

Mission report

Virtual Patients for BH CAMPUS training session 10-14 April 2007 Heidelberg

Between 11-13 of April we attended a «CAMPUS Training workshop» in Heidelberg. Our group consisted of two medical doctors (Srdjan Lozo, Dejan Bokonjic) and two engineers (Srdjan Masic, Bozo Petrov). The workshop was led by Dr. Soeren Huwendiek and Mr. Matthias Bauch.

CAMPUS system and case development

At the beginning of the seminar we were introduced with basic characteristics of the CAMPUS software, which is practically applied in HeiCuMed. Dr. Huwendiek gave us a presentation about CAMPUS itself and a practical demonstration of the integration approach at the pediatric department. After this introduction we run step after step through case development using the CAMPUS authorizing tool. Special emphasis was put on adaptation of the cases to the students' level of knowledge and fitting into learning outcomes of courses. From a technical point of view he gave us information how to solve different problems which can be encountered during preparation of cases and how to run the program.

Also we learned how to import multimedia files from different sources to a case file. We also learned how to import and export cases from different sources into the CAMPUS system.

After a break we continued our exercise by creating two cases, one from Internal Medicine and one from Pediatrics, using the knowledge got during previous presentations. We analyzed the cases and discussed about different problems, which aroused during the case preparation.

Integration of CAMPUS (Virtual Patients)

Integration of Virtual Patients into existing curricula on our BH Medical faculties was one of the key points of this workshop. As preparatory measure for this workshop we translated our existing pediatric curriculum and prepared learning outcomes.

During the workshop we analyzed the content of the curriculum of the Bosnian pediatric course and identified pediatric nephrology as a weak point of the existing curriculum, which would benefit from using Virtual Patients. After evaluation of existing cases we decided to use the following two cases: "Schoolchild with brown urine and bad general condition" (Post streptococcal glomerulonephritis) and "Toddler with edema" (Idiopathic nephrotic syndrome). Due to the fact that we do not have real patients with coxitis often, we decided to use the case "Toddler with limping" (Coxitis fugax). This case will be integrated into chapter 18 of the Bosnian curriculum named „Nervous system-neuro-muscular diseases and diseases of skeletal system“. Due to the fact that fever in general is not a special issue during the pediatrics course we decided to integrate the case „Infant with fever“(Bacterial meningitis) into the "Introduction to Pediatrics" session.

On the beginning of the pediatric course we will give an introduction about the CAMPUS software and practical explanations how to work with the CAMPUS-Player.

We were planning to organize a pilot project on Medical faculties in BH in the third INTEL-M project year and to introduce different teaching and examination methodologies in teaching process. Computer based training (Virtual Patients) is one of these methodologies. In the

beginning we are planning to upgrade the existing curriculum on few courses by introducing CAMPUS. All students in Pediatrics will pass 5 cases during this academic year. These cases will be carefully selected (for the pediatric course these are already selected - as mentioned before) by using different approaches. Cases will simulate patients with diseases which are not available for students practice in everyday work. In the following chapter “milestones” you will find the concrete planning of the integration scenarios.

The pilot project will be carefully followed by evaluation studies to measure student satisfaction, learning outcomes, and the perception of the different integration scenarios and final results of the project will be submitted to faculty authorities. We are planning to work on establishing a data base of cases for all BH Medical faculties.

Technical aspects of the CAMPUS system:

Mr. Mathias Bauch explained us technical aspects of the CAMPUS software.

After an introduction he explained how to set up this software on a server and gave us clear instructions about it. Also we have passed all the possible problems that can appear while we are setting up the CAMPUS software on a server.

After that we learned how to create multiple user accounts for each possible department that could use this software, he explained also possibilities that every student can have an own account, because that is the way how we can follow up their improvements while students are resolving cases on the CAMPUS software.

He gave us instructions how to translate the CAMPUS software on our languages and he provided us with information about all software support that we need to deal with possible problems.

We discussed about hardware components and performances for server that we plan to use.

We have learned how to import different types of media files, and how to share it.

We agreed that he will help us with possible problems that occur while using this software, and installation of future updates of the CAMPUS software.

Our next steps are to establish a faculty network for implementing this software and to equip our workspaces so that we can apply this software in the teaching process.

We will deliver all technical support for using this software on our faculties.

Milestones:

April/July:

Getting the equipment (computers etc.)

Translation of the CAMPUS vocabulary:

- Mr. Bauch will provide the Bosnian group with excel sheets with the vocabulary to translate the English version of CAMPUS into Bosnian languages
- The Bosnian group will organize the translation of the vocabularies

Preparation of the cases:

- Translation of the existing German cases, which were chosen to use.
Each case will be translated and discussed with Bosnian experts in the particular field and possibly modified.
- Creation of new cases: new cases (at least one in Pediatrics and one in Internal Medicine) will be created and discussed with Bosnian experts in the particular field.

Information, presentation of the integration proposal and discussion with faculty authorities.

Choosing „friendly departments“(Pediatrics, Internal Medicine, and one other department e.g. neurology) where are we are going to start with the pilot project.

The pilot project will be organized first on the medical faculties Foca and Mostar.

Two persons per course will be in charge of conducting the pilot project.

Pediatrics: Dejan Bokonjic and Tanja Gavrilovic
Internal Medicine: Srdjan Lozo and Jelena Vladicic-Masic

September 2007:

Evaluation instruments (questionnaires) will be developed in cooperation with Dr. Huwendiek to perform the evaluation studies.

October 2007:

Start with the pilot project on the pediatric department:

Introduction session: background and how to handle the CAMPUS system (30-40 students, 45 minutes). To clarify the concept and handling, one CAMPUS case will be presented.

November 2007:

During November we plan to introduce the first case, „Infant with fever“.

It will be presented in the “Introduction to Pediatrics.

Scenario:

Students will be divided into four groups (ten students per group). Each session will last for approx. two hours and will be supported by a tutor. First students will work through the case in pairs, followed by a feedback round (“flashlight”) than do self-study with a specific homework (e.g. differential diagnostic approach in a patient with such a leading symptom) and discuss it in the next session one week later.

End of February 2007:

In that time students will have teaching on hematology.

A new case will be developed for that issue.

Scenario:

We will use the same scenario like in the first case or slightly modified according to the experience we got during analysis of the first case.

March or April 2007:

These two cases will be introduced to students after finishing of the Pediatric Nephrology theoretical teachings:

1. Schoolchild with brown urine and bad general condition (PSGN)
2. Toddler with edema (Idiopathic nephrotic syndrome).

Scenario:

Students will be divided into four groups (ten students per group). Students will come prepared to the sessions and after working through the case in pairs supported by a tutor they will have a discussion about the case directly at the end of the session facilitated by a tutor.

May 2007

After students finished lectures from „Nervous system-neuro-muscular diseases and diseases of skeletal system“- they will get the following case:

“Toddler with limping” (Coxitis fugax).

Scenario:

Students will work through the case and after the establishment of the differential diagnosis, they will state learning goals and will go home to study about the differential diagnosis and the following steps. One week later they will continue the work through the case till the end and after that will discuss about it facilitated by a tutor.

After each scenario students will be asked to give feedback (“flashlight”) to this approach and to fill in the questionnaires.

We would like to thank Dr. Huwendiek, Mr. Bauch, Ms. R. Passenheim and Prof. H.G. Sonntag for the perfect organization of this workshop and providing us with such a powerful tool and teaching method.

Srdjan Lozo Internal Medicine
Dejan Bokonjic Pediatrics
Srdjan Masic Technical support
Bozo Petrov Technical support