Vocational Education and Training Reform in the Republic of Serbia

Manual 5

TECHNIQUES FOR MONITORING OF THE WORK OF TEACERS

Vocational Education and Training Reform Programme – Phase II

May, 2008.

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Introduction

According to the Terms of reference of the VET Reform Programme - phase 2 the purpose of this handbook is “to develop tools and techniques to monitor and evaluate the quality of teachers’ delivery of the new curricula.”

Monitoring and evaluation of the quality of teachers’ delivery is designed to ensure that the interests of the students come first and are of paramount importance. The intention is to place students, their needs, experiences and achievements at the heart of monitoring and improvement. Furthermore all provision for students should be responsive to the needs of employers, the local community and the economy.

Monitoring of learning provision ensures that the outcomes of learning are meaningful and create tangible benefits for students, employers, and VET schools.

The monitoring system in Serbia comprises internal monitoring provided by the VET schools and an external monitoring provided by the VET Centre and pedagogical advisers.

A real monitoring system related to a quality assurance system is not yet established in Serbia, - what exists for the moment is: the VET Centre collects information about the quality of the new curricula and the pedagogical advisors supervise the teachers’ teaching performances.

During the life time of VET reform programme - phase II, a continuous programme of pedagogical training has to been carried out for the pilot school VET teachers

On the other hand, at the time of writing – April 2008 – the VET reform programme has only provided a limited training of the pedagogical advisors, but new activities regarding upgrading of advisors in supervising the teachers are planned.

A short clarification of the terms 'monitoring' and 'evaluation'

Monitoring is the systematic collection and analysis of information during implementation. It is aimed at improving the efficiency and effectiveness of the implementation. It is based on targets set and activities planned during the planning phases of work. It helps to keep the work on track, and can let management know when things are going wrong. If done properly, it is an invaluable tool for good management, and it provides a useful base for evaluation. It enables the system (schools and ministries) to determine whether the resources, available, are sufficient and are being well used, and whether the capacity of teachers is sufficient and appropriate.

Evaluation is the comparison of actual impact against the agreed standards. It looks at what the reforms set out to do, at what have been accomplished, and how it has been accomplished.

What monitoring and evaluation have in common is that they are geared towards learning from what and how it is being done, by focusing on:

- Efficiency
- Effectiveness
- Relevance
- Impact
- Sustainability

Monitoring and evaluation in general

The main purpose of monitoring and evaluation is to create a basis for self-assessment leading to self-improvement. Effective self-assessment enables a VET school to identify its strengths and weaknesses, to compare its performance with that of other VET schools, to identify opportunities for improvement, to set objectives and targets, and to prioritise the actions required to achieve these. It also provides the means of identifying and responding to the needs of students and other stakeholders.

The purpose of monitoring should be properly communicated to all staff, students and others who use the VET school's services. In planning for monitoring, VET schools should identify:

- why monitoring is being carried out
- which areas and/or activities have been prioritised to be subject to monitoring
- how the monitoring will be carried out
- who will carry out the monitoring
- when the stages in the process will be carried out

All participants should be aware of their responsibilities within the monitoring process. They should be properly briefed on the purposes, the scope of the monitoring, how the monitoring will be carried out, and the timescales for monitoring.

The monitoring and evaluation that are carried out contribute directly to the quality assurance of VET provision. Quality improvement involves all techniques and activities aimed at eliminating causes of unsatisfactory performance at all the relevant stages – from the identification of needs through to the assessment of whether these needs have been met. Hence a quality improvement process would cover the following steps:

- setting targets
- developing and implementing a system for collecting, analysing and reporting on performance
- identifying what action should follow if performance falls below targets, standards, or required levels
- implementing and monitoring action for change

The process of monitoring and continuous improvement should include:

- evaluation of performance
- improvement plan, improvement targets and action plans
- monitoring and reviewing the extent to which development and action plans are achieved and targets are met

Monitoring and evaluation implies internal and external monitoring and evaluation.

Internal monitoring and evaluation

Following are extracts from “Monitoring Framework for the Implementation of new Curricula” by Mirjana Bojanic and Tatjana Glisic, November 2005, VET programme –phase I. The extracts show recommendations to how to organise an internal monitoring:

To enable developing of professionals for certain profile within educational system the following preconditions should be met:

- *Relevant curriculum is needed;*
- *Schools are to be prepared for realization of curriculum in respect of adequate space and equipment;*
- *Competent and trained teaching staff at school is needed;*
- *Teachers and teachers-assistants are to be adequately prepared for implementation of new curriculum;*
- *The concept of final exams should be developed – this concept will enable assessment of the competencies acquired*
- *Defined monitoring and evaluation system of curriculum realization at levels of school and the Republic.*

Meeting of all above mentioned preconditions leads to expected results.
The new curriculum brings not only new teaching contents but some organizational innovations and new teaching methods as well, including assessment methods. VET teachers have not graduated from teacher colleges – they are just engineers, doctors, lawyers, economists. Therefore, they need further training in the field of pedagogy, particularly in the sum of teaching methodologies of the school subject in question.

New teaching contents in VET ask for teachers who are familiar with new technologies, social and economic relationships and legal norms. Apart from problem identification, monitoring of curriculum implementation also enables identification of needed trainings for teachers – in the field of pedagogical knowledge and skills and in their basic profession as well.

Only upon the completion of the educational process for the given educational profile is it possible to have the whole picture of the extent to which the new curriculum ensures that students will achieve the envisaged professional knowledge, skills and attitudes, that is, professional competencies. The perceived imperfections of the curriculum itself or the way in which it is implemented can be corrected during the process of implementation itself, which is the most rational characteristic of the pilot.

Pilot Monitoring

Pilot realization should be monitored at different levels:

- School level;
- Sector level – the Association of Schools;
- Republic – the VET and Arts Centre.

At each of these levels holistic educational process is monitored and the following elements are evaluated:

- *Quality of pilot curriculum;*
- *Implemented teaching methods;*
- *Needed trainings for teachers;*
- *Usage of teaching aids and learning materials;*
- *Necessary equipment, machines, appliances and devices*
- *Teaching organization;*
- *Student achievements.*

Monitoring process itself also presents a kind of pilot; the process of monitoring pilot realization is aimed to design a role model on monitoring and evaluation of the curricula, schools, monitoring system and holistic educational process.

Pilot Monitoring at School Level

The complete picture on quality of pilots is created during their implementation in school practice.Permanent monitoring is necessary to enable successful implementation process - in order to conduct prompt changes of all elements – teaching plan, teaching timeframe, teaching contents, teaching methods, training of teachers delivering pilot curriculum. Hence,

Each school where the pilot is realized may form a ***School Commission on Pilot Realization Monitoring****.*

The Commission consists of the following members:

- *The Principal;* (or the person the principal appoints – if the principal is not directly involved, he / she has to be regularly informed about the monitoring activities)
- *A representative of general education school subject teachers delivering teaching in pilot class;*
- *A representative of general VET school subject teachers delivering teaching in pilot class;*
- *A representative of VET school subject teachers delivering teaching in pilot class;*
- *A representative of professional support staff (pedagogue, psychologist);*
- *A class teacher of pilot class – in the case that he/she is not already a member of the Commission as a representative of one of above mentioned categories.*

The school forms separate commissions for monitoring of realization of each pilot (hereinafter referred to as: School Commission). In the case where there are more pilots in school, within one or more sectors, the school is allowed to form joint school commission, but it must include a representative of teachers delivering teaching of VET school subjects - for each pilot.

Tasks of School Commission on Pilot Realization Monitoring

Coordination of teachers' working activities delivering teaching in pilot class;

- *Monitoring of teaching contents' correlation - providing achievement of prescribed knowledge and skills' outcomes (hereinafter referred to as: teaching contents) within different school subjects;*
- *Monitoring of correlation of adopted knowledge and skills through modules, thematic areas, i.e. school subjects;*
- *Identification of problems emerging during teaching;*
- *Collecting of questionnaires on qualitative analysis of the curricula;*
- *Forming and updating of data base;*
- *Analysis of student achievements at the end of each classification period;*
- *Designing of the report for the Commission of the Association of Schools and the VET and Arts Centre.*
- *Cooperation with the local authorities*

- *Promotion and providing information for parents, students, social partners and other stakeholders in pilot.*

Tasks of School Commission Coordinator

- *Coordination of both school commission members and teachers' working activities - in each pilot class;*
- *Collecting of questionnaires on qualitative analysis of the curricula;*
- *Data base updating and evidence of school subject files;*
- *Communication with the VET and Arts Centre on identified problems;*
- *Communication with the coordinators of the school commissions of pilot schools in which the same pilot profiles are implemented;*
- *Designing of the report for the Commission of Association of Schools and the VET and Arts Centre;*
- *Continuous work on promotion and providing reports about the pilot profiles to the members of the teaching staff, Parents' Council and School Board;*
- *Communication and cooperation with social partners.*

After the School Commission is established, during the very first meeting, it is necessary to distribute the roles and the tasks within the team and adopt the operational plan.

Successful realization of the curriculum is possible only when the ***coordination of all teachers' working activities*** *delivering teaching in a certain class is achieved. The curriculum means the* ***correlation of teaching contents****, but such correlation is fully achieved during teaching-learning process itself. Inversely, if each teacher delivers teaching*
programme (curriculum) of his/her school subject disregarding its delivering by his/her colleagues teaching at the same class, it will result in fragmented teaching-learning process. Hence students will not adopt knowledge as a whole but as a series of separate fragments.

Teaching contents are covered through different subjects which are interrelated and which enable development of knowledge and acquisition of suitable skills and attitudes, thus achieving previously determined professional competencies.

Suitability of teaching contents, their functionality and connection to other teaching contents are assessed during the monitoring process of pilot curricula implementation.

During each teaching-learning process, even pilot teaching-learning process, certain problems emerge: misunderstanding of educational outcomes, insufficient methodological knowledge and skills of teachers, outset of modern technologies, organization of teaching, etc. Some of these problems require external help - out of schools, but some of them can be resolved at school level. The school commission is responsible for ***identification*** *of such* ***problems****.*

Professional support staff (pedagogues, psychologists) can help teachers to expand their methodological knowledge, in test preparation or identification of trainings–seminars needed to enable teachers to accomplish their tasks successfully.

When problems of interpreting (understanding) the curriculum occur, the school commission coordinator informs the Centre and the programme coordinator so that they could resolve the problem.

School coordinators from all the schools in which the pilot curriculum for the same educational profile is implemented should keep in touch, because it often happens that the problem identified in one school is not perceived as the problem in some other school. In this way the network of schools is made and it helps schools to exchange their experiences and to further develop teaching in all schools.

It is needed to open a separate file for each school subject in order to enable effective monitoring of pilot realization. The file can be kept in the form of folders, no matter whether the files are kept in paper or electronic format.

Upon the completion of subject or module, each teachers is obliged to fill in the ***Questionnaire on Qualitative Analysis of the Curricula: B0*** *(at the beginning of school year),* ***B1*** *(modular curriculum of school subject) or* ***B2*** *[thematic curriculum (disciplinary approach) of school subject]. See Annexes 3, 4 and 5. One copy is stored into a file, and another is submitted to the Association of Schools, i.e. to the coordinator for relevant school subject, appointed at the level of the Association of Schools.*

School subject files contain:

- *General plan and operation plans of teachers delivering teaching of relevant school subject;*
- *Questionnaires B0, B1, B2;*
- *All copies of knowledge test conducted during school year;*
- *Learning / teaching materials (if the teacher prepares them)*

Data base on school, *where the pilot is realized, is significant in respect of monitoring curriculum realization during whole schooling period. It includes the following elements:*

- *School ID card – basic data on school and the school commission that are updated every year;*
- *Data on teachers delivering teaching in each pilot class - classified per educational profile.*
- *Data on students of each pilot class - classified per grade;*
- *School subject files – per profile and grade.*

At the end of each classification period, the analysis of student achievements is conducted at sessions of the Class Council. In the case when during the same school year is enrolled the class of the same

educational profile, where the teaching is delivered according to the traditional curriculum - learning student outcomes of both classes, pilot and traditional one, can be compared.

At the end of each semester the school commission collect from the class teachers the filled questionnaires A1 and A2 and submit them to the Commission of the Association of Schools / curriculum coordinator.

Besides these questionnaires, after each classification period, the school commission prepares the ***periodical report*** *that is to be sent to Commission of the Association of Schools and to the VET Centre.*

Instruments for monitoring pilot curriculum in schools*:*

- *Data base on school in which the pilot curriculum is implemented;*
- *Minutes (internal) from the meetings of the school commission with the teaching staff of each pilot class;*
- *B0, B1 and B2 questionnaires for qualitative analysis of the subject; (Annex 3,4,5)*
- *A1 and A2 questionnaires for the analysis of students' achievements;* (Annexes1,2)
- *Periodical reports for the sector level commission.*

External monitoring and evaluation

Following are extracts from "Monitoring Framework for the Implementation of new Curricula" by Mirjana Bojanic and Tatjana Glisic, November 2005, VET programme –phase I. The extracts show recommendations to how to organise an external monitoring:

According to the law, pilot curriculum implementation at the national level is monitored by a pedagogical adviser from the Ministry of Education and Sports and the VET Centre. The Centre appoints the National Commission for Monitoring. This commission must have at least three members:

- *pedagogical adviser (in charge of the sector to which the pilot curriculum belongs);*
- *adviser-coordinator for vocational education in the Centre;*
- *curriculum coordinator for the given pilot profile.*

If the pilot profile is developed within some other project, then the project representative can be a member of the commission.

Tasks of the National Commission for Monitoring:

- *visits to schools in which pilot curriculum is implemented;*
- *advising teachers in pilot classes;*
- *writing reports about the visits;*
- *discussing periodical reports of the Commission of Association of Schools;*

- *writing periodical reports for the Minister of Education.*

Visits to schools

The National Commission for Monitoring visits each pilot school at least once a year. The school should be informed about the visit minimum seven days before the visit so that the Commission can work successfully.

In a quality assurance system *External Evaluators* undertakes quality assurance audits that are consistent across all forms of learning and qualifications focusing on the particular aspects of a VET school's work.

The role of the external evaluator within quality assurance is made clear and strengthened through staff development and professional and occupational up-dating. External evaluators have the skills, knowledge and understanding they need to audit and help VET schools assure and improve quality across all forms of learning and qualifications.
A quality system enables the organisation to assure, monitor and improve the quality of learning provision.

In February 2007, the Ministry of Education issued a new regulation for pedagogical advisors. In many West European countries the system of pedagogical advisors is an integrated part of the quality assurance system. A full developed quality assurance system is not yet developed in Serbia, but the new system of having pedagogical advisors could be seen as a step in that direction.

In article 9 in the Regulation for pedagogical advisors is stated the following about 'Pilot Monitoring':

Pedagogical advisor, during supervision, shall monitor the implementation of a pilot and assess the achievement of objectives and expected outcomes, stipulated in the sub legal act introducing the pilot.

The results of pilot monitoring shall be submitted to the Minister, who shall decide upon its further application.

The results of the pilot shall be available on the website of the MoES.

The following is a recommendation to how pedagogical advisors in the future can monitor the work of the teachers within VET schools.

Students and their learning experience are at the heart of the VET sector's work therefore the focus of the recommendations are all time at students achievement, having in mind that the achievements are depending on the work of the teachers.
The pedagogical advisors' approaches to lesson observation will vary depending on the circumstances. They may use the same observation schedule for all lesson observations, but before

observations can start, criteria (like common standards) will have to be defined by the Ministry of Education. In Annex 3 an example of standards/criteria can be found. Features of good **theoretical lessons** that pedagogical advisors may look for include, for example:

- clear objectives which are made known to the students
- enthusiastic and interesting teaching that maintains the attention of all the students
- activities that are suitable for all students, whatever their age, ability and cultural background, and which are suitably demanding
- awareness of different individual students' needs
- effective questioning of students to check their understanding
- skilful leadership of discussions to ensure that students' contributions are encouraged and valued
- clear explanations
- accurate and up-to-date technical knowledge
- sensitivity to equal opportunities issues
- clear writing on whiteboards and overhead projectors
- good-quality handouts, which are well produced, free from errors and which contain references, where appropriate
- sufficient coverage of the subject matter
- effective management of any transition between individual and group work
- students that work collaboratively with their peers and others
- assignments that encourage students to think independently, consolidate learning, develop research skills, and use resources effectively, particularly IT
- assignment briefs that clearly indicate tasks to be undertaken, assessment criteria and deadlines
- marked assignments that are returned to students within a specified time and indicate how students could improve their work
- a clear end to the lesson, summarizing what has been learned

Developing **practical skills** is an essential element of TVET learning programmes. Pedagogical advisors will observe the learning of practical skills in many different settings, for example, workshops, laboratories, kitchens, and places of work.

Pedagogical advisors observing practical lessons will also focus on the effectiveness of teaching. In addition, matters that are particularly relevant to the evaluation of practical lessons include:

- whether the balance between the teaching of theory and practical skills is appropriate
- whether the students have a sufficient grounding of theory before starting the relevant practical work

- the safety and suitability of the environment for the practical activity and the number of students expected to attend
- whether the activities reflect current commercial or industrial practice
- the quality of the demonstration of practical skills
- whether students have enough time to practice and develop their skills
- whether teachers/trainers divide their time between all individuals in the group and are aware of students' progress
- whether students are achieving the stated learning outcomes

Regular and effective **assessment** makes a major contribution to enabling students to achieve their full potential. It should involve thorough identification of students' learning and additional support needs, and fairly and accurately identify what they are doing well and what needs improvement.

Students should understand how they will be assessed and how their overall progress will be monitored. They should also be encouraged to evaluate their own performance. Teachers should use assessment to evaluate how effectively the course meets students' needs.
Pedagogical advisors must evaluate on:

- the suitability of assessment
- the uses of assessment in planning learning and monitoring students' progress.

In making evaluations, pedagogical advisors will consider the extent to which for all students

- forms of assessment and recording are suitable for the module/subject being followed
- assessment is fair, accurate and carried out regularly
- assessment is used to monitor progress and inform individual students about how they are performing and how they might develop further
- achievements towards learning goals and qualifications are recorded
- assessment, verification and moderation procedures follow national requirements
- those with a legitimate interest, such as employers or parents, are clearly and regularly informed about students' progress.

Pedagogical advisors will focus on the effectiveness of the assessment and certification process. The assessment of students involves evaluations about how effectively students are assessed on their learning throughout the module/subject. Assessments are used to monitor students' progress towards their learning goals and the learning outcomes, and to judge their competences and skills against the standards. Pedagogical advisors will evaluate the quality

of the assessment of learning and the extent to which students, employers, and others are involved in reviewing students' progress.

Monitoring practicalities.

Pedagogical advisors will concentrate on observing lessons, looking at teaching processes and sampling students' work. This will be done in a way that minimizes disruption to the learning process. Pedagogical advisors will not take part in lessons.

However, when suitable opportunities arise, pedagogical advisors may talk informally with students or look at their work. The lessons observed will be part of the VET school's normal programme of work. Pedagogical advisors will not expect or require changes to that programme. When they enter a classroom, pedagogical advisors will ask the teacher for the register, the lesson plan and any supporting material. They may ask for information that enables students of different age-groups or programme type to be identified, or those with learning difficulties or disabilities. They will make written notes during the lesson, and may use the protocol, that is attached in Annex 7. This table was developed by the pedagogical advisors of the pilot schools, as a result of a training seminar initiated by the VET Reform programme, - phase II. This scheme is currently in use by the advisors in a trial period and might be revised later when experiences show the need for that. After observation of a lesson the pedagogical advisor will provide brief feedback to the teacher.

Pedagogical advisors may stay for the whole or part of a lesson. They will spend enough time in lessons to enable them to make valid and reliable judgments on the standard of the
learning process. Normally this will not be less than 30 minutes. Each visit to a school will be assessed against the criteria in the protocol for monitoring.

After the observation the teacher will receive oral feedback and an opportunity to discuss any issues arising from the observation. In some cases, however, feedback later in the day may be more convenient or appropriate. The objective is to let the teacher know what went well, what was less successful and what could be done more effectively.

Pedagogical advisors will identify strength and weaknesses. They will not comment on every aspect of the lesson, but their general conclusions may be illustrated with specific examples. Weaknesses will be linked to the effects of these on students' achievements, and will be attributed to the nature of the teaching rather than to the teacher. Pedagogical advisors will provide good explanations and reasons for the judgments reached.
Pedagogical advisors will present their findings in a way which –

- is well structured, clear and gives a convincing account of the findings

- emphasizes what has been done well and what could be improved
- provides well-chosen examples
- allows opportunities for discussion and clarification of pedagogical advisors' findings
- allows opportunities for the VET school to understand why judgments have been made
- offers opportunities for those attending the feedback to make comments
- gives clear indications of the areas in need of improvement

Constructive dialogue is essential between the pedagogical advisors and members of the VET school**.** **Feedback** should emphasize that admitting weaknesses does not detract from the VET school's positive factors, but that, on the contrary, a constructive approach to weaknesses is part of a positive self-awareness. Under no circumstances must feedback mark down or blame individuals. Respect for openness is a prerequisite for the VET school's development, and a climate of mutual confidence needs to replace the old system of control and sanctions.

Therefore a few statements about feedback:

- Before giving feedback, the pedagogical advisor must be clear about what he/she wants to say
- It is recommended to start with the positive (in order to create encouragement)
- The feedback must be specific

- The feedback must refer to performance that can be changed
- The pedagogical advisor should offer alternatives (suggestions to how to improve)

If a monitoring visit results in the evaluation that the work of the teacher causes concern, the pedagogical advisor will have to arrange a re-monitoring visit focusing primarily on the weak area(s) to be improved.

Standards for teachers' performance:

The purpose of the standards for teacher performance is:

- to provide an agreed set of criteria for quality teaching
- to assist VET schools in activities such as recruitment and appraisal of staff, and the identification of staffs' training needs

As most of the Serbian VET school teachers do not have a pedagogical background, the proposed/recommended teaching professional standards are divided into 3 levels:

1) newly engaged teacher, being guided and supervised by a pedagogist in the school
2) a teacher that has got approx. 2 years of teaching experience
3) experienced teacher

Proposed/recommended standards are to be found in Annex 6.

Examples of best practice

Referring to the monitoring of teachers' work, it is worth mentioning that the VET Reform Programme II has provided substantial training to the teachers in the pilot schools. The training concentrated on Vocational Pedagogy with the main focus on:

- Lesson planning and choosing the right topics in vocational subjects,
- Identifying key competencies in vocational education and Competence-Development Oriented Learning,
- Making own experiences with Micro Teaching (MT) in vocational education,
- Identifying verifiable criteria for observation of vocational lessons,
- Developing forms for recording Micro Teaching (MT) sessions as well as Trial-Run Teaching Situations (TRTS),
- Starting to think about work- and business process related learning in vocational education.
- Getting comfortable with the approach of "Reflection Learning"[1] in vocational education, and
- Starting to think about work- and business process related learning in vocational education.

The vital part of the teacher training, provided by the VET reform programme II, was also what is called Micro teaching sessions, where teachers perform not a full lesson but a part of a lesson for their colleagues. The aim was to ask teachers to experiment with new teaching methods in a safe environment, not with students but only for colleagues and under supervision of the teacher trainers. The method used during these micro teaching sessions is called "Cooperative Reflection Counselling". After the teacher has performed his/her session, feedback is given to the teacher by the teacher trainer. The audience then discuss alternative teaching methods that could have been used. The trial –run teaching gave the VET teachers a basis for experiment with new teaching methods – an experience that they could use when teaching students.

After the training sessions, the teacher trainers visited 22 pilot schools to observe the VET teachers when actually teaching students. In Annex 8 materials from some of the observations are collected as 'Best Practise'.

[1] Reflection Learning as it is used here refers to the German *"Handlungsorientierung"* and means structuring learning processes in vocational education and training which are relevant for students, stress comprehensive and joint planning in groups and produce planning strategies that take concrete actions and finally evaluate the results. Lecturing in vocational training used to be learning that can be compared to students expected to learn driving a car by continuously remaining in the passenger seat. Reflection Learning on the other hand will put students in the driver's seat of their own vocational learning! The English term "Reflection Learning" was to my knowledge first used by SIEMENS in Germany in the early 1990s.

ANNEX 1.

RESULTS OF THE PILOT CLASS ACHIEVED AT THE END OF THE FIRST SEMESTER OF SCHOOL YEAR 2007/08.

Pilot profile:			
School:		**Location:**	
Language in which the teaching process is carried out:			
Grade / Class:	**/**	**Number of teachers, members of the Class Council:**	

I GENERAL INFORMATION ABOUT THE PILOT CLASS FOR SCHOOL YEAR 2007/08.

1. Number of students enrolled at the beginning of the school year	**male**	**female**	**total**
Number of students – drop outs during the first semester			
Number of students that were enrolled during the first semester			
Total number of students at the end of the first semester			
Civil Rights Education (number of students)			
Religious Education (number of students)			
*			
*			
*			

*) write down the names of other elective subjects

2. Students' average grades and discipline at the end of elementary school / previous grade		
Students' average grades (including discipline)	Excellent	
	Very good	
	Good	
	Satisfactory	
Students' behaviour (discipline)	Excellent	
	Very good	
	Good	
	Satisfactory	
	Unsatisfactory	
Average score of the class (including discipline)		

3. Number of students in the class who attend the same grade for the second time	

II COLLECTIVE RESULTS OF THE PILOT CLASS ACHIEVED AT THE END OF THE FIRST SEMESTER

1. Total number of absences from school at the end of the first semester (per student)		
Total number of excused absences per student		
Total number of unexcused absences per student		
2. Students' average and discipline at the end of the first semester		
Students' average grades (including discipline)	Excellent	
	Very good	
	Good	
	Satisfactory	
	With 1 bad mark	
	With 2 bad marks	

	With 3 and more bad marks	
	Students with no marks	
Students' discipline	Excellent	
	Very good	
	Good	
	Satisfactory	
	Unsatisfactory	
Average score of the class (including discipline)		

III THE AVERAGE SCORE OF STUDENTS AT THE END OF THE FIRST SEMESTER (PER SUBJECTS)

1. The average score of students at the end of the first semester (per subjects) * Insert the names of all subjects in this grade	**5**	**4**	**3**	**2**	**1**	**No marks**	**Average score**
1а. The Serbian Language and Literature							
1б. Serbian as the second language							
2. _____ Language and Literature							
3. Foreign languages							
4. Physical Education							
5. Maths							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							

Class teacher :	_____

Annex 2.

I RESULTS OF THE PILOT CLASS ACHIEVED AT THE END OF THE SECOND SEMESTER OF SCHOOL YEAR 2007/08.

Pilot profile:			
School:		**Location:**	
Language in which the teaching process is carried out:			
Grade / Class:	**/**	**Number of teachers, members of the Class Council:**	

II GENERAL INFORMATION ABOUT THE PILOT CLASS FOR SCHOOL YEAR 2007/08.

1. Number of students enrolled at the beginning of the school year	**male**	**female**	**total**
Number of students – drop outs during the second semester			
Number of students that were enrolled during the second semester			
Total number of students at the end of the second semester			
Civil Rights Education (number of students)			
Religious Education (number of students)			
*			
*			

*) write down the names of other elective subjects

III THE AVERAGE SCORE OF STUDENTS AT THE END OF THE SCHOOL YEAR (PER SUBJECTS)

1. Total number of absences from school at the end of the second semester (per student)		
Total number of excused absences per student		
Total number of unexcused absences per student		
2. Students' average and discipline at the end of the second semester		
Students' average grades (including discipline)	Excellent	
	Very good	
	Good	
	Satisfactory	
	With 1 bad mark	
	With 2 bad marks	
	With 3 and more bad marks	
	Students with no marks	
Students' discipline	Excellent	
	Very good	
	Good	
	Satisfactory	
	Unsatisfactory	
Average score of the class (including discipline)		

IV THE AVERAGE SCORE OF STUDENTS <u>AT THE END OF THE SCHOOL YEAR</u> (PER SUBJECTS)

1. The average score of students at the end of the first semester (per subjects) * Insert the names of all subjects in this grade	Number of students who have to sit for the exams once again	**5**	**4**	**3**	**2**	**1**	**Students with no marks**	**Average score**
1а. The Serbian Language and Literature								
1б. Serbian as the second language								
22. _____ Language and Literature								
23. Foreign languages								
24. Physical Education								
25. Maths								
26.								
27.								
28.								
29.								
30.								
31.								
32.								
33.								
34.								
35.								
36.								
37.								
38.								
39.								
40.								
41.								

Class teacher :	_____

Annex 3.

INTRODUCTORY QUESTIONNAIRE FOR THE ANALYSIS OF PILOT CURRICULUM

Pilot profile:				
Grade:				
Subject:				
This year, the subject is:	compulsory general ☐	compulsory general-vocational ☐	compulsory vocational ☐	elective ☐
Teacher:				
Name of school:				
Location:				

1. You teach this occupational profile:

   а) first time this year
   б) second time/school year
   в) third school year
   г) fourth school year

2. Please list the specific duties and tasks to be accomplished at the work place by a person who was educated in this occupational profile:

3. Are you familiar with the *objectives and expected outcomes of VET* for the given profile, defined in pilot curriculum?

   а) yes
   б) no

4. Are the objectives and expected outcomes in accordance with the competences needed for the given occupation, as recognised by the labour market?

   а) yes
   б) no

5. For the lesson preparation for your subject you have used:

   а) curriculum for your subject only
   б) curriculum for your subject and similar subjects
   в) whole curriculum (for the whole profile)

6. For the preparation of teaching for this profile you have used curriculum:

   а) given to school by VET Centre (electronic version)

б) published in “Educational Gazette”, No. ____
в) obtained in some other way

_____

7. Based on the results of monitoring of the implementation[2], curricula for some profiles have been revised. Revised curricula have been made available to schools only in electronic form, since the process of publishing “Educational Gazette” is ongoing. If changes have been made in your subject, are you familiar with them?

   а) yes
   б) no

8. Do you have the support of the School Team for Pilot[3] in the process of the implementation of pilot curriculum?

   а) yes
   б) no
   в) to a certain extent

9. Name the person (from school) you ask for help regarding the implementation (teaching) of pilot curriculum:

   _____

   _____

   name position

10. What kind of additional training do you need for implementation of teaching for this pilot profile?

11. What are your expectations from VET Centre?

[2] Business administrator, auto electrician, electrical engineer for vehicle electronics, plaster, technician for ?graphical preparation, operator of mechanical processing, nurse, masseur, nurse-technician, technician “assistant” in dentist’s office, lab technician, cosmetician, pharmaceutical technician, physiotherapeutic technician, technician for agriculture, veterinary technician, food technician, butcher, baker, milk processing … ?, operator of agricultural machines

[3] According to the Methodology for monitoring of pilot, revised for school year 2005/06, School Commission for Monitoring has got a new name – School Team for Pilot

Annex 4.

QUESTIONNAIRE FOR QUALITATIVE ANALYSIS OF CURRICULA AT THE END OF THE FIRST SEMESTER

Please complete the questionnaire based on the experience in planning and implementation of curriculum for your subject in the first semester and thus contribute to upgrading of curriculum and its implementation. The questionnaire refers only to modules and topics within your subject, **implemented** in the first semester.

Name of school:				
Location:				
Occupational profile:				
Grade:				
Subject:				
This year, the subject is:	Compulsory general ☐	Compulsory general-vocational ☐	Compulsory vocational ☐	Elective ☐
Teacher:				

Implemented modules and topics:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
...

For the following set of questions, please answer **separately** for each module – **write the number of module in the fields YES, TO A CERTAIN EXTENT and NO (from the list given above)**.

Example (first question): if, in your opinion, the objectives of modules 1, 3 and 6 are clearly and precisely defined, write 1, 3, 6 in field YES: if the objectives of modules 2 and 4 are not so clearly defined - write 2, 4 in the field TO A CERTAIN EXTENT; if the objective of module 5 is not clearly and precisely defined, write 5 in the field NO.

	YES	**TO A CERTAIN EXTENT**	**NO**
OBJECTIVES OF MODULES/TOPICS			
Are they clearly and precisely defined?			
Comment:[4]			
EXPECTED OUTCOMES OF MODULES/TOPICS			
Are they clearly and precisely defined?			
Are they measurable (is it possible to measure achievement of the defined outcomes)?			
Are they in accordance with the age and other characteristics of students?			

[4] You can explain your answers

Are they realistic, given the resources available at the school and local environment?			
Do they lead to professional competences recognised as necessary (at the labour market) for certain occupation?			
Comment:			
	YES	**TO A CERTAIN EXTENT**	**NO**
IMPLEMENTATION OF MODULES/TOPICS			
Is the duration of modules/topics in your subject suitable for the achievement of expected outcomes?			
Does the modular structure of your subject enable correlation with other subjects and modules?			
Do the modules in your subject allow flexibility in terms of selection of content and teaching methods (with the aim of achievement of expected outcomes)?			
Comment:			
RECOMMENDED WAYS OF ASSESSMENT			
Are the recommended ways the most suitable for the assessment of students' activities aimed at achievement of the outcomes?			
Do the recommended ways help teacher select assessment method or technique appropriate for a specific learning context/situation?			
Comment:			

	YES (write the name and type of material)	**NO**
Do you prepare specific teaching/learning materials for your students?		

Do you think you need additional training for the implementation of pilot curriculum?		
If there is something else (not covered by the questionnaire) that you consider relevant for the revision of curricula and upgrading of its implementation please provide comment. All concrete suggestions and solutions are welcome.		

Annex 5.

QUESTIONNAIRE FOR QUALITATIVE ANALYSIS OF CURRICULA AT THE END OF THE SECOND SEMESTER

Please complete the questionnaire based on your pedagogical experience. The questionnaire refers only to modules and topics within your subject, **implemented** in the second semester.

Your answers will be important for the evaluation of pilot.

Name of school:				
Location:				
Occupational profile:				
Grade:				
Subject:				
This year, the subject is:	Compulsory general ☐	Compulsory general-vocational ☐	Compulsory vocational ☐	Elective ☐
Teacher:				

Implemented modules and topics:

7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
...

Names of modules which have not been implemented: Explanation:

_____ _____
_____ _____
_____ _____
_____ _____

For the following set of questions, please answer **separately** for each module – **write the number of module in the fields YES, TO A CERTAIN EXTENT and NO (from the list given above)**.
Example (first question): if, in your opinion, the objectives of modules 1, 3 and 6 are clearly and precisely defined, write 1, 3, 6 in field YES: if the objectives of modules 2 and 4 are not so clearly defined - write 2, 4 in the field TO A CERTAIN EXTENT; if the objective of module 5 is not clearly and precisely defined, write 5 in the field NO.

	YES	TO A CERTAIN EXTENT	NO
1. OBJECTIVES OF MODULES/TOPICS			
Are they clearly and precisely defined?			
Please provide comment if your answer is NO or TO A CERTAIN EXTENT			
2. EXPECTED OUTCOMES OF MODULES/TOPICS			
Are they clearly and precisely defined?			
Are they measurable (is it possible to measure achievement of the defined outcomes)?			

Are they in accordance with the age and other characteristics of students?			
Are they realistic, given the resources available at the school and local environment?			
Do they lead to professional competences recognised as necessary (at the labour market) for certain occupation?			
Please provide comment if your answer is NO or TO A CERTAIN EXTENT			
	YES	**TO A CERTAIN EXTENT**	**NO**
3. IMPLEMENTATION OF MODULES/TOPICS			
Is the duration of modules/topics in your subject suitable for the achievement of expected outcomes?			
Does the modular structure of your subject enable correlation with other subjects and modules?			
Do the modules in your subject allow flexibility in terms of selection of content and teaching methods (with the aim of achievement of expected outcomes)?			
Please provide comment if your answer is NO or TO A CERTAIN EXTENT			
4. RECOMMENDED WAYS OF ASSESSMENT			
Are the recommended ways suitable for the assessment of students' activities?			
Do the recommended ways help teacher select assessment method or technique appropriate for a specific learning context/situation?			
Please provide comment if your answer is NO or TO A CERTAIN EXTENT			

5. TEACHING IMPLEMENTATION	**YES**	**NO**
Do you prepare specific learning materials for your students?	**the name and type of material:**	

If you think you need additional training for the implementation of pilot curriculum, what kind of training do you consider **the most necessary**?	**Type of training:**	

How would you assess this programme/curriculum? on a five-level scale?

1 2 3 4 5

If you could choose, you would work in:

a) pilot;
b) classical teaching

Would you accept the offer to work in the team for revision of curricula?

a) yes
b) no

If there is something else (not covered by the questionnaire) that you consider relevant for the revision of curricula and upgrading of its implementation in pilot please provide comment. (You can name the module-subject for which you have the revision proposal prepared)

Annex 6. Standards/criteria for quality teaching

Dimension	Beginning Teacher	Teacher	Experienced Teacher
	Beginning teachers work under the guidance of others (e.g. pedagogists) They undertake "advice and guidance" to assist in the development of the required competencies.	**Teachers** have taught for at least two years. T**eachers** are competent in the performance of their day-to-day teaching responsibilities.	Experienced Teachers are highly skilled practitioners and classroom managers. Their teaching methods are well developed and they employ an advanced range of strategies for motivating students and engaging them in learning. In environments where it is possible, they support and provide assistance to colleagues.
Professional Knowledge	**are expanding knowledge, with advice and guidance in:** • the practical application of curriculum, learning and assessment theory • current issues and initiatives in education.	**are competent in relevant curricula** • demonstrate a sound knowledge of current learning and assessment theory	**demonstrate a significant depth of knowledge in the theory and practical application, where appropriate, of:** • curricula relevant to their teaching speciality(ies) • learning and assessment theory and developments • the current issues and initiatives in education,
Professional Development	**are receiving professional support and encouragement to successfully:** • participate in available **professional** development opportunities appropriate to individual needs and school priorities.	**demonstrate a commitment to their own ongoing learning** • participate individually and collaboratively in professional development activities	**demonstrate a high level of commitment to:** • further developing their own knowledge and skills • encouraging and assisting colleagues in professional development
Teaching Techniques	**are, with professional guidance, developing effective strategies in regard to:** • programme planning and assessment design	**plan and use appropriate teaching programmes, strategies, learning activities and assessments** • demonstrate flexibility in a range of effective teaching	**demonstrate expertise and refined strategies in:** • the development and practice of teaching programmes and resources, learning activities and assessment regimes • highly effective teaching techniques

	• teaching techniques • development and appropriate use of teaching resources • use of currently-available technologies • evaluation and reflection on teaching techniques and strategies	techniques • make use of appropriate technologies and resources • evaluate and reflect on teaching techniques and strategies with a view to improvement	• evaluation, appraisal and reflection on their own and others' teaching practices with positive outcomes
Student Management	**are developing sound understandings and strategies, within the confines of available resources, to:** • manage student behaviour • recognise individual learning needs • develop positive and safe physical and emotional environments • recognise diversity	**manage student behaviour effectively** • establish constructive relationships with students • be responsive to individual student needs • develop and maintain a positive and safe physical and emotional environment • create an environment which encourages respect and understanding • maintain a purposeful working environment	**demonstrate expertise and refined strategies in:** • the development and maintenance of environments which enhance learning by recognising and catering for the learning needs of a diversity of students • managing student behaviour effectively
Motivation of Students	**are receiving professional guidance and demonstrating increasing competence in:** • setting expectations which promote learning • effective techniques in student	**engage student positively in learning** • establish expectations which value and promote learning	**demonstrate a high level of effectiveness in:** • encouraging positive school-wide engagement in learning • fostering and practising cultures of learning achievement

	motivation		
Effective Communication	**are demonstrating, with the support of senior staff, growing ability to successfully:** • communicate effectively with students, and families, • report on student progress • share information with colleagues	**communicate clearly and effectively** • provide appropriate feedback to students • communicate effectively with families • share information with colleagues	• **demonstrate particular skill and success in:** • communicating effectively with students • reporting on student achievement to students, and families, • inter-staff communications
Support for and Co-operation with Colleagues	**are receiving professional support and encouragement to successfully:** • build **professional** relationships • contribute where appropriate to **professional** development activities	**maintain effective working relationships with colleagues** • support and provide assistance to colleagues in improving teaching and learning	**demonstrate a high level of commitment to:** • encouraging and fostering effective working relationships with and between others • providing support and assistance to colleagues where appropriate
Contribution to Wider School Activities	**are demonstrating a willingness to be involved in activities which contribute positively to the life of the school**	**contribute positively to the life of the school and its community**	**contribute towards the effective functioning of total school operation, including the school's relationship with parents and the wider community**

Annex 7.

Protocol for monitoring the implementation of pilot profiles

	Indicator	Yes/No	Monitoring method					Comment
			Checking pedagogical documentation and evidences	Talking with teachers	Visit to a lesson	Interviewing students	Other	
Teachers planning and preparation	**Planning**							
	Teachers are using the pilot curricula?							
	Teachers are creating outcome achievement plans?							
	All outcomes are covered with outcome achievement plans?							
	Are teachers realizing teaching based on outcome achievement plans?							
	Is timeframe for outcome achievement suggested?							
	Are planed student activities in correlation with outcomes listed in curricula?							
	Planed teaching methods supports student activities and achievement of outcomes?							
	Is suggested use of teaching materials & aids is in correlation with outcomes?							
	Is periodical checking of level of outcome achievement and student assessment is scheduled?							
	Preparation							
	Teachers is preparing written lesson plan based on outcomes achievement plan?							

Protocol for monitoring the implementation of pilot profiles

	Indicator	Yes/No	Monitoring method					Comment
			Checking pedagogical documentation and evidences	Talking with teachers	Visit to a lesson	Interviewing students	Other	
Teaching materials, teaching aids and vocational equipment	**Teaching materials**							
	Is teacher producing and using teaching materials?							
	Is contents of the teaching materials adequate for all students and used for outcome achievement?							
	Volume of teaching materials is adequate to planed lesson structure?							
	Teaching materials contains clear instructions for students and teachers?							
	Teaching aids and vocational equipment							
	Teachers use a protocol for using teaching aids and equipment							
	Usage of teaching aids and equipment is supporting outcome achievement							

Protocol for monitoring the implementation of pilot profiles

	Indicator	Yes/No	Monitoring method					Comment
			Checking pedagogical documentation and evidences	Talking with teachers	Visit to a lesson	Interviewing students	Other	
Assesment	Teacher is using assessment plan?							
	Assessment (module/subject, outcomes) planning exists (can be within outcomes achievement plan)?							
	Are tests / knowledge tests developed and in use?							
	Skills assessment check list (or other ways for skills assessment) are developed and in use							
	Key competencies assessment check list is developed and in use							
	Different methods and techniques for assessment are used							
	Qualitative analysis of assessment process							
	Teachers are using Bloom's taxonomy while formulating questions?							
	Question used by the teacher are clear and understandable							
	Assessment criteria for test result is developed and in use							
	Assessment criteria for skills test and skills achievement check list are developed and in use							

Annex 8.

Background

21 pilot schools were visited during May and June 2007. In each of the schools visited, two trial-run teaching situations (three in the wood-processing school in Belgrade) within the teacher training module of Applied Vocational Pedagogy were run and discussed in detail after the lessons.
This was where all the teachers – whether they have been involved as curriculum developers, teacher trainers as internal or external CATs or simply having been chosen as teachers in the new profiles, either in the technical subjects or in the general ones - have to be present in their own schools and have to practice "being trainers in vocational training". Teachers were exposed to teaching and practical lessons and he/she observed several lessons of peer trainers and others in these modules.
This was carried out in collaboration with both CATs at each school and in addition with either a local short-term expert in teacher training. In some cases, it was carried out in collaboration with the technical experts.

In doing this, we worked with the method of "Trial-run Teaching Situations (TRTS)". TRTS are "teaching experiments" where the teachers will show where they are in their development as teachers of new occupational profiles. TRTS was performed in real schools and groups of teachers and teachers prepared lesson plans prior to the beginning of Applied Vocational Pedagogy seminars and then – during the two day training course – carried out teaching situations in front of the teacher trainers, their members of the peer group and other colleagues of the schools where the TRTS are performed. Trial-run teaching situations are considered to be learning opportunities for the teachers and was organised in such a way that learning will be organized in peer groups of teachers.
TRTS are "teaching experiments" of teachers in their schools in the presence of teacher trainers, teachers from the respective schools and peers. Some teachers may already be familiar with Micro Teaching, which are teaching experiments in the presence of teachers, trial-run teaching situations are teaching experiments with real students and were used throughout the whole teacher training programme in systematic in-service teacher training programme carried out within the MoES/CARDS VET II programme.
TRTS follow certain rules. Prior to the teaching situation, the teachers get an assignment from the teacher trainer for teaching a specific class in a specific vocational school. This lesson was prepared by him/her; either alone or in a team of teachers, and – prior to the teaching situation – he/she will hand out a sketch of written lesson preparation plan for the TRTS to all the participants.
Guidelines were given out to teachers on how to observe the lesson, the focus being on preparing the participants to talk about the teaching experiment later. It also helps to prepare the teachers to think about teaching processes when they have to prepare their own trial-run teaching situations by themselves or in small groups. Different tools to observe lesson plans will be given to them before TRTS begin[5].
When correctly practised, trial-run teaching gives invaluable quality feedback to teachers that will enhance their learning and give orientation to their improvements as vocational trainers. Experience shows that teachers are a little nervous at first, but trial-run teaching loses some of its "exam character" with higher frequency and varied settings. Hence, teachers tend to become more relaxed about them and look at them more as learning opportunities.
This is usually a positive learning opportunity because the real learning takes place in the counselling situations after the trial-run teaching situations. Up to this point, many teachers have usually planned and carried out a lesson by themselves and now they should be open to receive feed back from colleagues. This can be given in many forms and done in different settings[6] . It is very important here that the teachers themselves get into the position that they come to understand what to do differently and maybe better in the next TRTS.

[5] Annexes 9 and 11 show possible patterns how to observe lessons and to take notes, Annex 9: Form for Recording Trial-run Teaching Observations, Annex 11: Cobb-web model for Assessing Teacher Performance
[6] For the method practiced in Applied Vocational Pedagogy in Serbia see Annex 10: Cooperative Reflection Learning - Trial-runs Teaching Observations and Annex 11: Cobb-web model for Assessing Teacher Performance.

If the teachers really feel comfortable in these training situations, they may come up with their own observations like: “The students were so passive in participating at first. Do you think that could relate to my planning things too much for them, instead of involving them in the planning process a little more?” We are aware that TRTS are a new tool in teacher training in Serbia and we will try to introduce them carefully and consistently.

Selecting the Best 13 Cases of Teaching

The level of teaching in those 43 lessons was generally good, some were excellent. The excellent ones will be presented in more detail, each one separately on one page. The 13 best ones have been selected to be documented in this case study, starting on page 3 of this report.

The 13 best cases are documented separately and four categories for the description of the exercise have been used:

- Planning the Lesson
- Implementing the Lesson (Content)
- Implementing the Lesson (Methods and Communication) and
- Teacher Activity and Innovative Potential

These categories refer to the Teaching Lesson Observation Sheet, which had been given to the teachers beforehand and which had been discussed both in teacher training seminars, as well as in the process of cascading to the teachers from the pilot schools. This Teaching Observation Sheet can be found on pages 16 of this report. Integrated into this sheet, there is a summary of all the other findings for the exercise of Applied Vocational Pedagogy as a whole.

This case study could be used as a reference booklet for best practice for applied vocational teaching in Serbia and be used whenever the stakeholders in VET teacher training think it is necessary. It might also serve as guidance for those who would like to read about teaching cases that have been successfully implemented and work very well.

Trial-run Teaching **Case No. 1** with Ms. Biljana Kvaic

On: May 23, 2007
School: Secondary School "Svetozar Miletic", Novi Sad
Class: German
Topic: Der menschliche Körper (The Human Body)

1. Planning the Lesson

Lesson plan was prepared and handed out the before the lesson to all the participating 15 teachers from her school and the outside visitors. The focus of this class was on applying and using German (as a second language) in a context. The teacher planned to touch upon all the four language competencies: reading, writing, listening and speaking. In her planning process she had prepared phases for individual work; work in groups as well as in plenary sessions. Given that this class was taken in a hotel and tourism school, it was very positive to see that Biljana tried to make references to hygiene and she truly planned her class in an interdisciplinary way.

2. Implementing the Lesson (Content)

There were truly recognisable phases in the class and the students were asked to plan, carry out and evaluate their own learning in the 45 minute lesson. German was spoken all the time. The lesson was planned and oriented towards real life and put in the context of having problems with certain parts of the body (such as the head, arms, legs, chest etc.) and having to explain this in a simulated situation (at a doctor's office).

3. Implementing the Lesson (Methods and Communication)

The German lesson was completely carried out in German. Whenever her students would ask questions, the teacher answered in German, giving examples, definitions and images of what certain words would mean in German. The communication patterns were between teacher and students, but they were also partly between students and students. The teacher had prepared a lot of materials (pictures, photos, overviews of the human body both on the blackboard as well as in worksheets) and the material was used age appropriately and highly "didactisised". In spite of the many participants in this trial-run teaching situation teacher implemented everything which was planned.

4. Teacher Activity and Innovative Potential

It was emphasized self-orientation of the students and methodically teacher is very competent. This can also be said about the way of creating a good learning atmosphere among the students and teacher's relation with the students, which was characterised by teacher's appreciation, understanding, and giving support, whenever needed. The innovative potential in this class was when a pantomimic play at the end started and the students had to apply their German in a real-life situation. It was good to see that teacher let students speak freely in that situation without overly correcting grammar and pronunciation in the foreign language.

Trial-run Teaching **Case No. 2** with Ms. Svetlana Djurdevic

On: May 25, 2007
School: Secondary Technical PTT school, Belgrade
Class: English
Topic: A Juvenile Delinquent goes to Court

1. Planning the Lesson

Enormous amount of planning went into this class. It was planned for a 3rd year class in English, where students had to prepare for a role play in court, not knowing what to play, but possibly having to play different roles, such as the jury, the judge, the prosecution, journalists (inside and outside the court) and the juvenile delinquent. The class was prepared by systematic work in English vocabulary and was assisted by grammar work on passive tense construction which had gone on in the previous English lessons prior to the role play.

2. Implementing the Lesson (Content)

This was a class, in which once again all the four language competencies were touched upon: reading, writing, speaking and listening with a heavy emphasis on the last three. In conjunction with preparing a court situation, the students had to practice passive tense constructions, which had been prepared before and some of which were presented on a flip chart – accompanied with court yard language – so that the students could use them while they were making their statements as jury, journalists, prosecutors, or defendants. The level of English used in this 3rd year class for telecommunication technicians was amazingly high.

3. Implementing the Lesson (Methods and Communication)

At the beginning of the class each student had to pick a role card and then they had to prepare for their individual part. Text books and a computer dictionary were allowed for the preparation. In groups they prepared their roles and then everybody in a class of 28 students was active and everybody had a role to play in the final court scene. The jury in their verdict used two different sets of flip charts with sentences about the juvenile delinquent and red dots were finally put on those sentences that made most sense to the jury. The whole time English was spoken, both in the final plenary and in group work before.

4. Teacher Activity and Innovative Potential

Teacher showed possibility to be a true facilitator – remember what we had said in our seminars what we wanted from teachers was moving away from lecturer toward facilitator and coach - in this class handing over a situation to their students and only coming in as a “teacher” when time management was needed and a discussion on final conclusions needed to be steered. This was a class that was truly driven by the students: they planned, carried out and evaluated their own learning.

Trial-run Teaching **Case No. 3** with Mr. Nebosja Radekovic

On: May 28, 2007
School: Electrical engineering school “N. Tesla”, Nis
Class: History
Topic: The First Serbian Rebellion

1. Planning the Lesson

This class was planned as a repetition class in history and it was told the students beforehand to represent four different positions: the Serbian and the Turkish perspective, as well as the Austrian and the Russian one. The class dealt with the First Serbian Rebellion against the Turks and the teacher had prepared material that went to the black board after the teacher repeated information on different events between 1804 and 1812. It was planned in the style of “investigative journalism”, where the different students in their respective roles had to answer question within their roles and contribute to the different political positions held by Serbs, Turks, Austrians and Russians.

2. Implementing the Lesson (Content)

As a repetition, this class focused on the reasons for the First Serbian Rebellion against the Turks and followed the question what this rebellion meant to the Serbs. Together with his students in an investigative style, the answers on causes for rebellion were found: liberation, freedom and the beginning of a tax system. “Learning History” was clearly fun in this class and the teacher had prepared his class very well.

3. Implementing the Lesson (Methods and Communication)

Through the methods of role play and guided discussion, the involvement of the students in this history class was very high. The lesson was supported by a Power Point presentation. The students also sat in four different parts of the classroom with the Serbs and the Turks facing each other, the teacher “mediating and negotiating” between them and the Austrians and the Russians in the other corners.

4. Teacher Activity and Innovative Potential

The class was characterised by an excellent relationship between students and teachers and the students were enjoying every minute of the class. The teacher was an abundant history resource in these 45 minutes and made his subject very much alive during the class.

Trial-run Teaching **Case No. 4** with Mr. Slavisa Djurkic

On: May 30, 2007
School: Trade and catering school, Leskovac
Class: Catering
Topic: Preparing Filled Pancakes

1. Planning the Lesson

Slavisa Djurkic was very systematic in the planning of the lesson, driven by the intention to let the students explore their own learning paths and making sure that learning stayed with the students by making use of it in a creative homework assignment.

2. Implementing the Lesson (Content)

This class in catering and food service was the best proof of that any subject can be done using reflective learning, especially vis-à-vis the other class in catering and food service, which we saw in Leskovac. Didactical decisions were made clear in order to prepare the adequate content to a 1st year class for students with this background. Good job, fun to watch for participants and even more for the students.

3. Implementing the Lesson (Methods and Communication)

With the help of a PowerPoint presentation, the teacher set the stage for the topic of the class: Preparing Filled Pancakes. The topic got written to the flip chart. Then the teacher used a brainstorming to compare between what the students think needs to go into filled pancakes and what "really" goes into them. This was followed by group work (10 minutes time frame) with different tasks: preparation, fillings, rolling and process of coating. After that the students presented the findings from their group work and he finally let one student give an overview of the whole "production process" of making filled pancakes. The homework was based on students sending SMS messages to each other and – using reference books at home – bringing an interesting recipe for a pancake filled with ham to the next class.

4. Teacher Activity and Innovative Potential

Wonderful learning atmosphere was created during the class and teacher was very encouraging, supportive and structured in the lesson. The innovative potential was in dealing with four different tasks in group work and bringing it together to one good overview of how to make filled pancakes so that everybody could take that recipe home with them.

Trial-run Teaching **Case No. 5** with Ms. Jasmina Lilic

On: May 31, 2007
School: Technical School, Zajecar
Class: Mathematics
Topic: How we Use Trigonometric in Real Life?

1. Planning the Lesson

The teacher planned a very sophisticated lesson in mathematics, both from a content side as well as from a methods and communication perspective. The main planning aspect was how to deal with trigonometric in such a way that the students can see its importance in real life. To that end, the teacher had prepared a lot of different tasks and exercises for different groups that gave a lot of space for differentiation in the class.

2. Implementing the Lesson (Content)

Lesson started off with a PowerPoint presentation repeating the basics of sinus, cosinus, tangents and cotangents operations. Then four "real life" applications of trigonometric were given referring to usage in bridge building, electro-technical applications and in physics. These examples had an interesting learning appeal to the students and exercises were grouped in the categories of increasing difficulties, which gave her the great advantage to differentiate among her students.

3. Implementing the Lesson (Methods and Communication)

A very important part of this lesson was filled with organizing, carrying out and discussing group work with different tasks for different groups and thus introducing differentiation in a class with students who have different math abilities. Each group had a "control group" which had the same task and had to come to the same results.

4. Teacher Activity and Innovative Potential

The teacher had a very nice way of dealing with students: she was both technically demanding and encouraging with students, she helped during the work in groups, whenever needed, and gave additional hints for groups which were facing problems. The last group, which had a different task, did not come to the right solution, when asked to present it at the blackboard and she assisted and guided them to the right solution.

The innovative potential in this class was the connection between trigonometric and its usage in real life, which was guided and supported with a lot of hands-on examples. There was a chance to relate this subject even more interdisciplinary with other school subjects.

Trial-run Teaching **Case No. 6** with Ms. Biljana Devic

On: June 6, 2007
School: Food-processing, wood-processing and chemistry school, Sremska Mitrovica
Class: Serbian Language
Topic: The Importance of Humanism in the Renaissance Period

1. Planning the Lesson

Biljana planned a very sophisticated class within a subject that was quite complex and not so obvious. It became very clear in this class - which we saw with more than 15 colleagues from the school – which the teacher had made some very important decisions how to "wrap" humanism in the renaissance into an easily digestible form of 45 minutes. This was only possible because the teacher must have made a lot of didactic decisions on how to bring this topic to her 1st year students and how carefully she had chosen examples of the subject as well as methods of teaching.

2. Implementing the Lesson (Content)

Humanism as the backbone of the Renaissance period - this was the main message of this lesson and it got written to the blackboard in the first five minutes of the class after the teacher had developed this together with the students: "The Importance of Humanism idea in the Renaissance Period" - she developed together with her students the various reasons for origination of the Renaissance period and put it in a historical perspective of what came before and after the Renaissance. This was followed by working out the main aspects of living in the Renaissance period vis-à-vis life in the medieval ages.

3. Implementing the Lesson (Methods and Communication)

The teacher prepared a solid lesson in Serbian Language (and History) in a very lively way. She created spaces for individual and group learning with different tasks, introduced summaries of learning phases, prepared references throughout her lesson back to the information phase at the beginning of the lesson, brought different group work results together in a very structured way and finally planned to make sure that learning success control (i.e. in form of a learning quiz, which was "graded" by the students themselves) was part of the 45 minute lesson.

4. Teacher Activity and Innovative Potential

Very nice way of dealing with the students was a part of the lesson: teacher took them seriously, had enough humour to make it a relaxed atmosphere to learn in, encouraged individual and group learning and made sure that learning control was part of the lesson.

The innovative part of this class was certainly in the very careful preparation of the material, in didactical decisions of which content to put into a class about humanism and the renaissance period and what to leave out and also in working with a learning quiz.

Trial-run Teaching **Case No. 7** with Ms. Milica Vasic and Mr. Zoltan Alac

On: June 7, 2007
School: Technical School, Subotica
Class: Programming and English
Topic: Binary Search

1. Planning the Lesson

The lesson was planned in a truly interdisciplinary way between a teacher in Programming and a teacher of English. It was planned for a 1st year class and was meant to be an introduction into Programming, which – as a school subject - would start at the beginning of the second school year. The main task for the students in this lesson was to come up with an algorithm for binary search in the first half of the lesson and in the second half should verbalize the things they had learned in the first part in English.

2. Implementing the Lesson (Content)

Lesson started with the question on how to find a number between 1 and 100 in as few guesses as possible, where the answer would indicate only "a higher number or a lower number". After doing this game twice, the teacher asked about the tactics of this game and referring to learning effects and doing it systematically using an algorithm. After systematising it with the students, teacher put the algorithm to the black board and this is where the English teacher took over basically putting the whole exercise in the foreign language and having the students find rules in English how to deal with the mathematical challenge of finding an algorithm for problem solving. The content "binary search" is presented in small didactical "pieces" so that the students could take it home both in their mother tongue as well as in foreign language.

3. Implementing the Lesson (Methods and Communication)

Different phases were seen in this lesson: in the first part the focus was on solving a math problem in a question-related way and in the second part group work with basically the same task, but slight differentiation needed to be carried out and reported back to the plenary session and homework in English: finding synonyms of some of the words in the text handed out to the students, rounded off the session. The strings of communication were between teachers and students, as well as between students and students and of course among the two teachers doing "team teaching".

4. Teacher Activity and Innovative Potential

Both teachers were very active keeping their students' interest going. They gave their students encouragement and made sure that they were on track: in the English lesson for example, they were asked to speak up, not to talk to their neighbours in Serbian and things were always corrected immediately. It was interesting to see that the students were told to work with flash cards with the Serbian words on one and the English words on the other so that they could do systematic vocabulary work at home.

Trial-run Teaching **Case No. 8** with Ms. Ljiljana Krnasjski Belovljev

On: June 8, 2007
School: Poly-technical School, Subotica
Class: Physics
Topic: Developing the Formula for the Free Fall

1. Planning the Lesson

The teacher had prepared a detailed planning sketch for the lesson. The main objective was to have the students develop the formula for the free fall. The handout of the planned class was made available to all the other teachers present at the class prior to her physics lesson. In planning process, it was prepared phases for individual work, work in pairs, group work, and a plenary. All of this was supposed to take place in a 45 minutes class. She also prepared a lot of different materials meant to be used in physical experiments.

2. Implementing the Lesson (Content)

It was very good implementation of science content in a perfectly planned context. The students were supposed to develop the formula for the free fall in an inductive way of learning: by experimenting and throwing in hypotheses that eventually led to the formula developed entirely by them. Even before the lesson started, the attention of the students and the teachers was attracted by the blackboard covered with blank sheets of paper.
The class started by a short repetition of already known material from the previous classes. This information was important for the continuation of the work. In the second phase the teacher split the students into groups and gave them different tasks. They had to make an experiment, take notes, answer the questions and find out the formulas. After that, the students presented the answers and formulas. In the third phase, the teacher wanted to check the students' understanding through the exercises. Blackboard was the mind map with all the important *"headlines"* of the free fall.

3. Implementing the Lesson (Methods and Communication)

Using different methods and being coached and guided through their physics teacher, the students achieved the main objective: Developing the Formula for the Free Fall. The teacher had prepared the handouts and explained very well what to do. Group work was prepared with sufficient time for the students for understanding the tasks, carrying out the tasks and evaluating their learning. The teacher had prepared different sizes, shapes and weights of materials for the experiments (such as the balls and flat surfaces) and gave enough room for a wide array of different hypotheses.

4. Teacher Activity and Innovative Potential

On the very experienced way, teacher led the class as a coach, giving only instructions (but never solutions) and only "interfered" in the learning process when asked for.
This was one of the best examples of Reflection Learning classes, where the students make learning progress almost without noticing and come to new levels of competences through their own experience.
We all wished that we would have videotaped this wonderful physics lesson and we would like to encourage many more science teachers in Serbia to work like this!

Trial-run Teaching **Case No. 9** with Mr. Adam Ivanovic

On: June 12, 2007
School: Mechanical school, Pancevo
Class: Static
Topic: We Find out the Bearings Resistance on Bridges

1. Planning the Lesson

The teacher planned a lot of independent learning for students in finding out the basic principles of static in building a bridge and he had planned a lot of different learning arrangements from PowerPoint to wooden bridge models.

The teacher prepared a highly technical lesson and it was obvious that he had devoted a lot of time to questions like: How do my students learn best? Have they had exposure to this subject before? How can I raise their attention span to what I need in class and how can I hold it using different methods and learning arrangements? What is the future importance of this topic in their lives?

2. Implementing the Lesson (Content)

Teacher explained the different models and asked students to write down their usage into their drawing books in static. In the beginning of the class he uses a solid technical PowerPoint presentation to state the problem and then he moved to group work, in which his students had to find hypotheses for finding solutions and these had to be verified against working with the bridge model; a well-thought of homework finished off the class.

3. Implementing the Lesson (Methods and Communication)

The teacher carried out the students with a wide array of different methods from PowerPoint supported lecture to group and partner work as well as to a brainstorming technique with a flip chart. The communication was mostly between teacher and students, but during the group phase there was also student-student communication and what was most amazing was the fact that the teacher – by working inductively – created a lot of curiosity and interest among his students, who were really intrinsically asking question about the subject matter. Once again, it was the students asking questions in this class about things that they wanted to know, but did not know already, and not the teacher asking questions whose answers he already knew.

4. Teacher Activity and Innovative Potential

A teacher guided students through a technically interesting class with a lot of laughter and understanding. Here was a teacher who could break down a technically sophisticated matter in a way so that his students really understood the basics of the bearings resistance of bridges. What really impressed us as the lesson observers was not only the fact that he used wooden bridge parts, but also that he let his students develop hypotheses and falsify them in the course of the learning process.

Trial-run Teaching **Case No. 10** with Ms. Ivana Atic

On: June 14, 2007
School: Technical School, Uzice
Class: Electronics
Topic: Identifying Counters

1. Planning the Lesson

This class was planned for a group of 24, 3rd grade, students, in technicians for electronics profile. The main objective was to make counters visible and understandable for students in this lesson. This was planned to be done with practical exercises and models used in the lesson.

2. Implementing the Lesson (Content)

The teacher started off the lesson with reference to counting in real life and to real counters in traffic lights, in digital electronics, electrical systems and in oscilloscopes and demonstrated the principles of counters by students holding hands and responding to pressure applied to them. During her lesson, the teacher focused on content-correctness, especially visible during a presentation by one of the groups which had an error in it. It was somewhat astonishing, however, that the level of skills related to the students' main subject area among 3rd grade students was relatively low.

3. Implementing the Lesson (Methods and Communication)

The teacher worked with the question-related method of teaching, she used group work which was the same for all groups and she turned the group presentation into a competition among the groups with chocolate as reward for the group with the best presentation. A flip chart served as the medium to show the functioning of counters in electrical circuits and a homework assignment was given at the end.

4. Teacher Activity and Innovative Potential

Teacher created a positive learning atmosphere in the class. She demonstrated counters in a real setting. There might have been a good chance to reach higher levels of skills sets by working with faulty elements and having repair work or problem solving work as part of the lesson plan.

Trial-run Teaching **Case No. 11** with Ms. Natalija Zibrova - Djurakovic

On: June 18, 2007
School: Tourism and catering school, Vrnjacka Banja
Class: Catering
Topic: We Carry out Different Front Desk Operations in a Hotel

1. Planning the Lesson

This class was planned for a 2nd year class of tourism technicians with 15 students and, was guided by the question on how to carry out precise front desk operations in a hotel. She planned to integrate the technical aspects of front desk operations with a number of different methods, such as role plays, group work and a final summary on a flip chart summarizing the findings of the 45 minute lesson in catering, plus a self-evaluation of student learning using an assessment diagram.

2. Implementing the Lesson (Content)

The wide array of front office operations in a hotel was demonstrated in 10 cases. By doing this, the teacher allowed for the students to work on true competencies – in relating their skills to real life and real work situations – which were truly interdisciplinary (using different languages and team skills) and making sure that this found its way into making a systematic summary of what it means to "Carry out Different Front Desk Operations".

3. Implementing the Lesson (Methods and Communication)

The largest part of the lesson was dedicated to preparing, carrying out and evaluating student role plays in dealing with front office operations, such as foreign guests checking in, dealing with malfunctioning of toilets and showers, a French guest asking for a lunch box, asking for the bill and paying with e.g. credit cards, checks, cash, and finally working with repair people. This part was very lively and funny too, and students learned a lot having to do things themselves and seeing others. These role play situations were followed by a very good summary by the teacher who – based on the reviews of the role play groups – created a "flower of essentials" of front office operations. This learning arrangement made sure that students touched upon skills needed in hotel office operations in very practical and hands-on experiences.

4. Teacher Activity and Innovative Potential

Teacher led the students well through the 45 minute lesson, partly as a lecturer and partly as a facilitator. The latter part came during the role play and the first part was her role at the beginning and at the end of the class. It was amazing how analytical and at the same time creative she was when she put the summary of the findings on a flip chart and used a "flower" as the metaphor to show all the aspects of front desk operations. She created a good learning atmosphere throughout the lesson. The most creative potential was seen in letting her students plan, carry out and evaluate the 10 different scenes in front office operations.

Trial-run Teaching **Case No. 12** with Mr. Vladislav Mitic

On: June 21, 2007
School: Technical school for wood processing, interior design and landscape architecture, Belgrade
Class: Theoretical Wood Processing
Topic: Precision in Making Basic Planes

1. Planning the Lesson

Teacher planned this class within the new pilot curriculum for 2nd year carpenters. He had a relatively small group of 13 students in class. His planning process for this class was centred on the question of how to find mistakes in precision work in making basic planes and then how to solve the problems.

2. Implementing the Lesson (Content)

This was one of the few classes in the whole circle of lessons, which we saw in different classes, which really focused on trouble shooting, problem solving and finding way how to implement different strategies how to avoid making those mistakes in the future. The teacher focused both on content correctness as well as on guiding his students through a process in which they worked hands-on with real pieces that were faulty and in which – with some guidance from the teacher – they had to plan, carry out and evaluate their own learning as future carpenters.

3. Implementing the Lesson (Methods and Communication)

The teacher started off with a PowerPoint presentation and gave his students the task within a group work to find the mistakes in the slides he was presenting. This was followed by the different groups presenting to the plenary and the teacher writing the findings to a flip chart. After the flip chart was filled, the teacher started systematising the findings and comparing with the statements in the PowerPoint. In the second part of the lesson, the teacher handed out wooden pieces that had been worked on with the intention to get to a high precision in making basic planes. All of them were faulty and not up to standard and the students had to find the problems according to a number of criteria that were developed in an interactive way by the students and the teacher and then put the guidelines to the blackboard as guidance for future work.

4. Teacher Activity and Innovative Potential

There was a lot of space for investigative learning by the students in this class. The teacher guided the learning process, but was both an authority in theoretical wood processing as well as a facilitator of learning for the students. The really innovative potential was certainly the lessons being centred on finding out mistakes in work pieces and dealing with faulty elements. I would like to mention at this point that “by default” or even “automatically” this way of teaching leads to hundreds of questions by the students to their teacher and it also ensures that students – much more than in traditional classes – get into the “driver’s seat of their own learning”.

Trial-run Teaching **Case No. 13** with Mr. Dragisa Jeftic

On: June 21, 2007
School: Technical school for wood processing, interior design and landscape architecture, Belgrade
Class: Geography
Topic: Rivers in Serbia

1. Planning the Lesson

This class showed true usage of Reflective Learning in the class for technicians for landscape architecture. Teacher had planned a class in geography with a lot of love for details and the objective to shape out the overall picture of rivers in Serbia and - almost as a side effect - touching upon a lot of senses of his students and the observers: the ears, the eyes and the even the mouths of his students and observers got attention in interesting ways.

2. Implementing the Lesson (Content)

As much as the content "Rivers in Serbia" is – without doubt – in the curriculum for technicians for landscape architecture, teacher made an abundance of wonderful applications on how to teach this subject. Teacher had clearly made very good didactic decision on how to touch students with this topic.

3. Implementing the Lesson (Methods and Communication)

It is almost not possible to put more in methods in reflection learning in a 45 minute lesson! Almost all the senses of the students and the spectators were touched! Teacher worked with music clips and songs about rivers in Serbia, he had group work with different tasks, plenary sessions to be fed back into, he had overhead transparencies, a hat that was passed around served as the pool for little notes on group assignments and parents had prepared food specialties from those regions in Serbia where the rivers go through. He worked with maps of Serbia and maps of the regions where the rivers flow. Teacher had organized a presentation of groups at the end, which was used very creatively to put together the overall picture of river flow in Serbia.

4. Teacher Activity and Innovative Potential

The innovative potential of this class and the teacher – as described above already – was so obvious that it may raise the question: Is this really what we need to do in our classes every day? I believe that the answer should be: It all depends on what we want to do with these trial-run teaching situations in reflective learning and also with our own teaching! I strongly believe and I would advocate here that we want to show our best teaching to our colleagues and I also believe that it is a wonderful idea to build up a portfolio of excellent lessons and use them – whenever we feel like it.

Annex 9: Summary of Experience with Teacher Training Workshop on "Applied Vocational Pedagogy" in each Pilot School

We used the form that was handed out to the teachers for the Applied Vocational Pedagogy exercises in order to record Trial-run Teaching Observations and put our comments in the frame!

Trial-run Teaching Situation Observations with Ms./Mr…

Teacher Training Team, Internal and external CATs and teachers from the pilot schools, seen in Serbia in 43 different lessons in May and June 2007

On: Lesson:
In: Topic:
Class:

1. Planning the Lesson

Class Situation
Didactic Decisions/Selection of Content
- Reduction
- Setting priorities

Objectives
- Interdisciplinary
- Competencies
- Oriented towards real life and employment
- Educational

Process Planning
Intended Students' Independence
Articulation
Work Forms
Media and materials
Learning Success Control
Innovative Potential

Conclusion for Planning and Didactic Competencies of Teachers:

It seems as if this is a strong point in all the lesson planning. Didactic decisions are usually well made, even though somewhat more didactical reductions sometimes would not hurt, content correctness is a very high objective in Serbian VET schools and setting priorities is certainly strength in lesson planning. When it comes to the objectives, however, very often competencies are not touched upon, knowledge-orientation is the usual objective to be aimed for, and at best skills levels are planned, whereas still too often real "key competencies" in the European sense of problem-solving, trouble shooting and repairing faulty elements, for example, are not intended. Interdisciplinary work in lesson planning that is oriented towards real life and employment is still the exception rather than the rule. Very often intended students' independence in learning planning is reduced at the expense of too much guidance by the teachers/lecturers. However, learning success control is something that was planned for in almost all the lessons! There was a lot of amazing innovative potential in some classes, for example in identifying the formula for the free fall by using student experiments or in relating trigonometric to building bridges or in doing front office operations in role plays and using three different languages or in a geography lessons about the rivers in Serbia when teacher, students and parents had prepared local food specialties from the specific rivers in Serbia!

2. Implementing the Lesson (Content)

Recognisable Phases
Independent planning of students
Shaping out objectives
Independent carrying out by students
- Appropriate level for students
- Content correctness
- Setting priorities
- Oriented towards real life and towards employment

Independent assessment by students
Learning Success Control

Conclusion for Implementation Competency (Content):

In many cases there were written lesson plans handed out to me at the beginning of the lessons and clearly recognisable phases were envisaged in the planning and carried out in the implementation. Independent planning of students was seen in about 10 lessons of all the roughly 40 seen. Independent assessment of learning by students was seen in a good handful of cases. We would have liked to have seen more independent planning, carrying out and evaluating by students in the sense of true Reflection Learning and what is even more important in this is that students see the meaning of their learning for their real lives and, of course, for their real work situations and their future employment settings. Learning success control was seen in more than 80% of the cases in different ways: in quizzes, multiple choice tests, student-designed tests, teacher-driven question-related methods and many more.
It would be nice in the future to eventually see teachers get to higher levels of objectives, rather than, mostly, only knowledge and skills levels.

3. Implementing the Lesson (Methods and Communication)

Learning Arrangement
(Training, Lecture, Project)

Social Class Activity
(Group, Individual, or
Partner Work)

Didactic Function (Exercise,
Transfer, Application, Control etc.)

Patterns of Learning
Communication Competency
- Communication structure
- Clarity and Style
- Modulation
- Division of communication between students and teacher
- Media and material usage
- Student participation and means to make students participate

Conclusion for Implementation Competency (Methods and Communication):

(Almost) every lesson seen was prepared well and with a lot of details! IT was seen many different learning arrangements: all the way from lectures ("ex cathedra", fortunately not too many!) to training situations and little student-driven projects. In almost all the lessons we saw group work in different settings, very often combined with individual or partner work. The didactic functions of the lessons varied a lot: exercises changed with transfer of knowledge and skills in small projects. When it comes to group work, we always discussed a lot on how to organise group work, carry it out and have different groups present, especially when the tasks for each group were different. Media usage was very good and very creative: very often we saw excellent PowerPoint presentations combined with systematic work at the blackboard or using flip-charts or other devices.

The usual communication pattern is still a lot between teachers (asking questions) and students (trying to answer them).

In all those cases where teachers let go a little bit of the "reins" and reduced their role in the learning process, it seemed as if the Serbian VET students showed their creativity, intuition and cleverness in solving problems and finding new solutions.

We talked a lot about inductive versus deductive learning, e. g. What is telecommunication? - can be taught in two different ways: either by giving the definition up-front and letting the students then do exercises or tasks or alternatively by (inductively) letting the students find out what telecommunication or the free fall in physics or the First Serbian Rebellion or the importance of Humanism in the Renaissance time was and let them discover their own paths of learning by giving the room, the space and the time to structure their own learning.

4. Teacher Activity and Innovative Potential

General Behaviour/Activities
(Security, Calmness etc)
Promotion of
- Self-orientation
- Methodical competency
- Learning competency
- Social competency
- Morale
- Communication competency

Activities in disruptions
Educational competency
Relation with the students
- Appreciation
- Understanding
- Emotions

Conclusion for Teacher's Activities and pedagogical and social competencies:

This is definitely another strong point in those lessons that I have seen. In all the more than 40 lessons in May and June 2007, there was probably a combined experience of close to 1000 years of VET teaching! Teachers showed a variety of methodological competencies in teaching interesting topics with the help of new methods and they have proven their experience in relating well to their students; they were mostly true educators who not only had an understanding of the learning processes that went on, but also could related very well to their students at different levels, at an educational level, at the level of understanding their students and also in a few cases in knowing how to deal with disruptions and emotional difficulties.

Annex 10: "Cooperative Reflection Counselling"– Discussing Trial-run Teaching Situations Using Group Synergies

In the Serbian teacher training experience, Cooperative Reflection Counselling will be structured in six phases, plus an agreement both at the beginning and at the end. The agreement at the beginning sets the tone for the counselling and identified seating arrangements, promised total discretion and agreed on the moderators.

In phase 1, the trial-run teaching group always will have the first shot at looking back at the lesson and explaining the thoughts the group had prior to starting the lesson, what went as planned, what went well and what not so well.

In phase 2, the audience responds. In this phase only positive feed-back is allowed.

In phase 3, the trial-run teaching group seeking counselling received other feedback from the rest of the group. The participants could give all kinds of feedback and they could also refer to more formal remarks about didactical and methodological issues that they might have written down during the lesson, including their observation sheet (Annex 2) or including the cob-web model (Annex 3). It will be very important that the trial-run teaching groups will have plenty of chances to respond, especially to the more critical remarks.

Phase 4 other perspectives will be raised and multiple meanings that resulted from the problem layout. It will be important in this phase that everything could be said and that nothing will be forbidden! The participants came in with sentences like: In your position I would …; I make the hypothesis that …; I have a wild thought …etc.

In phase 5, the whole team will develop alternatives. It might be helpful to have sentences like "I as the teacher, student, teacher trainer, director, mother, chamber of commerce representative, would do …" The group is supposed to come up with a lot of alternatives and new patterns. The trial-run teaching group will then pick out what suits them best, and also will give feedback to the group.

In phase 6, the group decides what was good for them in that situation and which alternatives will be taken over in their future repertoire for reflection learning teaching. We might work with a role-play at the end of this phase trying out these new habits. It might be good exercising new patterns before going out into school routine again.

The final agreement was always helpful for the teaching team, because a certain degree of commitment was made. A sentence like "I am going to try it out and I will let you know next time!" was good when it was wrapped into questions like:

- Who does this with whom?
- What exactly do I want to do?
- How do I want to do it?
- When and where will I do it?

Annex 11: Cobb-web Model for Teacher Performance Assessment