

Developing of contents and implementation of E-learning experiment in Informatics in Schools in Bosnia and Herzegovina

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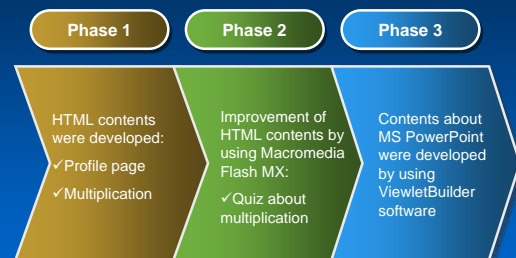
Objectives

- The objectives of this presentation is to report about:
 - developed e-learning contents,
 - their implementation in a school of B&H,
 - the potentiality of *ViewletBuilder* and *Moodle* management system which are utilized for contents development and publishing.

Background and purposes

- My work is based on:
 - the contents about MS Word and MS Excel developed in the last year program
 - reform processes ongoing in B&H and the curriculum changes
 - ECDL certification which is increasingly in demand in B&H as standard for education and evaluation of computer's skills
- That is why I selected two topics: *Microsoft PowerPoint* and *Microsoft Access*.

Progress Diagram



Details of phase 1

- HTML contents were developed
 - [Profile page](#)
 - [Multiplication](#)
- Materials developed in this way are very limited:
 - Static pages
 - No interactivity
 - Looks like a textbook



Details of phase 2

- HTML contents were improved by using Macromedia Flash MX 2004.
- Reasons because I used Micromedia Flash MX are that it can make a web site more:
 - attractive,
 - interactive, and
 - dynamic.
- The fact is that Flash is a flexible software package that can be programmed by ActionScript to run:
 - comprehensive applications
 - games,
 - quizzes,
 - and online multimedia movies.
- [Interactive quiz for multiplication](#)

Details of phase 3

- The contents developed are on the use of software *Microsoft PowerPoint*.
- They consist of twenty six topics divided into ten lessons.
- Each lesson has three types of contents:
 - *Static lesson organized like textbook*
 - *Demonstrative lessons*
 - *Interactive lessons*
- In developing contents we used the software *ViewletBuilder*
- Developed contents were published through *Moodle* management system

Developed contents

- *Demonstrative lessons* show dynamically what is described in static lesson with some tips.
- They are designed for absolute computer beginners and describe step-by-step for work in PowerPoint.
- Interactive lesson consists of simple tasks which ask students to click on the proper place so that the tasks could be accomplished. Depending on student's action, feedback will be given.



Potentiality of ViewletBuilder

- ViewletBuilder is a main tool to create compelling, animated online presentations, demonstrations and software tutorials.
- This choice is due to its easiness to create and visually compile animated Flash demos which are appropriate for online software training.

LMS - Moodle

- *Moodle* is a learning management system (LMS) – a free, Open Source software package designed to help educators create effective online learning communities.
- It is the most popular LMS on the web nowadays and it has a large and diverse user community with 12,165 registered sites in 155 countries with 4,021,531 users in 376,565 courses (as of May 30, 2006)
- Using Moodle learning management system gives us a good feedback of how each student accesses the contents.

Moodle benefits

- Each user requires only one account for the whole server.



- Each account can have different accesses such as Student, Teacher with or without Editing Permissions, Course Creator and Administrator.
- Students can access a Moodle course using almost any browser, including Internet Explorer, Mozilla, Firefox, and Safari.

Moodle benefits

- *Moodle* has a simple, efficient, low-tech browser interface and it is suitable for online classes as well as supplementing face-to-face learning.
- Its advantages includes:
 - *self-pacing* and gives students a chance to speed up or slow down as necessary
 - *interactivity* engages users, pushing them rather than pulling them through training
 - *automated test* questions can provides instant feedback to the both students and teachers.

Implementation

- Moodle was used to conduct experiments with Bosnia and Herzegovina's students.
- We have organized experiments for the objective to implement developed contents in high school of B&H.
- The particularity of these experiments is that the contents developed in Japan are used in the class of B&H with collaboration of B&H's teachers.
- The schools in which experiments were conducted are Electrotechnical High School in

Conclusion

- The combination of *ViewletBuilder* and *Moodle* allows us to develop e-learning contents which are more self-pacing for students and have more interactivity.
- With our contents, we hope to bring a modern and refreshing approach to informatics teaching for B&H's students.
- We believe that the approach combined with traditional one can improve students' interest and knowledge in informatics.

Thank you for your attention!!!

Thanks to JICA and CRICED!!!