Dear Maryse,

Thank you for belonging to a wonderful group of 'New ways of teaching mathematics and physics – practical and cross-curricular approach, 2012' participants. At the end of the course there was not enough time for a deeper discussion/evaluation of the course. But evaluation might be even better from a time/place distance... That is the reason for sending this mail to some of you, who – according to our observations – most actively participated at the course ... and are - according to our estimation – inclined to write some words :).

Please, would you read the following guidelines/question and write a short report, which could improve the course in the future?

How would you evaluate this course comparing to other similar courses you have attended? Can you especially address the balance between theoretical lectures and examples from (to be used in) class work?

C'était parfait. Très bonne organisation, bon équilibre entre les intervenants, bon équilibre entre les présentations et les workshops; de plus pour quelqu'un comme moi qui n'a pas trop aimé la physique durant les études, les exemples présentés étaient concrets et la théorie d'un bon niveau mais accessible; cela m'a réconcilié avec la Physique; je pense cependant que pour un professeur de collège cela peut paraitre difficile.

Was the communication/correspondence before the course (applying procedure) efficient?

Aucun problème de communication, tout était très clair. De plus on a vite compris qu'il fallait être à l'heure!

FOR MATH TEACHERS:

A hint was given to omit Matura exam lecture and put a more theoretical lecture about connecting math and science (as it was Monday's presentation by Simon)? Please, give arguments.

Au contraire, j'ai trouvé très intéressant l'intervention de votre collègue. j'ai beaucoup aimé la façon succinte dont elle a présenté le système scolaire slovène et la recherche en groupe du sujet d'examen. A conserver à mon avis. D'ailleurs je proposerai ces sujets à mes élèves de Terminale.

FOR PHYSICS TEACHERS:

Were the sessions for physics teachers appropriate (You have just to carry out the experiments; there was no lecture about physics). What – if yes - additional more theoretical lecture would you prefer (instead of two experiments for example)?

FOR ALL (AGAIN):

Did the course altogether fulfill your expectations?

Yes, for sure.

Would you be able to use at least two examples/ideas from the course in your teaching? Did we give you enough material to easily implement it? Did the course give you an additional impetus to invest even more in the preparations and novelty approaches to your lessons?

Maintenant je sais que pour un prof de physique 5,0 n'est pas égal à 5! J'ai demandé à mes collègues de physique s'ils avaient le genre de matériel que tu as utilisé pour enregistrer le mouvement: apparemment non. En France, le programme de Physique a totalement changé: ils n'étudient le mouvement, la vitesse qu'en Terminale.

http://cache.media.education.gouv.fr/file/special 9/21/3/physiquechimieS 155213.pdf

http://www.education.gouv.fr/cid53327/mene1019556a.html

Je ne pense pas que je pourrai directement utiliser les exemples vus en Slovénie; par contre j'animerai cette année un atelier avec ma collègue de Physique : "les sciences dans la vie quotidienne" et cet atelier Maths en jeans.

Je retiendrai également la façon dont Damjan a su remotiver tout le groupe avec son ordinateur qui ne marchait plus!

If so..., how would you (write up to two paragraphs) argue the quality/worth of this teacher training course? You can rewrite some of what you wrote above. (Imagine you are presenting the course to some colleagues.)

Cette formation est très enrichissante. Elle permet de réconcilier la Physique et les Maths et ceci avec des exemples très concrets et très simples.

L'organisation du stage est parfaite et les intervenants de très bonne qualité. De plus l'anglais utilisé pendant les cours est de bonne qualité et très accessible. Ceci permet aux professeurs de sciences de combiner un stage tourné vers les science et de faire un stage linguistique.

Les journées ne sont pas trop longues ce qui nous a permis de découvrir Ljubljana et quelques coins pittoresques de Slovénie, un pays qui gagne à être connu.

Other suggestions/comments?

Non, tout était très bien.

Author: Jorge Manuel Boavida Fernandes Diniz

1. This is the first time I was a recipient of a Comenius grant from the European Office in Portugal to attend a training course, therefore, I cannot compare it with any another training course.

2. Before the start of this training course the correspondence was efficient.

3. I consider that this training course presented a very good balance between theoretical lectures, hands-on experimental activities and cultural visits.

4. The experimental sessions for physics teachers were appropriate although the written material that supports these practical activities should be more detailed and not so summarised, taking into account that physics teachers are not necessarily graduates in physics and that each teacher does not know everything by heart he/she has learned while studying at

the university (in many cases many decades ago). On the other hand some teachers are devoted to certain levels of the secondary education and others only teach very poor students in vocation/technical education with very simple approaches to physics that cover very superficially some chapters of a normal physics syllabus.

5. I would not favour at all replacing the experiments that were performed with theoretical lectures. I will be able to apply several ideas from this course in my own teaching and I am ready to explore further, in more detail, some ideas presented in this training course.

6. This course did not completely fulfill my expectations because I expected to learn Geogebra. Being an absolute beginner I expected to be guided through Geogebra. It was unfortunately that the existence of different levels of knowledge of Geogebra from the participants of this course was not taken into account. As a consequence only some participants took advantage of the offering of Geogebra because I could only follow the first example at the University of Ljubljana. However this course gave me the motivation to try to learn Geogebra by myself. I can agree that I received plenty of material and that the course gave me an additional impetus to invest more in the preparations and novelty approaches to my lessons in physics.

7. On a global balance I consider that it was very much worthwhile to me attending this training course, that its level was very high and a lot of effort and work was invested by the three major trainers (Mr. Tine Golež, Dr. Simon Zell and Dr. Damjan Kobal) to make this course a good investment for European teachers at large.

Coimbra, 29th August 2012

Dear Tine&Damian&Simon

For us, the course was very interesting. Mathematics is a science of nature, environment, daily life.

The topics covered were varied and very good to deal

with in class to practice math lessons. I will prepare a presentation for lifeguard problem, the problem with diet and heredity problem.

Information about exams in Slovenia have occasioned a good exchange.

I really appreciated: program activities and the seriousness with which it was met, the high density of information,

reliability and attractivenessorganizers, thematic range. Fellow participants from other countries were very good collaborators.

We spent a wonderful week, I attended a very interesting activities organized and supported by wonderful people, I visited a very beautiful country. Thank you very much.

I wish you health and many professional successes.

Iuliana&Adrian TURCU

Dear Tine,

My presentation is finished, now I can write some thoughts.

1) The content of the course was excellent, all presentations was well-considered, we had time for thinking, asking question. Of course, teachers always want more examples, but in my opinion, it is better to spend more time on some examples.

2) Balance between theoretical lectures and examples from (to be used in) class work was very good.

3) I do not think that teachers would learn geogebra before coming themselves. I feel very comfortable myself with different math programs and it was not hard to get beautiful ideas about using it in teaching process. Maybe you can mention that it would be helpful to know geogebra, but optional or to split participants into 2 groups- with and without knowledge's.

4) I liked matura exam presentation, only this presentation part could be shorter and more attention paid to real tasks. I am math teacher and I like to compare our exam to other countries exams.

5) I will use many ideas from the course. And I will try to find more examples myself in cooperation with physics teacher. I have idea to do some lessons in pair with other subject teacher.

6) About materials- I wanted to reflect some presentations and discovered that there are not any Damjan Kobal's presentations in memory stick. I would be happy to have them if it is possible.

7) If I would present this course to somebody I would say: You will meet handsome and very sophisticated scientists, rich presentations which are clearly explained, beautiful excursions. The content of the course was excellent, all presentations were well-considered, we had time for thinking, asking question. You will get many new ideas for your daily work and for wider thinking. You will get pleasure of thinking!

Hope this will help you.

I will be happy to receive presentations I mentioned above.

I wish you good teacher students next time,

with kindest regards, Evija Slokenberga

Dear Mauro,

Thank you for belonging to a wonderful group of 'NEW WAYS OF TEACHING MATHEMATICS AND PHYSICS - PRACTICAL AND **CROSS-CURRICULAR** APPROACH, 2012' participants. At the end of the course there was not enough time for a deeper discussion/evaluation of the course. But evaluation might be even better from a time/place distance... That is the reason for sending this mail to some of you, who - according to our observations - most actively participated at the course ... and are according to our estimation - inclined to write some words :).

Please, would you read the following guidelines/question and write a short report, which could improve the course in the future?

How would you evaluate this course comparing to other similar courses you have attended? Can you especially address the balance between theoretical lectures and examples from (to be used in) class work? THIS WAS AN EXCELLENT COURSE Was the communication/correspondence before the course

(applying procedure) efficient? YES IT WAS

FOR MATH TEACHERS:

hint was given to omit Matura exam lecture and put a more theoretical lecture about connecting math and science (as it was Monday's presentation by Simon)? Please, give arguments.

FOR PHYSICS TEACHERS:

Were the sessions for physics teachers appropriate (You have just to carry out the experiments; there was no lecture about physics). What - if yes additional more theoretical lecture would you prefer (instead of two experiments for example)? i PREFERE EXEMPLES OF PRACTICAL EXPERIMENTS, USING LOW COST DEVICES. FOR ALL (AGAIN):

Did the course altogether fulfill your expectations? ABSOLUTELY YES

Would

you be able to use at least two examples/ideas from the course in your teaching? Did we give you enough material to easily implement it? Did the course give you an additional impetus to invest even more in the preparations and novelty approaches to your lessons? YES YES YES

If so..., how would you (write up to two paragraphs) argue the quality/worth of this teacher training course? You can rewrite some of what you wrote above. (Imagine you are presenting the course to some colleagues.) I SUGGEST TO ATTEND THIS COURSE BECAUSE IT IS A PERFECT BALANCE BETWEEN LEARNING AND HOLIDAYS Other suggestions/comments? Dear Carole,

Thank you for belonging to a wonderful group of 'New ways of teaching mathematics and physics – practical and cross-curricular approach, 2012' participants. At the end of the course there was not enough time for a deeper discussion/evaluation of the course. But evaluation might be even better from a time/place distance... That is the reason for sending this mail to some of you, who – according to our observations – most actively participated at the course ... and are - according to our estimation - inclined to write some words :).

Please, would you read the following guidelines/question and write a short report, which could improve the course in the future?

How would you evaluate this course comparing to other similar courses you have attended?

It was the first course that I attented, and it was a very good surprise. I learned a lot of things which i can use during my lesson in france

Can you especially address the balance between theoretical lectures and examples from (to be used in) class work?

the balance between the two type of lesson was good for me

Was the communication/correspondence before the course (applying procedure) efficient?

The description of the lesson was good.

FOR MATH TEACHERS:

A hint was given to omit Matura exam lecture and put a more theoretical lecture about connecting math and science (as it was Monday's presentation by Simon)? Please, give arguments.

I think it is a good thing for me to know how nationnal exam are in the other country. But maybe, if you want to follow more the tittle of the course you can put a lecture connecting math and science.

FOR PHYSICS TEACHERS:

Were the sessions for physics teachers appropriate (You have just to carry out the experiments; there was no lecture about physics). What – if yes - additional more theoretical lecture would you prefer (instead of two experiments for example)?

FOR ALL (AGAIN):

Did the course altogether fulfill your expectations?

YES, YES, YES

Would you be able to use at least two examples/ideas from the course in your teaching?

Yes, i use geogebra on my lesson, so i will use example and ideas of Damjan. But i will also try to work with my physics collegues to use the curve you show us during the lesson.

Did we give you enough material to easily implement it?

I think yes

Did the course give you an additional impetus to invest even more in the preparations and novelty approaches to your lessons?

yes

If so..., how would you (write up to two paragraphs) argue the quality/worth of this teacher training course?

the links between physics and math using the curve of a ball was interresting. it show me that it could be very usefull to work with my physics collegues. it was also very interresting to

work with geogebra, however it was to short ... not enough (never !!) time to learn all the hints.

You can rewrite some of what you wrote above. (Imagine you are presenting the course to some colleagues.)

When i speak about the course, i first say that the course take place in a beatifful country. I really enjoy it.

Then i say that I learn usefull things for my lesson in france such as ICT.

With this course I also learn how it is important for students to understand why, and to explain the links between each school subject.

Dear Ezgi,

Thank you for belonging to a wonderful group of 'New ways of teaching mathematics and physics – practical and cross-curricular approach, 2012' participants. At the end of the course there was not enough time for a deeper discussion/evaluation of the course. But evaluation might be even better from a time/place distance... That is the reason for sending this mail to some of you, who – according to our observations – most actively participated at the course ... and are - according to our estimation – inclined to write some words :).

Please, would you read the following guidelines/question and write a short report, which could improve the course in the future?

How would you evaluate this course comparing to other similar courses you have attended? Can you especially address the balance between theoretical lectures and examples from (to be used in) class work?

According to me, at least 70% was real life activities which we can use in the class.

Your physics-math connection, Simon's biology-math and chemistry-math connections, Damjan's geogebra class and wonderful presentations gave us a vision.

Your real demostrations were very attractive for me.

Was the communication/correspondence before the course (applying procedure) efficient?

Communication with you was perfect ③

All information, Markun transfer, bus ticket, maps, internet access codes were all well organized.

Maybe you also send the 5-day program to participants around June, so that they can have a chance to have a look at GeoGebra kind of stuff.

FOR MATH TEACHERS:

A hint was given to omit Matura exam lecture and put a more theoretical lecture about connecting math and science (as it was Monday's presentation by Simon)? Please, give arguments.

In my opinion, you can omit a whole afternoon about Matura Exam and do more GeoGebra to develop it.

In the Matura section we learnt the system of your country, the exam is applied to 8000 students and checked by many teachers etc. And we solved math problems on the board... It does not help any of our teaching strategies. In Turkey we have a multiple-choice exam, checked by computers since there are 2 million participants every year!

FOR PHYSICS TEACHERS:

Were the sessions for physics teachers appropriate (You have just to carry out the experiments; there was no lecture about physics). What – if yes - additional more theoretical lecture would you prefer (instead of two experiments for example)?

FOR ALL (AGAIN):

Did the course altogether fulfill your expectations?

The course and the trips in Slovenia was mooooore than my expectations. There were nice participants from all around Europe. I made friends with Greek, Portugese, French, Turkish and Italian participants. I think the Romanian participants could not integrate because there were a lot of Romanian, they did not need anyone else. I do not know the procedure but maybe you should not accept too many participants from the same country. But for me 23 participants is an optimum number for a class. (Between 20-25)

Would you be able to use at least two examples/ideas from the course in your teaching? Did we give you enough material to easily implement it? Did the course give you an additional impetus to invest even more in the preparations and novelty approaches to your lessons?

I will use "sound of numbers(rational/irrational)" from Damjan's documents for Grade 9.

I will use the application of bases (Damjan's guessing 82) for Grade 9.

My colleauge will use the "egg" for Grade 12.

The idea of "how much is 10 to the power of 77" can be a good thinking for my students.

I will introduce where we see parabola in our daily lifes (car lights, physics perspective) for Grade 10.

Your team's giving whole documents to us was really very polite, I will use them.

If so..., how would you (write up to two paragraphs) argue the quality/worth of this teacher training course? You can rewrite some of what you wrote above. (Imagine you are presenting the course to some colleagues.)

The leaders were very well organized from the beginning till the end. They have prepared an envelope with all the information about the course, the city, the transportation and everything. We had all the scheduled wonderful seminars (which I can use to enrich my courses) on time as planned. We had wonderful excursions. (I think the Thursday tour should be offered every year) We had enough printed and not-printed documents.

Other suggestions/comments?

On October 13th, we will have "Autumn Teachers Comference" in İstanbul and my colleague Betül and I will make a presentation about how to apply to Comenious projects and the content of your program. I may send you a copy of presentation ⁽³⁾

Thank you for your efforts.

Kind regards,

Tine and course team