipment used in the schools (Diagram 11).

The answers to the questions on **friendship between students and friendly relationship with teachers** have shown that attitudes and opinions on this topic are divided. The more than half of the students consider that the friendliness of other students and teachers to be either good or very good (Diagram 12). On the other hand there is a minority of about one quarter of students who consider that other students or teachers are very unfriendly. This is a worrying finding, and suggests a highly differentiated experience within school by different groups of students. The reasons for this should be further studied, as it appears that there is a substantial minority of students who are having a poor school experience and may be considered socially excluded within the school system.

Interesting results were found regarding the questions about the **students' leisure activities**. Students spend very little time on their homework and studying at home. A fifth of students (20.5%) do not spend any time at all on their homework, more than half (58.6%) spend only 1 to 5 hours per week on homework, 15.1% spend 5 to 10 hours per week, while only 5.4% spend more than 10 hours per week on homework. These results indicate that most students spend relatively small amounts of time on homework. These data are directly related to the information about the average rating of the success of students for last year (Table 4). The data show that the majority of students had an average rating of 3 (good). Following them is a large group of students with an average rating of 4.

Even less time is spent on some **extracurricular activities**; most students do not participate in any kind of extracurricular activities either in or outside school. More than half of students (55%) participate in sports. While this is a positive finding, it

also implies that almost half of students do not participate in any physical sporting activity. Since hysical activity is important for student health, this suggests that more effort should be placed on providing sport opportunities for the students. Hardly any participate in any other form of extracurricular activities (only one tenth are involved in volunteer work, and a similar proportion in youth clubs). Very few students (less than 10%) said that they participate in other activities, such as the choir, folk dancing, assisting parents in a private company, fitness, music, or preparing for art academy (Diagram 13). These data show that the majority of students have little involvement in extracurricular activities. Since such participation is a good way of building social capital, it seems that the vocational schools do little to promote the sort of extra-curricula activities that would reinforce and develop social cohesion in Serbian society.

The teachers' survey investigated how much and how schools promote social inclusion. When viewed in the value system and ethos, most teachers – over two thirds (68.5%) believe that it is realized to a great extent. In the opinion of more than half of teachers (53.9%) the curricula succeed in promoting social inclusion. Sensitization of students for social justice is a way of promoting social inclusion and in the opinion of more then two fifths of teachers (43.8%) this is substantially realized. Teachers' opinions are divided over how many types of activities like 'Open Door' and 'Day School' are opportunities for promoting social inclusion; almost a third of teachers (32.6%) felt that they were important and almost a quarter (24.7%) that these were very important (Diagram 20). The dimension in which teachers' appear to be most sceptical is therefore in relation to the open door policies of the schools. A significantly higher number of teachers reported that this was an area in which there is little or no support for social inclusion by the schools. Overall, these findings suggest that once students are enrolled in the schools the attention to social inclusion issues is good, but that the teachers' nevertheless do realise that there are problems of access to vocational schools for some excluded groups. This finding suggests a need for further study of the phenomenon of discrimination in access to secondary vocational schools.

In the opinion of the majority of teachers absenteeism from school, lack of motivation and poor discipline are significant problems; two-thirds of teachers think that lack of

motivation is the biggest problem, while three fifths of teachers (61.8%) consider that discipline of students is a major problem (Diagram 23). If we compare the responses of teachers with students' responses, especially when it comes to absences from class see that the attitudes of teachers and students do not match. For teachers, it is a big problem while the students stated that they are very seldom absent from school.

It is often stated that there is a high awareness among the teaching staff of the importance of inclusion of all children, but that in practice they are often ill-equipped to carry out inclusive education measures in their schools. However, our research revealed a very different picture, as teachers in the three case-study schools demonstrated very little awareness of the extent of social exclusion from the education system. Indeed, in the opinion of the teachers and participants in our Focus Groups, vocational schools provide equal opportunities for enrolment and attendance, girls, students from poor families, ethnic minorities, Roma students, students with disabilities or disabled and other socially vulnerable groups. This suggests that there is a need to inform teachers about the extent of social exclusion in education in Serbia and to change attitudes towards disadvantaged students who are excluded from educational opportunities.

2.3.3 Early school leaving and drop out

Serbia is facing a major problem of early school leaving among of young persons aged 15-18; as a result, about one sixth of this population group are not in secondary education and have no formally recognised qualifications. The percentage of early school-leavers is particularly high among the vulnerable groups and particularly among the Roma, children with disabilities, and children from rural areas, especially girls. Youth dropout rates are much higher in three-year than in four-year education (MOESTD, 2009/2010). There is no adequate mechanism to prevent the children from dropping out, in particular during the transitional year between primary and secondary education, when this risk is highest among the children from vulnerable groups. Children who have completed special schools often do not continue at school. Few of those who attend secondary education programmes in special schools acquire the right skills needed to join the labour market.[20]

[20] Ibid.

To reduce dropout rates, especially in three-year education, the government has implemented a number of systemic measures through new legislative provisions including:

- Free extraordinary education for students older than 17 years to acquire a first qualification. Their enrolment is supported by a public campaign and a call for all those who dropped out of secondary education at any time to continue their education in secondary schools nearest to their place of residence. This process is under development and response rates and enrolment are increasing every year.
- Increasing the educational programme offers, and development of programmes of varying duration within the formal system. The new Law enables secondary schools to offer, in addition to general, vocational and art education, also any of the following:
    - Two-year work training programmes offering lower vocational education qualifications
    - Vocational training programmes of up to one year
    - Labour market training programmes of up to one year, after which the trainees receive a certificate of training for specific jobs in the labour market
    - Specialist and craftsmen's education programmes

As indicated above, there are no accurate data on early leaving from education in vocational schools. According to the Living Standards Measurement Survey (LSMS), the dropout rate in secondary education was 2.3% in 2005. However, some other sources state a much higher rate, even as high as 30% for secondary education; this is in stark contrast with the official figures, which are not broken down by age groups of students (Government of Serbia, 2003). According to the data available to the Ministry of Education and Science, a survey covering generations 2000-2008 has found a dropout rate of 7.3%. However, other measurements indicate that 10.0% of Serbia's population did not receive initial SVET (EUROSTAT, 2010). Unlike these figures, LSMS seems to point to the conclusion that **one fifth of Serbian children still do not attend secondary education**, especially boys and young persons

from socially vulnerable areas. As there is no unified information system in education, there is no systemic monitoring of individuals within this system, so these figures need to be taken with caution, or alternatively additional surveys could be carried out to determine the actual situation.

Our survey has shown a somewhat different situation in these three schools; most students said they did not skip classes - 101 (30.5%), 66 students had been absent for one day (19.9%), 47 students for two days (14.2%), 33 students for three days (10%), 11 students for 4 days (3.3%) and only 10 students for 5 days (3%). Only one student had 22 absences. Of course, these are the answers provided by the students, and a more realistic image could probably be formed if the school absence records were compared. In addition, this does not cover the whole range of factors involved in early school leaving as it only addresses the attendance of those who began a course in secondary school, and omits the large number of children who leave the education system at the end of primary education.

2.3.4 Transition from vocational education to work

Considering students' plans upon graduation, the main conclusion is that most students do not have specific plans for the future, as more than half the respondents failed to answer this question (Diagram 14). Among those who provided an answer, the most frequent intention is to pursue higher education followed by those who intend to seek a paid job. The third most frequent intention is a plan to emigrate. Similarly, few students felt able to answer a question concerning how long it would take them to find a job (Diagram 15). Among those who did respond to this question, by far the most considered that it would take them a long time to find a jobm over one year. Only a very small proportion (one fifth) considered that they have much chance of finding a job immediately on graduation, while only another fifth think they have much chance of finding a job within six months. Student responses to this set of questions showed that employment is a serious issue for both the students and the general system of education and economic opportunities in the country.

The majority of the participants in all three focus groups confirmed these attitudes. There is an essential mismatch between the supply of vocational skills and the demand in the labour market; thus, even though some occupations are in high demand, e.g. bricklayers, welders or founders, primary school leavers are not

interested in training for these occupations. On the other hand, persons who acquire these qualifications through formal training often lack the additional competences that would satisfy the requirements of employers or of the respective jobs, which means they need additional training to acquire the necessary knowledge and skills or necessary certificates required for those jobs.

Most participants in the focus groups highlighted that it is difficult for everybody to find a job. If students do internships, the best of them get a job in an easier way, as they usually get employed in the same companies. Students, who finish education in special schools or within special programmes, have difficulties in finding a job. Employers are not happy to hire students from special schools. Prejudice is the reason that Roma children cannot find a job.

In Novi Pazar, the situation is even more complicated. In textile and leather companies, which are mostly in private ownership, there is a demand for the profiles offered in the vocational school, but only a small number of students take these jobs as the job is very hard. An example was mentioned: an employer asked for 30 sewers in textile industry, NES obtained training free of charge and the employer offered 11,000 RSD per month during the training, but only two candidates applied, and they gave up after two months as they found the job to be too exhausting. It was also mentioned that a lot of people have relatives abroad who support them, or many people work in the informal economy, so few are willing to accept a difficult job.

In Zrenjanin, it was stated that it is easier for people from Zrenjanin to find a job. Those from the neighbouring villages have no employment possibility in the village, but the employers in Zrenjanin are not happy to hire them, as they have to pay for their transport.

2.4 Comparative analysis

Analysis of the results obtained with both categories of respondents (students and teachers) showed a high degree of consensus in almost all categories of questions. When comparing the responses of students in all matters we obtained very similar answers. Some minor differences appear in the issues related to the level of student satisfaction in a particular school, the experience of friendship among the students, the importance of the knowledge acquired in school for future work. Most students in

all schools have very similar views with respect to future employment opportunities and are very aware that they cannot easily and quickly get to work. Also, most students still do not have a completely accurate picture of whether to continue education after finishing high school, or will look for a job or do something else. All schools have a significant number of students who considered that knowledge and skills acquired in these schools are useful for future work. However, a small number of students directly and clearly declare to know which work they will do after finishing school. The relationship to future work - whether in the profession for which they have been educated or in another is mostly unclear among students, showing that their professional career development is not sufficiently supported in schools. In first grade students that is understandable, but the final year students have not a clearer picture of how the use of acquired skills and knowledge.

The majority of students are not engaged in extracurricular activities, nor volunteer, work, or work in youth clubs, and very few of them are involved in some social activities.

Most students excepted help from their parents in a future job search, and most would prefer to find a well-paid jobs.

As for the teachers, the surveys showed that the majority of teachers gave similar answers to most questions in all three schools. Most interesting are the responses to questions about career guidance, where the majority of teachers in all three schools answered that they or their colleagues realise it in the schools. But mostly students have not answered on the questions for career guidance, or said that it is poorly developed (rank 1 or 2).

With regard to issues related to social inclusion and especially student and teachers' responses showed a high level of agreement in all three schools. Both students and teachers believe that all three schools offer all the features and requirements for the implementation of social inclusion. That is, in all three schools provide exactly the same conditions, and it enables all categories of students that said that is no limitation for any of the socially vulnerable groups.

3. Action proposals for schools

Vocational school "Uros Predic", Zrenjanin:

- The research showed that students feel a need for improvement in the experience of mutual friendship among the students. This suggests that the school should encourage a variety of extracurricular activities for students because a huge number of students do not participate in these activities, or to volunteer, or in youth clubs.
- We recommend that the school should establish stronger links with employers, employment services, in order to help students to have a clear picture of the needs and opportunities in the labour market.
- In the framework of cooperation with employers we suggest that the school should organise volunteer summer internship that would allow students to participate in volunteer activities, acquire the necessary skills they want to deal with and to gain the necessary practical skills.
- Most students replied that teachers do not give any help or support for future recruitment. This suggests that there is a need for the school to provide support for teachers to become more engaged and involved in the preparation of students in final years for the world of work.
- Many final year students do not have a clear picture of what they will do after graduation from high school. It is therefore particularly important that the Career Centre improves its work with final year students. The school should strengthen and intensify the work of the Career Centre and especially to monitor and guide students in the final year of their preparation for the world of work and future employment.

Vocational school Novi Pazar

- Given the very small number of students who participate in extracurricular activities, it is necessary for the school to take intensive measures to motivate students to participate in extracurricular activities. The school should find methods and techniques to engage students in extracurricular activities, volunteer work and youth clubs.

- The school should promote the importance of volunteer work and to cooperate with the institutions at the centre of Novi Pazar, the Office for Youth and other students to acquire information and a willingness to understand the purpose and goals of volunteer work and joined.
- Many students do not have a clear view of their future employment options, although they do want a well-paying job using the skills that they acquired skills in school. The school should therefore pay special attention to the career development of its students, the continuous extension work with all the students and especially the final year students who, in the majority, do not have a clear picture of what they will do after finishing school.
- The school needs to find and establish a mechanism to be able to assist students in gathering information about employment opportunities and to establish contacts with National Employment Service so that students receive timely information on the labour market situation in Novi Pazar and employment opportunities.
- The school should organize and promote enrolment in villages near Novi Pazar in order to improve a number of students from rural areas.

Tehnoart vocational school, Belgrade

- Very few students participate in extra-curricular activities such as voluntary activities and youth clubs. The school should therefore initiate and develop such extracurricular activities. The school should establish cooperation with the Office for Youth and to initiate activities in which students will attend school.
- Final year students had very different views on their expectations and employment after high school. The school should therefore provide a more effective career service.
- The school needs to build a ramp for students with disabilities and to provide an environment for students who use wheelchairs.

4. Policy recommendations

This section provides policy recommendations derived from the findings of the participatory action research. The recommendations are directed separately at policy makers at national level and local level and to international donor organisations and civil sociality organisations (CSOs) and NGOs.

4.1 Recommendations for policy makers at national level

- The research has found that there are significant problems of early school leaving in Serbia and that perhaps as many as a fifth of young people who leave primary school do not continue their studies in higher secondary education. Teachers consider that the vocational schools are less attractive t students with learning difficulties and that they are less attractive to girls than to boys. All of this suggests that the government should make additional efforts to attract students into vocational secondary schools to encourage and to support enrolment for all young people from socially disadvantaged groups and ethnic minorities in vocational schools through additional scholarships especially for students with learning difficulties and for girls.

- Based on the suggestions from Focus groups, amend the legislation in the area of social policy, which creates difficulties in the enrolment process in vocational schools for individuals from socially disadvantaged families to receive financial assistance.

- The student survey found that students choose to go to vocational school primarily to gain the necessary skills for their future careers and also as a route to further education. They are very much aware of the importance of their education they received for their future well-being. Yet, the research has also found that students evaluate the teaching methods in vocational schools relatively poorly. They also have a similar relatively poor view of the teachers' knowledge of their subject matter. We therefore recommend that urgent action be taken to invest more in the improvement and professional development of teachers in vocational schools.

- The research found that teachers have relatively poor understanding of the ways of working with students with special needs and we therefore recommend that there should be greater support for in-service teacher training regarding work with such students. As suggested in national interviews, the government should put more effort into supporting the network of special schools and classes with individual work plans and propose improvement of the network.

4.2 Recommendations for policy makers at local level

- The research has shown less than two fifths of students consider they have much chance of finding a job within six months after graduating from vocational secondary school. We therefore recommend that much more effort and investment be put into improved career guidance and counselling within schools and into establishing stronger relationships between schools and potential local employers. Schools should also build stronger links with local employers to provide practice to vocational students

- The research has shown that hardly any students engage in extra-curricular activities, other than sports. Participation in youth clubs and voluntary work is almost non-existent. Yet such participation is important in most societies to build the social capital that is the basis of strong and lasting social cohesion. We therefore propose that schools and local communities including local self-governments, local employers and NGOs should develop innovative approaches for extracurricular activities and promote active participation of vocational school students in local activities
- In relation to sports activities, although this is the most frequent form of extra-curricular activity, almost half of students do not engage in any form of physical sporting activity. Considering the importance of sport for student health and well-being we recommend that schools should encourage greater participation of students in sporting activities.

- The research found that while most student experience their school as a friendly and welcoming place to study, a significant minority of students (up to

one quarter) find the atmosphere in their schools to be unfriendly, both in their relations with other students and in their relations with teachers. This worrying finding suggests that there are various social groups that are not benefiting to the full extent possible from their schooling and are to some extent socially excluded within the vocational system. We recommend that the schools consider the implications of this finding and take appropriate measures to improve the school experience for the minority of students who are alienated from their teachers and peers.

Conclusions

The results of the participatory action research show that the current key issues of development of vocational education in Serbia are very much connected with the social inclusion issues both directly and indirectly, and that, essentially, elements of inclusive education are present in every segment of the current vocational education development in Serbia. This can be seen at the strategic level from the various strategic documents for vocational education and the education system in Serbia, from opinions expressed in our national interviews, as well as at the level of practical implementation through our interviews at the local level and the opinions expressed in focus groups.

First conclusion. The main conclusion derived from all the national and local interviews, focus groups, as well as the survey results, is that access to education is systemically, **normatively and organisationally well regulated, and that young people from all socially disadvantaged categories and ethnic minorities have equal possibilities of enrolling in vocational schools**. That is, all of the participants in this project agreed that VET is open and available to everyone and that there are no legal or other restrictions. It is considered that through the government policy on social inclusion and social cohesion all efforts are being made in the right direction, and that the government has adopted important policy documents that promote socially inclusive education. More precisely, the key answer from focus groups and interviews is that although an appropriate policy has

been developed and the system is formally open for all, problems remain in the implementation.

By using special measures and legislation, the government promotes enrolment of members of socially disadvantaged groups with difficulties in accessing education, while students with special needs and Roma people can be enrolled in secondary school under favourable conditions through the health commission, the intersectoral committee, and affirmative action (OPI, 2012; ETF, Torino report 2012). If we were to summarise the access to VET, we could say that it is equal and unlimited for all categories of population. Unfortunately, the implementation shows some difficulties and problems, and the problems at the level of the overall enrolment policy are reflected in the position and possibilities of mobility through the system of students from socially disadvantaged categories.

Second conclusion. According to the Law on Foundations of the System of Education and Upbringing, and the structure of the education system in Serbia, secondary education of students with disabilities can take place in:

- Schools for students with disabilities;
- Special departments for students with disabilities within regular schools

In schools for children with disabilities, a curriculum of lower volume and contents is applied. Special programmes are also carried out for students with mild intellectual disabilities. There were 1,628 children with disabilities enrolled in secondary education in year 2008/2009[21]. In the **network** of special schools and special departments, education is significantly more expensive than in the regular system. The number of employees in special schools has grown dramatically over the past years.

Approximately 80% of Roma children and youth are institutionally segregated in special schools for children with mild intellectual disabilities. Children with disabilities are predominantly educated in special schools[22]or special classes in

[21] Statistical Yearbook (2010), Statistical Office of the Republic of Serbia.
[22] These schools are specialized for educating children with mental, physical and/or sensory disabilities, and children are referred to the school based on a doctor's commissions' referral.

regular schools[23], mainly located in large towns, with almost no possibility to transfer to mainstream schools. Medical solutions prevail over inclusive approaches. On the other hand, children with special needs[24] in mainstream schools do not receive extra support through additional programmes tailored to their needs to ensure their success (information from interviews at the national level). Professional development for staff working with children with special needs is almost non-existent in mainstream, but also in special, kindergartens and schools. [25]

One of the problems of the network of special schools for children and youth with disabilities is that it is not equally spread in all the regions of Serbia. Since a great number of these schools are located in Belgrade and several other bigger towns, at least two different problems arise. On one hand, it means that this kind of education is not equally accessible to all the citizens of Serbia, and on the other hand, this questions the concept according to which the existing special schools should also offer professional support to the inclusion programmes in mainstream secondary vocational schools. Besides this, one of the key aspects is a lack of new updated programmes for children and youth with disabilities (interviews).

There is no adequate mechanism to prevent children from dropping out, in particular during the transition year between primary and secondary education, when this risk is the highest among children from vulnerable groups. Children who have completed special schools often do not continue at school. The few who attend special secondary education programmes in special schools rarely acquire the right skills to join the labour market[26] (MOESTD, report 2011; OPI 2012).

Third conclusion. One of the conclusions derived from the analysis of the implementation of vocational education in Serbia (MOESTD, 2011) has been that the education and training system does not adequately prepare new generations for taking part in the development of a knowledge-based economy capable of withstanding the competitive pressures of a globalised world. PISA results reveal serious shortcomings in the primary and secondary education systems in equipping

[23] Special classes existed in 90 regular elementary schools in the academic year 2007/2008.
[24] Children with relatively minor disabilities, borderline intellectual capabilities, difficulties in reception and expression of speech, bodily disabled, chronically ill, hyperactive, hypoactive children, with emotional difficulties, with behavioral difficulties, children from socially disadvantaged backgrounds
[25] Serbia, Regional Preparatory Workshop on Inclusive Education Eastern and South Eastern Europe, June 2007, UNESCO
[26] Ibid

children with the foundations for learning and the core competences and skills they need to succeed in life. Although the notion of "learning outcomes and competences" is widely spread and accepted by policymakers, experts and training providers, in reality traditional approaches still prevail. Likewise, the vocational education system does not prepare students well for employment and the labour market (information from interviews at national level).

The VET reform inevitably influences and is intertwined with the issues of social inclusion, because most teaching plans and programmes are not sufficiently adjusted to the needs of students, especially of those with special needs. This opens up the questions of inclusive education in vocational schools, the conceptualisation of teaching plans and programmes, and the method of their implementation.

Despite the progress made in a number of pilot schools assisted by the EU programmes in offering training in line with labour market requirements, vocational profiles taught in vocational schools are too often based on out-dated curricula and teaching methods[27]. The lack of effective vocational educaiton and the poor alignment of educational outcomes with the requirements of the economy result in skills mismatches and bottlenecks in the labour market and low employability of the labour force, which translate into high unemployment and inactivity rates. In this context, policies for increasing the competitiveness of the economy and attracting foreign direct investment are difficult to achieve.

Vocational schools still do not offer sufficiently adequate education that would provide knowledge and skills in demand at the labour market (information from focus groups, report from interviews at the national level). The main reasons for the lack of success in this field are obsolete teaching plans and programmes, teachers not participating in continuing professional development programmes, inadequate equipment, unresolved problem of securing work experience outside school through internships as an insufficient number of enterprises is interested in this kind of cooperation with the educational sector.

[27] In the 2009/2010 school year, only 15% of students enrolled in secondary vocational schools were taught according to revised curricula i.e. in line with current occupational standards. MoE, September 2010. See section 2.1.3 for more details on ongoing reforms.

Fourth conclusion. In this context, the issue of social inclusion has additional consequences, given that participants in the education process and the general public are not well informed about the problems and needs of social and ethnic groups, there is a lack of financial support for schools in this field. Moreover, there is a lack of skilled staff to provide support at school to disadvantaged students, particularly in terms of adapting the curriculum and teaching methods in case such a need is identified. Therefore, the general problems in the vocational education system generate additional problem for students from socially disadvantaged families.

Young people aged 15-24 are particularly vulnerable to social exclusion, due to their precarious situation on the labour market, as evidenced by a high level of youth unemployment and low participation of young people in the labour market. Exclusion from the labour market is linked to low levels of qualification and the difficulty to acquire initial working experience. The problem originates in the education system, which fails to equip young people with knowledge and skills required in the economy, is characterised by a high number of dropouts especially in secondary vocational schools, and offers too few opportunities for training and retraining for young adults (information from focus groups).

References

ETF (2010) *Serbia Human Resources Development*, Turin: European Training Foundation

European Commission (2011) *Economic and Fiscal Programmes of Potential Candidate Countries: EU Commission's Assessments*, Directorate-General for Economic and Financial Affairs:

FIC (2011) *White Paper: Proposal for Improvements in Serbia's Business Environment*, Foreign Investors Council: Belgrade

Ministry of Education and Science (2012) *Strategy of Education Development in Serbia by 2020*, Discussion Draft, Belgrade

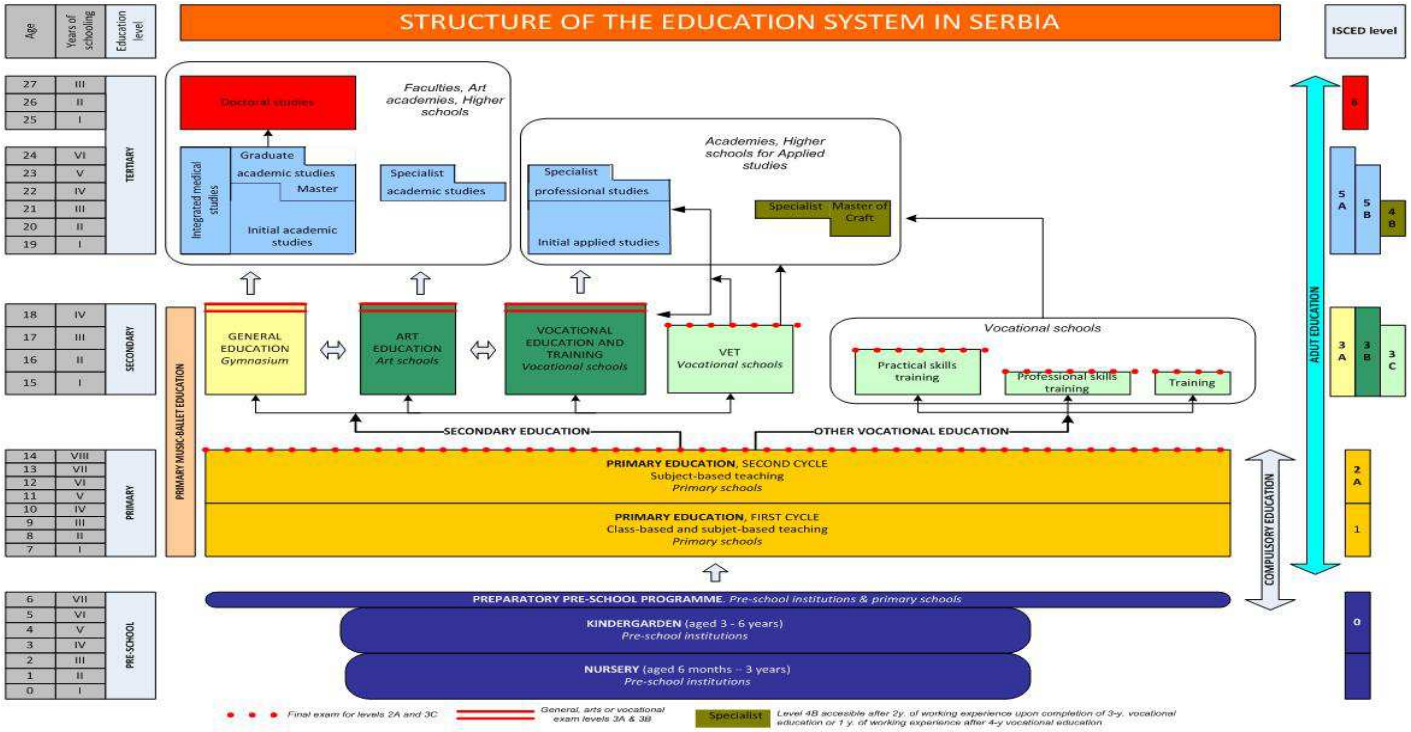
Republic Statistical Office (2011) *Labour Force Survey*, Belgrade

Republic Statistical Office (2011) *Secondary School Education in the Republic of Serbia,* Belgrade

MoE (2008) *Inclusive Education: Roadmap, National Report of the Republic of Serbia*, Belgrade: Ministry of Education

Appendices

Appendix 1: The system of education in Serbia



Appendix 2: The characteristics of the case study schools

Students:

The study sample included 331 students I, III and IV classes and 80 teachers of all categories of subjects. In schools sample structure is as follows:

School	Number of students			
	I class of III year profiles	III class of III year profiles	I class of IV years profiles	IV class of IV year profiles
Prehrambeno hemijsko-tekstilna škola „Uroš Predić“ iz Zrenjanina (Zrenjanin):	20	5	37	37
Srednja škola za dizajn tekstila i kože iz Novog Pazara (Novi Pazar)	76	4		59
TEHNOART, Škola za mašinstvo i umetničke zanate, Beograd (TEHNOART)	10	5	36	42
TOTAL	106	14	73	138

In total, 106 students participated in the first class of three-year educational profiles , 14 third-year student three-year profiles, 73 students from I class of four-year profiles and 138 students of IV class from four-year profiles.
Educational profiles

School	Educational profiles	
	III year	IV year
Prehrambeno hemijsko-tekstilna škola „Uroš Predić“ iz Zrenjanina (Zrenjanin):	Milkman Tailor-fashion experiment Baker Milk processor	Technician for Biotechnology Technician for the pharmaceutical industry. technology Technician for Environmental Protection
Srednja škola za dizajn tekstila i kože iz Novog Pazara (Novi Pazar)	Textile machine mechanic Construction machinery operator	Designer clothes Construction technician Construction technician The tech skin modeler
TEHNOART, Škola za mašinstvo i umetničke zanate, Beograd (TEHNOART)	Mechanic, heating and cooling equipment	Sign painter Sign painter Calligrapher Potter In computer management

The choice of educational profiles sought to encompass the total activity of the school and all areas of work in which the school educates students. So they are represented in all areas of all three schools.

Teachers

School	Number of teachers
Prehrambeno hemijsko-tekstilna škola „Uroš Predic“ iz Zrenjanina (Zrenjanin):	30
Srednja škola za dizajn tekstila i koze iz Novog Pazara (Novi Pazar)	29
TEHNOART, Škola za mašinstvo i umetnicke zanate, Beograd (TEHNOART)	30
Total	89

The study included 89 teachers who teach the general education and vocational subjects and practical training in the first, third and fourth classes. List of subjects taught by teachers:

Analytical Chemistry, Physical Chemistry, Pollution and Protection Of Water
Drawing and Painting, Art, Art Theory
Clothing Design and Modelling
Design Technology
English
Philosophy, Civics
Physics
Building Construction, Computer Applications in Construction, Statics and Strength of Materials, Concrete
Building Materials, Technical Drawing, Mechanics and Foundations, Metal and Wooden Structures
Engraving Art Objects
Chemistry
Chemical Materials
Computer Science, Computer Graphics, Technical Drawing, Material Resistance
Instrumental Analysis, Methods of Analysis
History
Textile Design, Modern Costume
Mathematics and Programming
Mechanics, Descriptive Geometry, Plants, Air Conditioning and Heating, Automation
General and Inorganic Chemistry,
Biochemistry, General and Inorganic Chemistry
Practical Work
Practical Work - Conservation
Practical Work, Materials and Techniques
Orthodox Religious Education
Food Technology

Entrepreneurship, Production Organization, Business Organization
Raw Materials in Baking, Food, People, Chemistry,
Design of Technological Systems, Computer Graphics, Robotics and Automation
Technological System Design, Programming, Hydraulics and Pneumatics
Psychology
Roads, Bridges, Railways, Descriptive Geometry, Computer Applications
Automation and Robotics, Machine Elements of Drawing with Descriptive Geometry
Computing and Informatics, Automatic Data Processing
Elaboration of the Project, the History of Architecture, Descriptive Geometry
Sociology
Serbian Language
Serbian Language, Mathematics, Art
Static and Strength of Materials, Construction Management
Professional Technology of Textile Materials, Textile Materials
Professional Textile Technology Expert
Professional Courses in Goat
Professional Courses in Textile and Computer Applications
Professional Courses in Construction Industry
Technical Drawing and Machine Elements
Technical Drawing With Descriptive Geometry, Programming, Hydraulics and Pneumatics, Mechanical Components, Modelling and Design of Machine Elements
Textile Technology

Appendix 3: Focus Group Participants

Focus group meetings were held according to the following schedule and with the following participants:

Zrenjanin, 28th January 2013:

1. Jugoslav Bogdanovic, director of the vocational school "Uros Predic"
2. Milena Becejac, journalist of the newspaper "Zrenjanin"
3. Snezana Oluski, director of the specialized elementary school "9 maj"
4. Sonja Molkuc, director of vocational school "Nikola Tesla"
5. Pero Knezevic, National Employment Service, director of branch office in Zrenjanin
6. Bojana Acimov, GOMEX ltd, Zrenjanin, executive director of general affairs and HR,
7. Milan Galic, teacher in vocational school "Uros Predic", coordinator of a Roma project
8. Invited, but not attended: representative of the local community, representative of an NGO and the Head of the Regional School Administration Zrenjanin.

Seven persons attended the meeting in Zrenjanin and additional interview was made with all of them.

Novi Pazar, 25th January 2013:

1. Aida Bojadzic, National Employment Service – Branch office in Novi Pazar, PR of the Branch Office and counselor;
2. Sabina Hocanin, Technical school, pedagogue;
3. Muenesa Gilic, Technical school, psychologist;
4. Samocevic Nebojsa, School for Textile and leather design, pedagogue;
5. Meho Camovic, School for Textile and leather design, school principal;
6. Mensur Memic, Head of the Regional School Administration, Novi Pazar.

Six persons involved in VET in Novi Pazar participated and additional interviews were also made with all of them.

Belgrade, 6th February 2013:

1. Dragana Nikolic, deputy principal of Tehnoart school;
2. Zoran Maksimovic, Belgrade municipality Zvezdara – social sector;
3. Sonja Stamenkovic, Belgrade municipality Zvezdara – social and educational sector;
4. Biljana Bukinac, Ministry of Education, Science and Technological Development, Regional School Administration Belgrade;
5. Nenad Mladenovic, principal of Tehnoart school;
6. Anica Spasov, NGO "Nasa kuca";
7. Samika Bjelica, "Ingagradnja" and member of parents' council in Tehnoart school.

Seven persons involved in VET in Belgrade participated and additional interview was made also with each of them.

Appendix 4: Diagrams from survey data

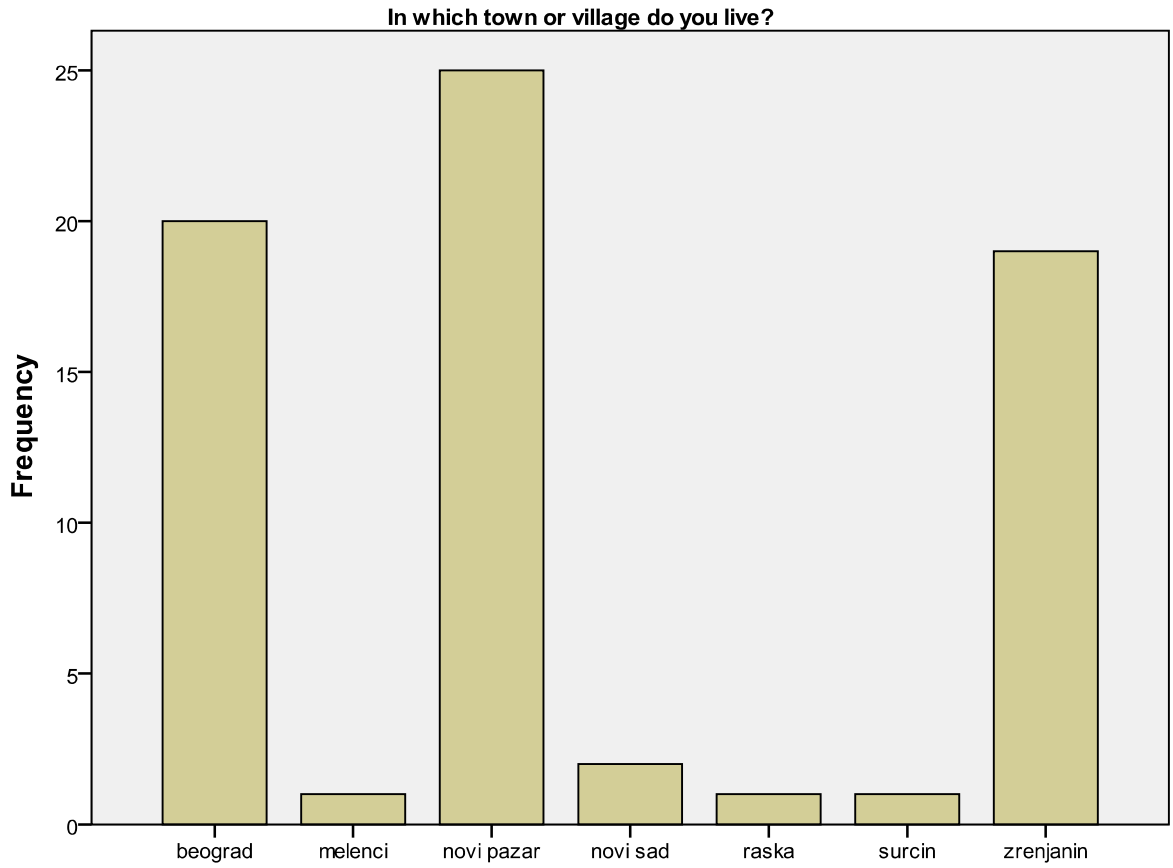


Diagram 2 Conditions for learning at the homes

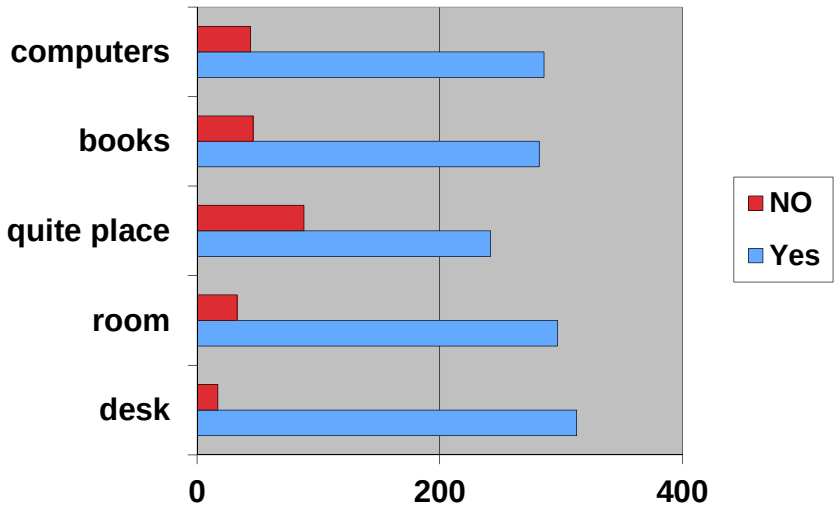


Diagram 3 Mode of travel to school

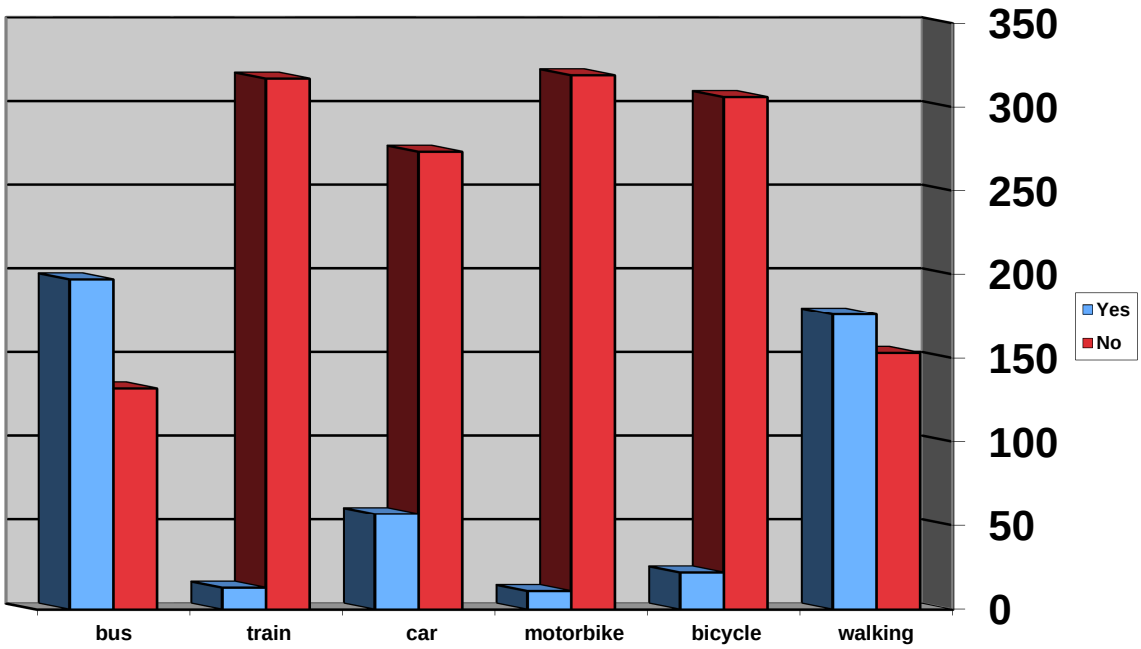


Diagram 4 Influences on the selection of vocational school

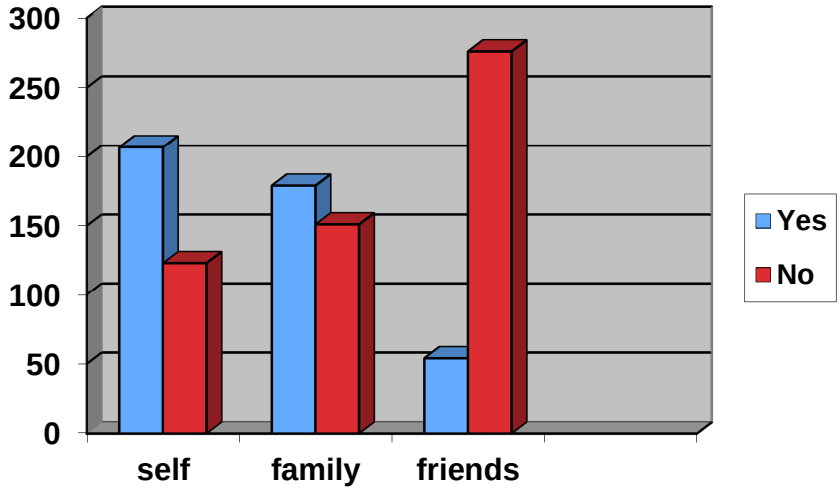
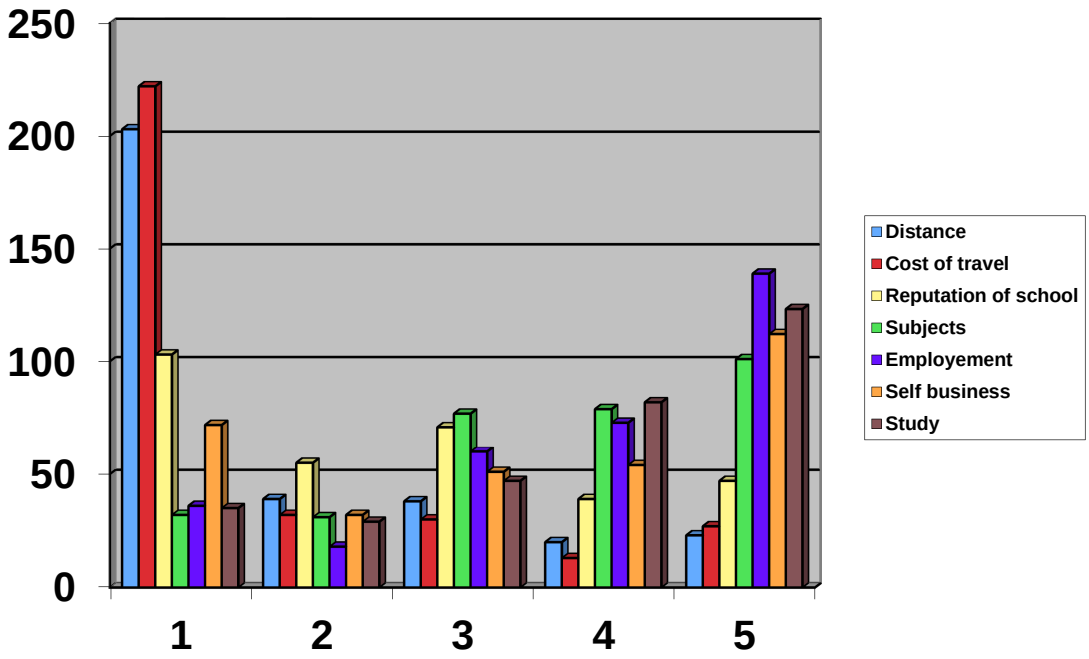
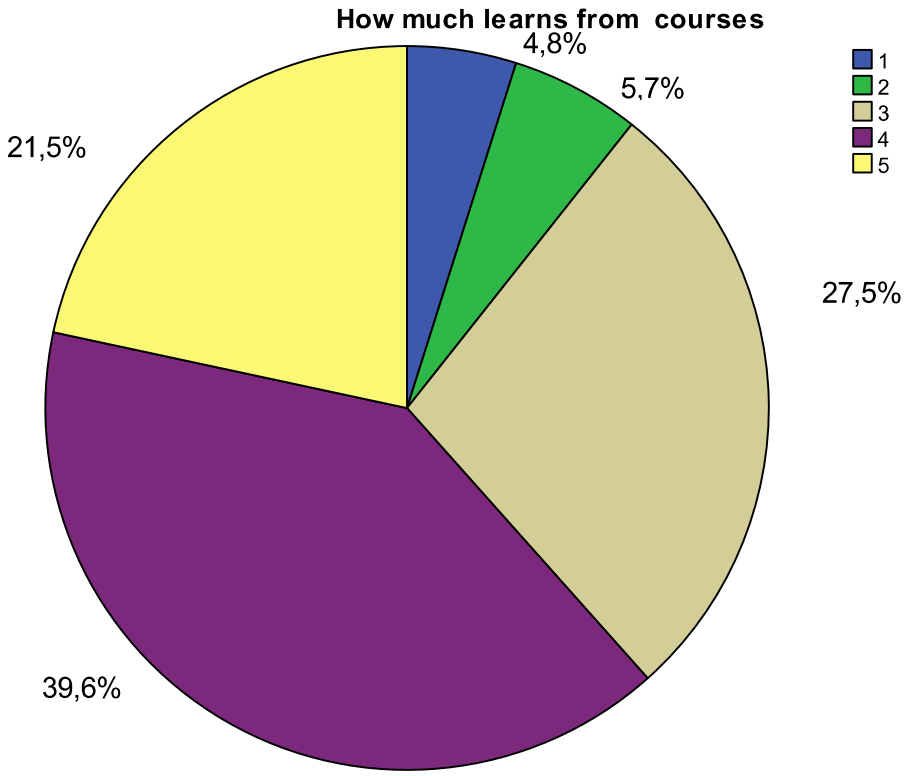


Diagram 5 Reasons for selection of schools



1=not at all important 2= a little important 3= quite important, 4=very important and 5=extremely important

Diagram 6 How much learns in this school



1=nothing, 2=a little, 3=a moderate amount, 4=much, 5=very much

Diagram 7 whether knowledge acquired at school will help in future job

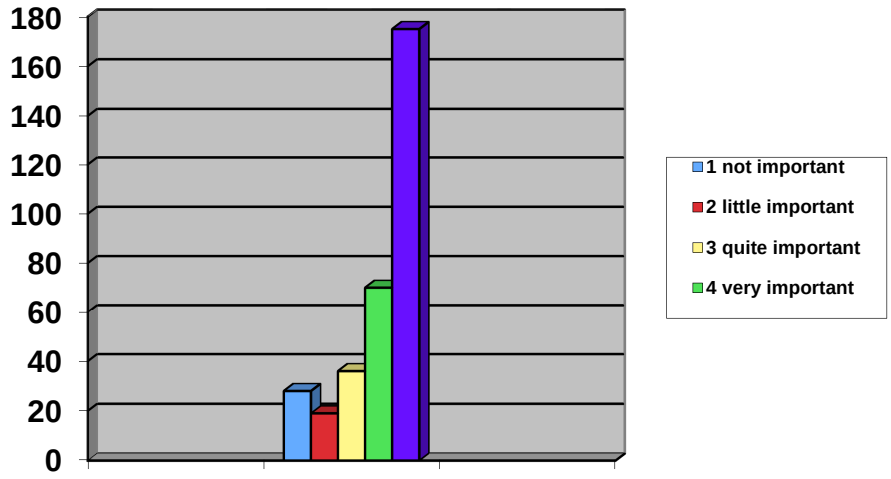


Diagram 8 Importance of doing well in school

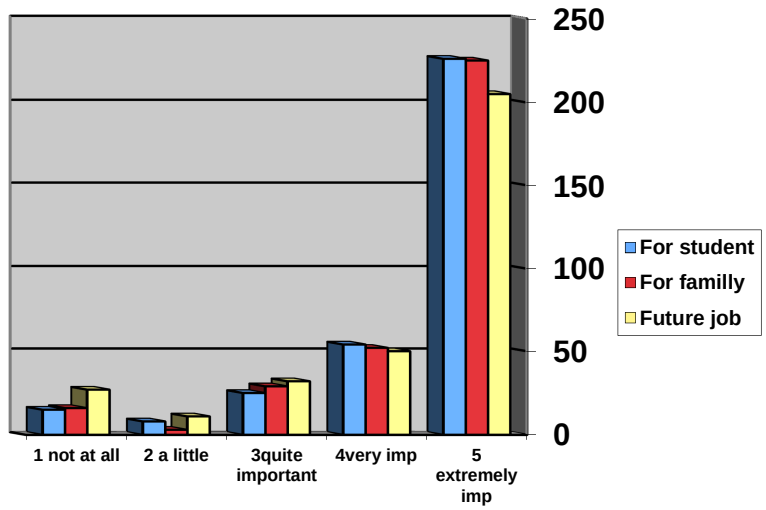


Diagram 9 Teaching methods

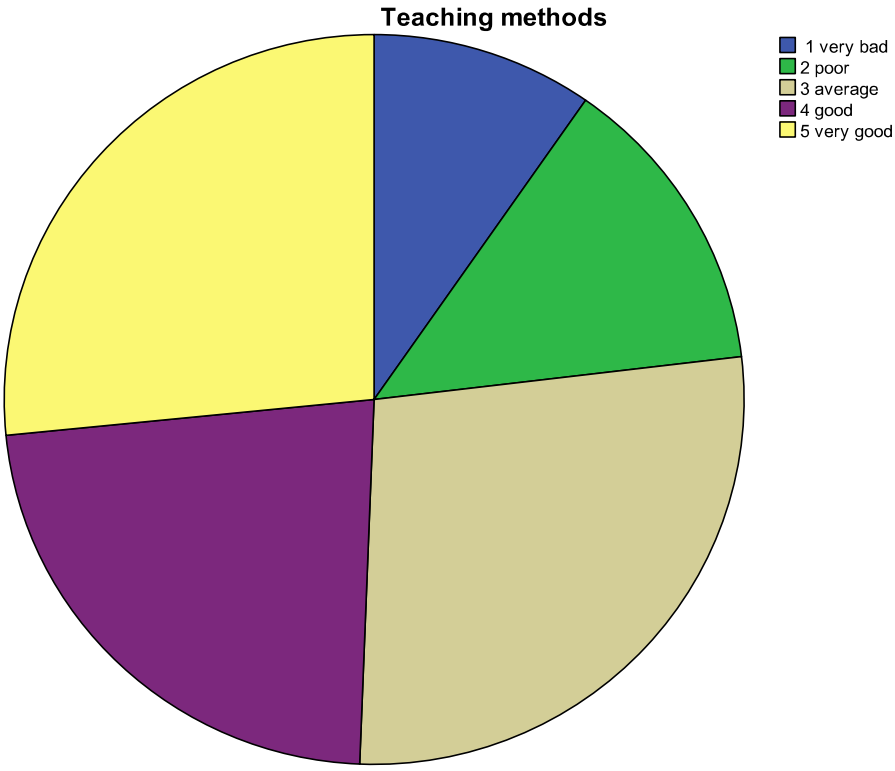


Diagram 10 Knowledge of the teachers about their subject

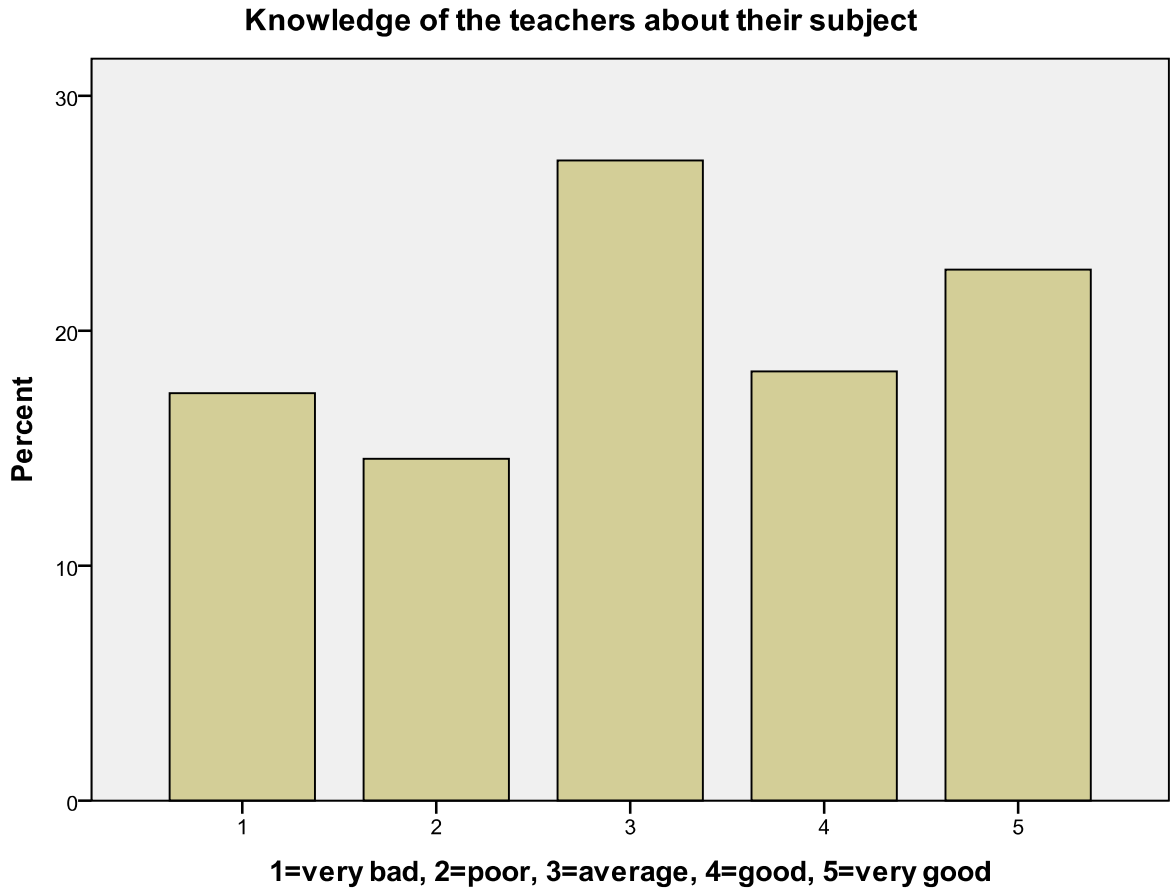
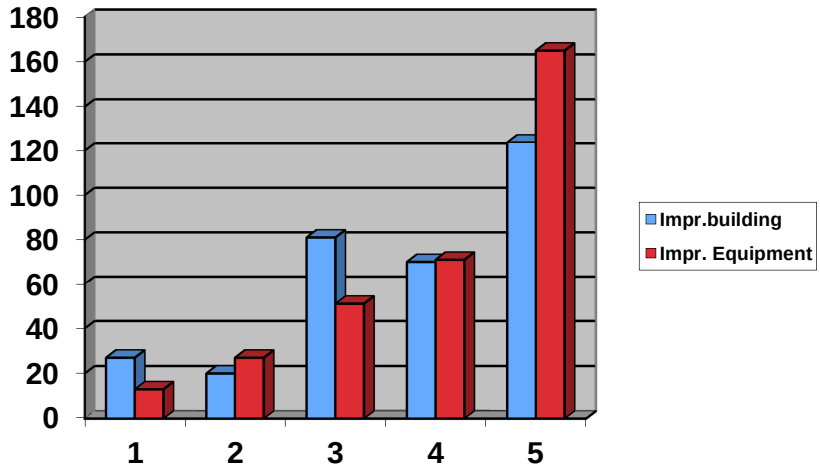


Diagram 11 Improvement of school buildings and equipment



1=none, 2= a little, 3= some; 4=much, 5= very much

Diagram 12: Friendliness

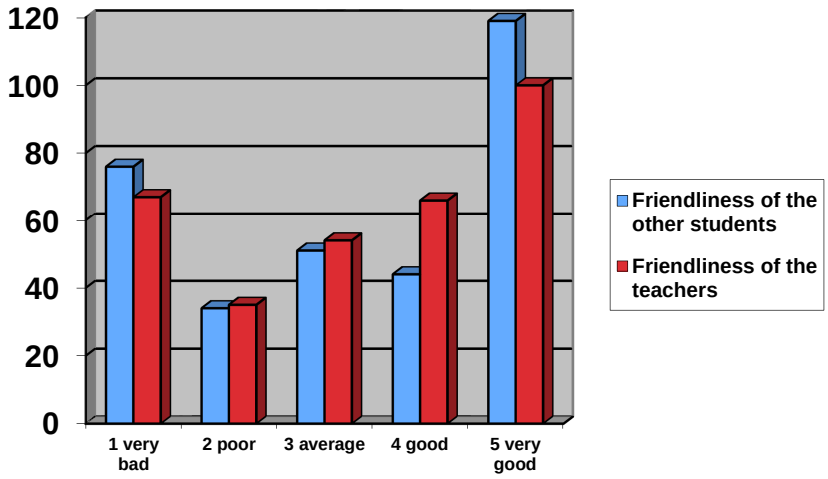


Diagram 13 Extracurricular activities

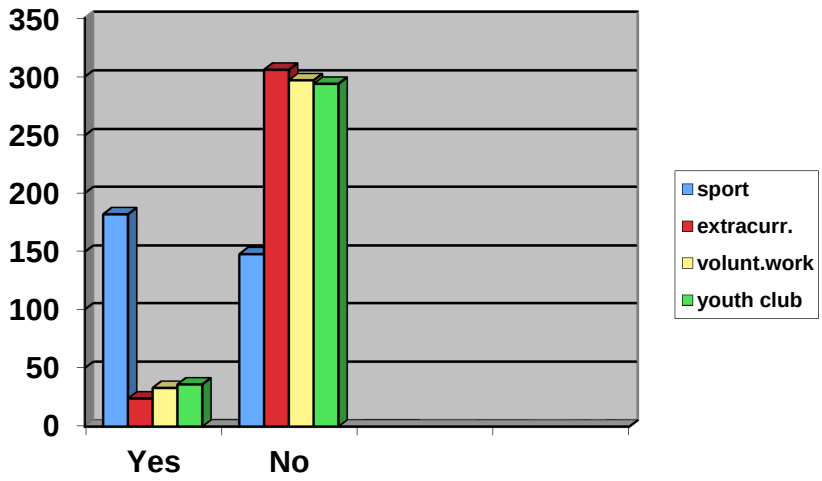


Diagram 14 Future expectations

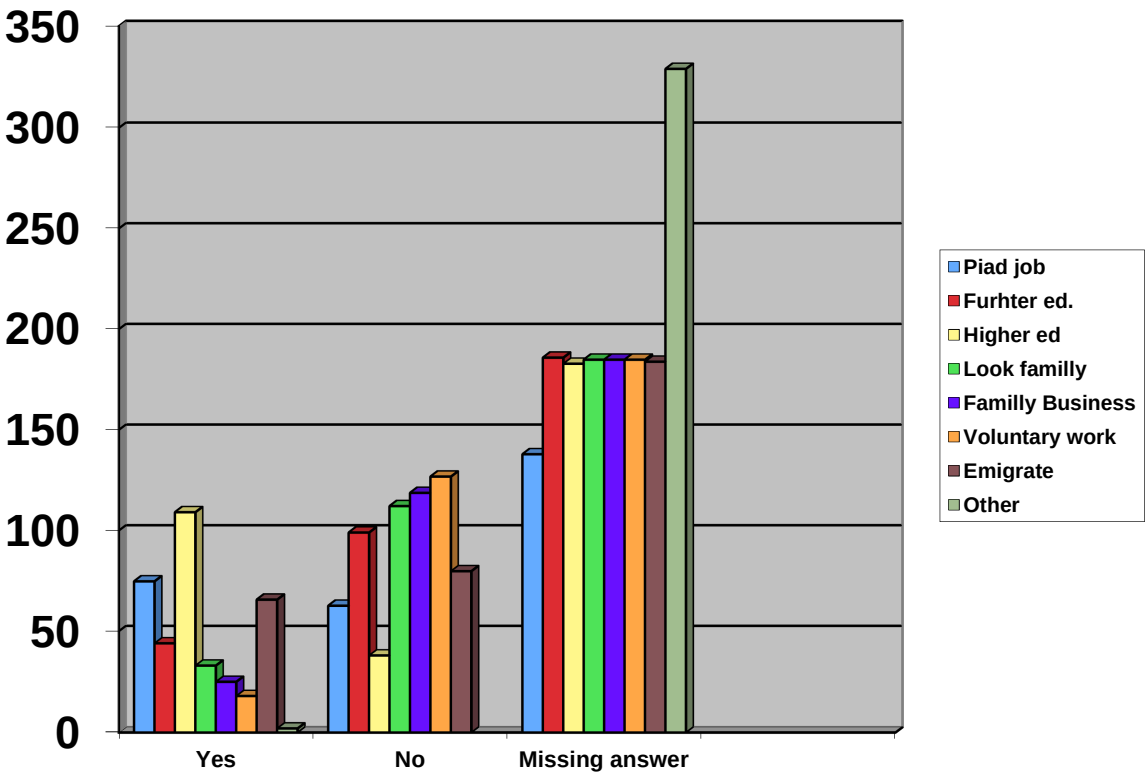
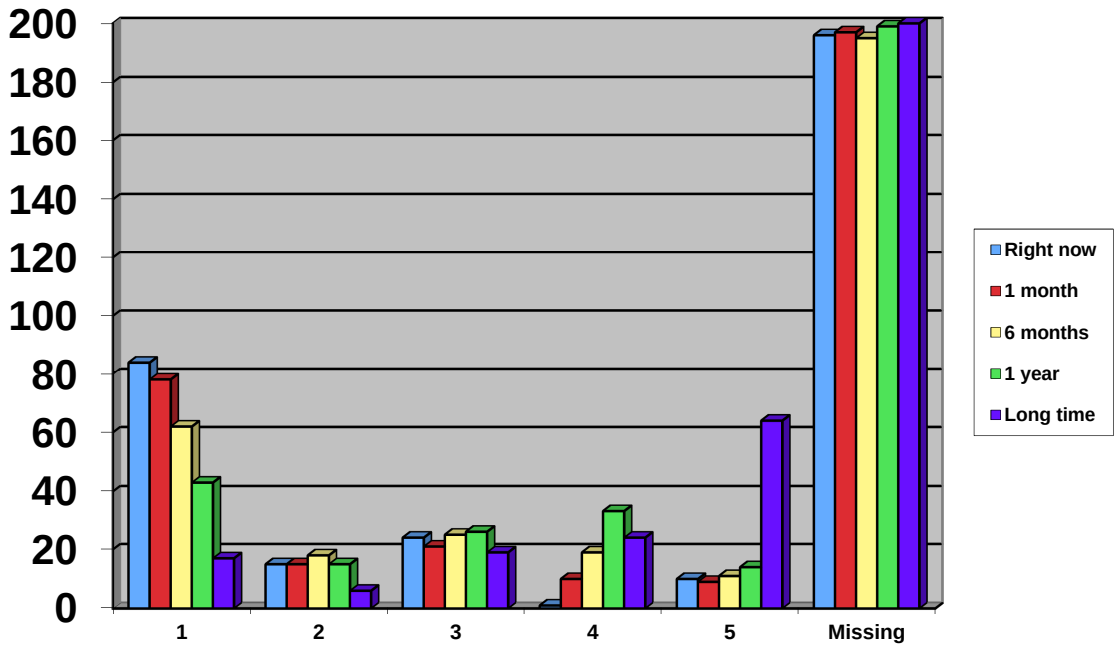
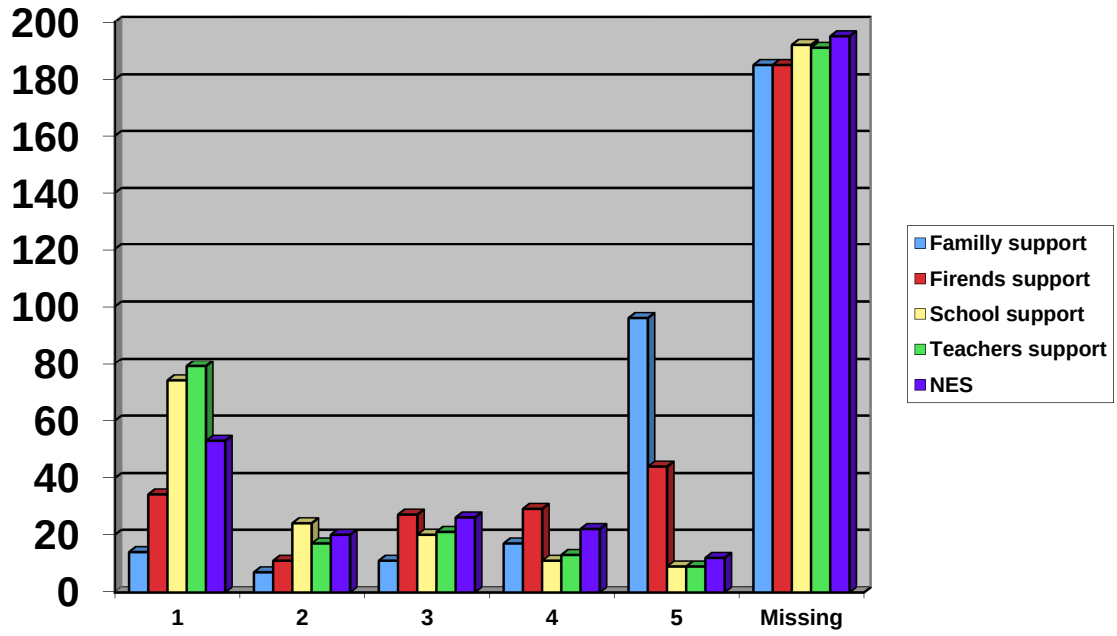


Diagram 15 Future employment



1=none, 2= a little, 3= some; 4=much, 5= very much

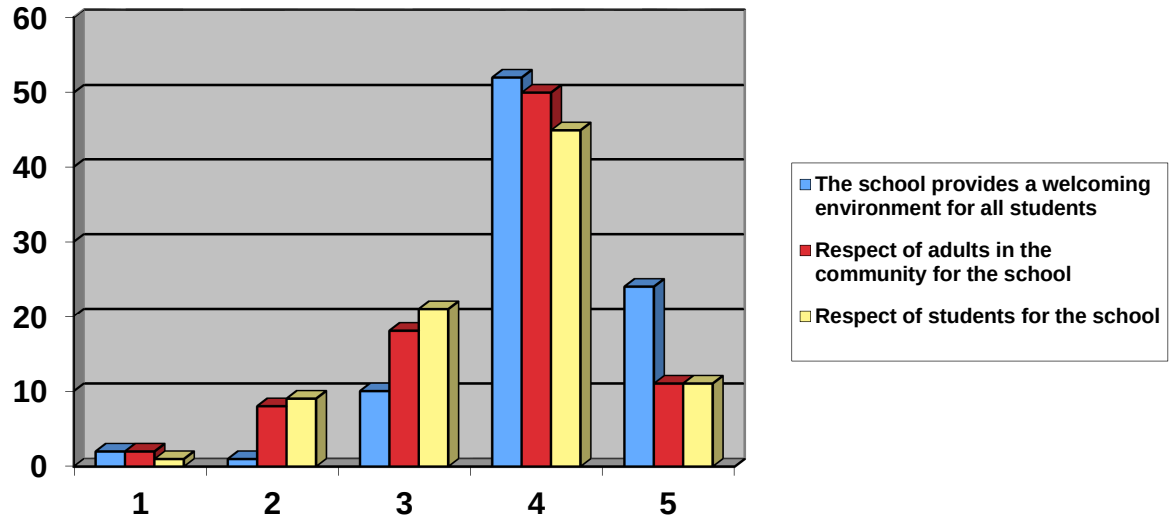
Diagram 16 Expectation of students



1=none, 2= a little, 3= some; 4=much, 5= very much

TEACHER Questionnaire

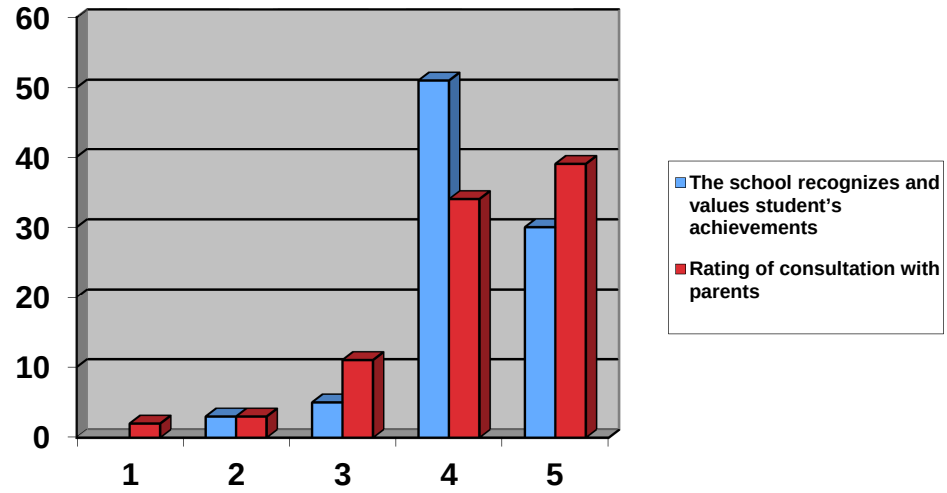
Diagram 17 Environment for students



1=none, 2= a little, 3= some; 4=much, 5= very much

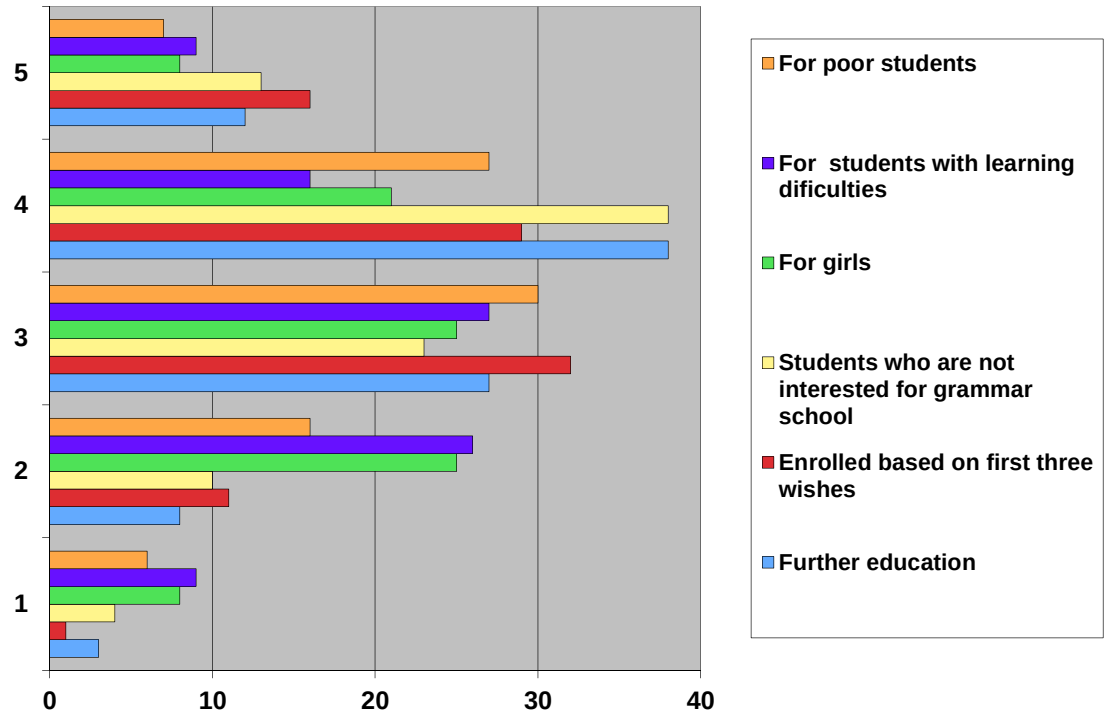
Vocational schools, students and families of students

Diagram 18 Schools, students and families



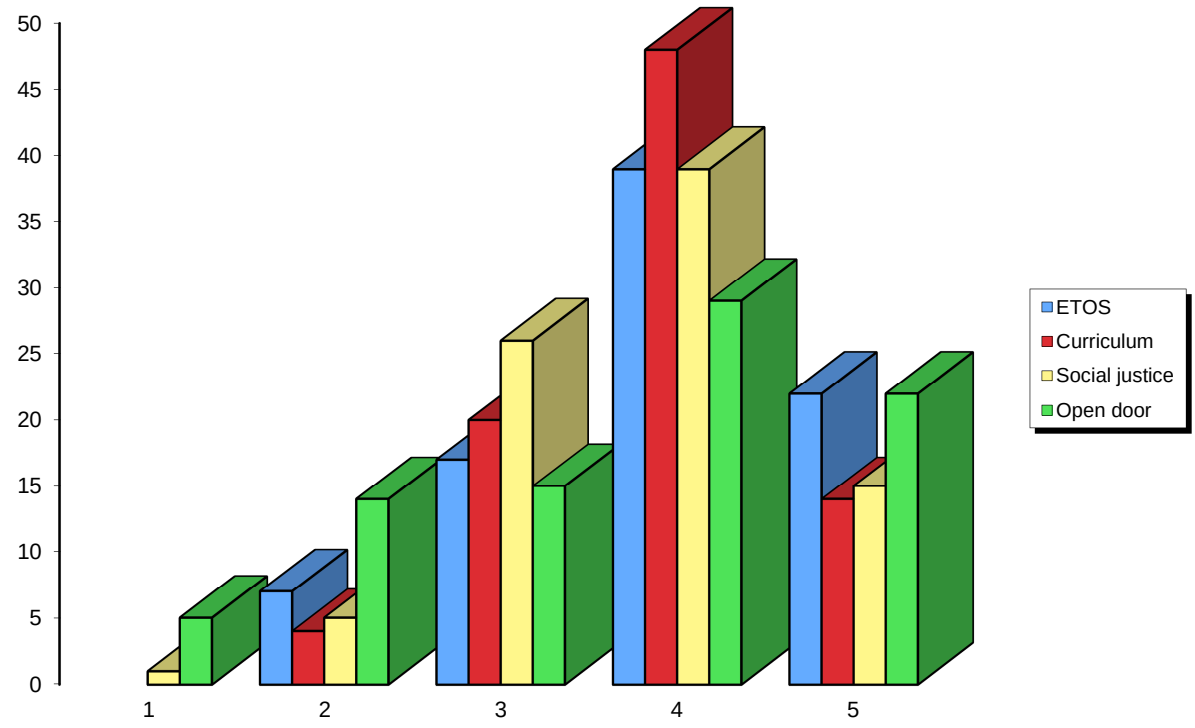
1= very poor, 2=poor, 3=average, 4=good, 5=very good

Diagram 19 Attractiveness of schools



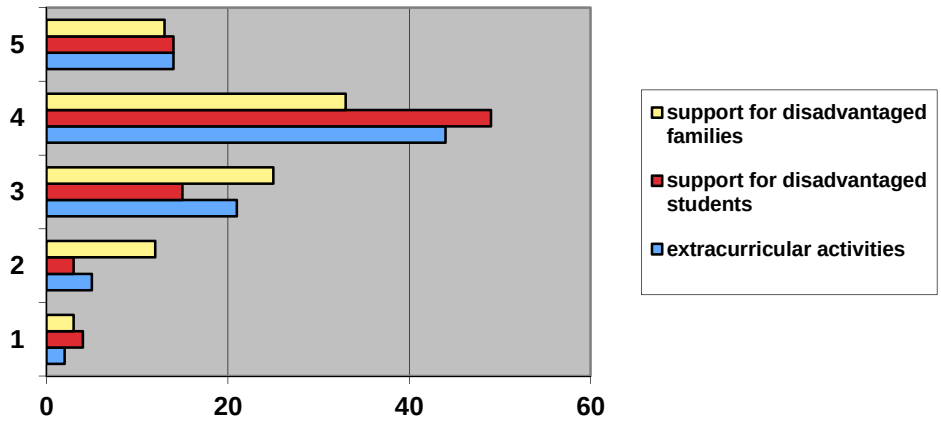
1=inadequate, 2= poor, 3=average, 4=good, 5=very good

Diagram 20 Promotion of social inclusion



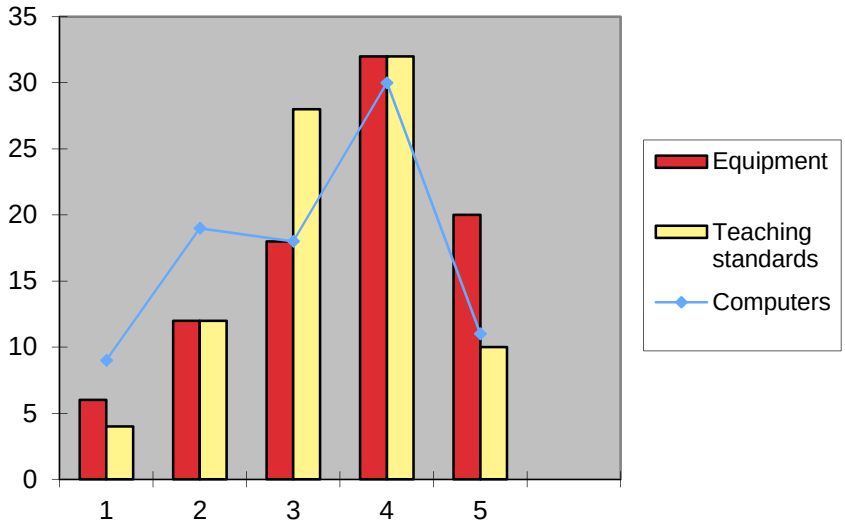
1=not at all, 2=a little, 3= somewhat, 4=much, 5=very much

Diagram 21 Promotion of social inclusion through (2):



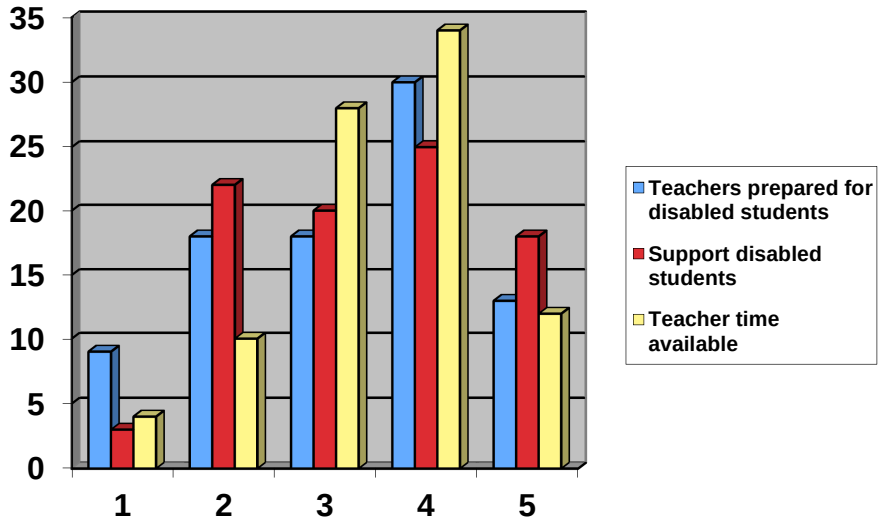
1=not at all, 2=a little, 3= somewhat, 4=much, 5=very much

Diagram 21 Adequacy of equipment and access to computers



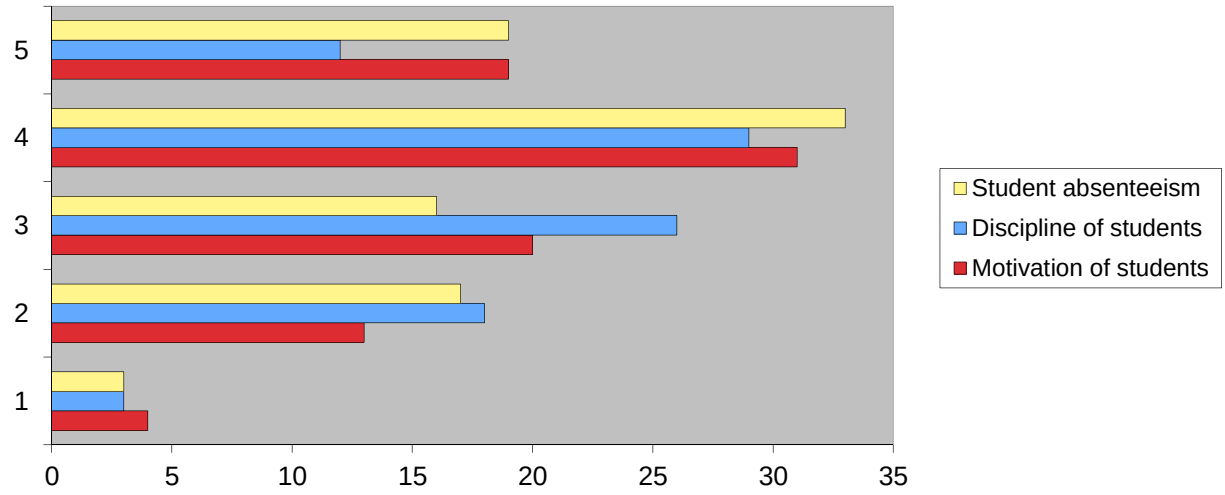
1=not at all, 2=a little, 3= somewhat, 4=much, 5=very much

Diagram 22 Support disabled students



1=very poorly, 2=poorly, 3=average, 4=well, 5=very well

Diagram 23 Problem behaviour



1=none, 2= a little, 3=average, 4 = much, 5=very much