

Collection of Students' and Teachers' Experiences In Slovakia



COLLECTION OF STUDENTS' AND TEACHERS' EXPERIENCES IN SLOVAKIA

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Introduction

Our strategy for collection of the teachers and students experiences related to teaching and learning scientific subjects was to take direct contacts to schools and teachers. For this aim we used from the beginning our participation on the national project "Restructuralisation of the vocational secondary education in Slovakia" especially contacts to Association of the car industry in Slovakia. From the 5 vocational secondary car schools we involved in the project 3 schools and the next 2 schools are one is vocational secondary school for gastronomy and tourism and the last one is secondary school for electrical engineering in Bratislava.- this school is level ISCED 3 with a level final examination.

Results of the recruiting:

We involved in the project 5 schools.

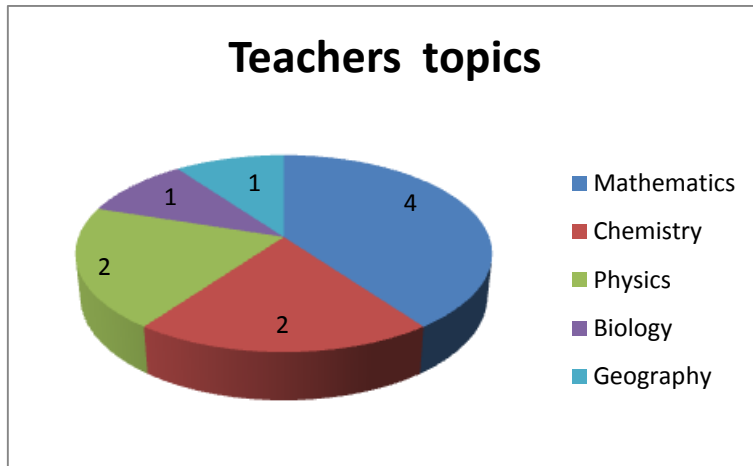
Schools:

1. Secondary school of electrical engineering, Hálova 16, Bratislava
from this schools were involved 2 teachers
2. Vocational secondary schools for gastronomy and turism in Nitra
from this school were involved 3 teachers
3. Secondary technical car school Bratislava
from this school were involved 2 teacher
4. Secondary technical car school Prešov
from this school were involved 1 teacher
5. Secondary technical car school Trnava
from this school were involved 2 teacher

All this schools we contact with emails, phone and direct contacts – meetings with directors and teachers. This schools are from all Slovakia and from this reason we organised our first workshop in Bratislava on 2. of May 2014. All project activities we have to moved on month later. With collection of teachers and students expriences we started after this workshop. Workshop lead and moderated Vlasta Dúbravov from TRANSFER and expert Mgr. et. Ing. Jozef Strakoš , PhD. from Pedagogical Faculty Comenius Univerzity in Bratislava. On workshop were identified potential problems with teachers work on the end of the schools year, fear from publication of the own experiences and language problems. Teachers dont speak english. We have to solve problem with non profit motivation.

Recruiting of the Portal users

In teachers work group are now 10 teachers of scientific topics from state vocational secondary schools – 4 for mathematics, 2 chemistry, 2 physics, 1 biology a 1 geograhly.



In this teachers group are teachers from all ages categories. This information is important because is important for evaluation of the WP1 – using of interactive teaching methods in science education. In project teachers is working with 230 students and students experiences we have from 102 students. Analysis o the students experiences we will presented on the first national conference in Slovakia with participation of teachers and students.

Relating to the teachers motivation we are focusing on searching for answers of questions „What obtain teachers from participation on this project? and „What need teachers for the motivation to do all this project aims and goals?“

From all answer about benefits we will show you some as:

To be part of the work group, to create work groups for change of information and in future for development of the textbooks for scientific topics on vocational secondary schools

To obtain information about teaching of scientific topics on project web page and from existing projects a from colleagues.

To create on your own school “community“. Teachers will show students how to reflect your own learning process and teaching process – they will interest in what helps students and what are the obstacles.

Teachers will participate on national project workshop in November 2014 and November 2015.

Teachers gain inspiration from portal database a will try one or more in you teaching and will show what they do better.

We think that we can give during the project teachers opportunity to:

Be appreciate on your own school (national coordinator will send to each school information about all teachers)

Feeling comfortable by the work which other and become clear instructions about goals and project aims;

Find answers - about sense of this project for your work as scientific teacher, students and for your school etc..

Students motivation and involving students to the project is for teachers a big problem. They have not so much experiences with asking and obtaining feedback from students on your teaching.

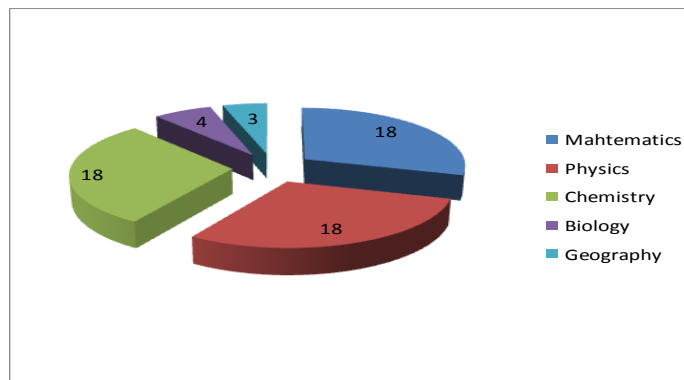
How to plan meeting with students when I will found out how they see my topic?

How I can found out what know students about your own learning, about your preconditions and interests?

How I can interpret for me students experiences in connection to the topic and teaching methodology?

Collection of teachers' and students' experiences

Until 30.6.2014 we collect 62 teachers experiences and 102 students experiences and frelections from teaching in science topics.



We are not do corretions in teachers experieces. During the writing of the teaching experiences teachers have questions and verify your understanding of this taks. Support and couching gave teachers Vlasta Dubravova and expret Jozef Strakoš. For some of the teachers was this support very helpful.

First analisys of the teachers experieces bring us very interesting findings, which we will use for the next support for teachers, for your needs and for the filling the project aims. We found out that the same scholl level (3 ISCED) and the the same curriculum allow compare experiences from the same topics and allow compare teaching methodology which teachers use by science education.. Differences between scholls in material eqiupment and facilities are projected in teachers experieces and teaching process. Teachers use ITC programmes but only for support to your explanation. They dont teach by active experimental process.

Facebook is in Goerudio project recomended as **communication tool**. Suggestion fo creating this group in Slovakia with posibble connection to students group was not succesfull. Teachers dont supported this from this reason we will go step by step. After finishing this teacher experieces we will create our own group and we will invite all teachers and students. Teachers discuss about using this tool g+ (google plus).

Twitter is next possibility how we can communicate and change experieces in our project. Writing information about Twitter become teachers via email. Teachers have not experieces with this communication tool and we will dont use this tool.



Conclusion

Starting difficulties with teachers involving we go through mobilisation of our personal contacts and in the first project period with creation of the teachers work group and support by the writing of the teachers experiences. We try all to do that all aims will be and tasks have to be done before second partners meeting.

From teachers experiences is clear that this group of teachers is internally very different – from traditionally teachers to young teachers which involved students to learning process through modern ITC technology, experiments etc.

For the successful project continuing is necessary to do next steps:

- To process teachers experiences (content analysis) – as base for preparing of our 1. conference. The aim is to bring teachers a students new inspirations and organise change of experiences.
- To use method „Open space“ for activation participants on the conference for identification your interests in connection to science education on vocational secondary schools
- To keep contacts with teachers group, support teachers individually, to appreciate teachers for your work in the project.
- To explain the aim - WP 2. so, that teachers from working with portals can gain inputs for own teaching process and for more involving of students to the project.
- To create facebook group in which can meet teachers a students together before our 1. Conference and in this way they can influence content and form in harmony with your needs

Notes: The list presented below is the result of the teachers' and students' experiences, which have also been published on Goerudio site. The list was created for our own purposes, and contains the real teachers' names to each factor and solution.

Teachers

Trouble Making Factor:

- Deficient knowledge from the previous studies
- Deficient fixation of the previous study
- Different background level of the students from elementary school
- Deficient (or no) skills development, e.g. chart or calculator tasks, construction tasks, or drafting with the scribing tool
- Curriculum topics change too fast – these content and additional demands do not allow any flow between the certain science subjects at the vocational schools

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- Lack of financial security – the school distributes old and traditional textbooks (published from 1985), students do not have chemical periodic table, laboratory, computers, interactive blackboard etc.
- Students do not bring their school utilities – calculators, charts, textbooks ...
- Students very often do not realize such a big effort has always been needed to extend the world's knowledge, as well as their own new knowledge. There is missing information about the people who stand behind this knowledge in the textbooks.
- Students do not realize connection between the studies and real life situations in vocational schools.
- Students take world for granted – the teaching process should force them to reflect the complexity of the world, in which they live, but they do not have any interest to understand the basic mechanisms of the world and take responsibility for its functioning. The science subjects could be the main tool for demythologising this world, and moreover, it should be the subject, which evokes amazement and humility.
- High number of students in one classroom (31) in vocational school. Theory background increase at the expense of the practice. (Math – 1 lesson a 1 hour a week)
- If the students are diagnosed with the learning disorder (dyslexia, dysgraphia, dyscalculia, dysortographia), or with the hyperactivity, they might have problem remembering the names of chemical elements, patterns, and they are behind with the theory.
- Working with the internet – not all of the students have computer at home, therefore they are very often unable to bring their homework, while there is no access to the electronic textbooks.
- The real life experience – students consider this type of learning a relax and not a task.

Students

Trouble Making Factor:

- The subject is not useful for future (physics for auto mechanics) – that is the reason I am not very interested.
- I am preoccupied with the different problems, I am not interested in study as such, but the vocational subjects are interesting.
- The previous experience with the subject is not very positive (the teacher, too general, no visualizations during explanation)
- I do not invest any time into preparation at home, I count on that I will learn everything at school.
- Remembering all the patterns, definitions, too much notions seems to me fruitless, I do not remember too much theory
- Help needed while working with mathematical patterns
- Difficulties with understanding the topic/curriculum, while I am not able to imagine and visualize things, because it is all out of my real life.