



**Ministry of Education, Republic of Serbia
Vocational Education and Training Reform Programme**



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REPUBLIC OF SERBIA

**VET REFORM PROGRAMME – PHASE II: CAPACITY BUILDING AND
IMPLEMENTATION SUPPORT**

**Documentation of 13 Best and Most Successful
Reflective Learning Teaching Lessons in Pilot
Schools**

*- Based on Observations Made During “Applied Vocational Pedagogy”
Workshops in May and June 2007 -*

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Background

21 pilot schools were visited during May and June 2007. In each of the schools visited, two trial-run teaching situations within the teacher training module of Applied Vocational Pedagogy were run and discussed in detail after the lessons. This was carried out in collaboration with both CATs at each school and in addition with the local experts in teacher training and, in some cases, it was carried out in collaboration with the technical experts in tourism, Hanne Ditmar, and telecommunication, Mogens Probst, such as in Novi Sad and Paracin (tourism) and in Uzice (telecommunication).

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:¹

- 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.

¹ I should point out here that the selection of the 13 best cases has been made by myself and represent my view of what good teaching in vocational education should look like. I am aware that this is my subjective perspective based on the criteria we had discussed. However, I am fully aware that it is still my personal perspective.

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 "didactised". 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 Belovljević

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.

Summary of Experience with Teacher Training Workshop on “Applied Vocational Pedagogy” in each Pilot School

I would like to use 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 my 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:
School:
Class:
Topic:

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. I 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! I saw 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.