FOCUS ON ELEMENTARY INTERACTIVE ANGLE CONTENTS

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OBJECTIVE

- The objective of this presentation is to summarize:

  ➢ developed contents based on advantage of learning with ICT

  ➢ potentiality of Macromedia Flash MX used for the development
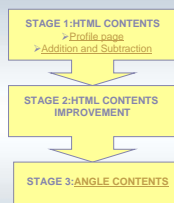
  ➢ utilization of these contents

INTRODUCTION

- E-learning is a learning method based on digital means, information, radio or broadcasting technology.
- E-learning environment should provide content that allows learners not only to surf the information with their eyes, but to pursue assessment and communication learning activities with their minds.
- Students should be able to browse and search learning materials, make learning inquiries and assess their own learning environment.

GOAL

- The crucial mission of educational development in B&H is to involve and apply modern ICT at all levels of educational system so as to make it comparative and compatible with European's and World's standards.

- The current problem is the lack of qualified teachers, developed contents, and classroom equipment.

PROGRESS STAGES

STAGE 1:HTML CONTENTS
➢Profile page
➢Addition and Subtraction

STAGE 2:HTML CONTENTS IMPROVEMENT

STAGE 3:ANGLE CONTENTS

ANGLES: WHY

- Reasons for choosing the topic of Angles in my individual project are:

  ➢ The concept of angles is everywhere in today's world.
  ➢ Angular measurement is the most important tool in all applied sciences.
  ➢ It is the fundamental measurement in studying celestial bodies and their configurations, geography, navigation, topography, optics, civic and mechanical engineering.
  ➢ Students have difficulties in applying the definition of an angle to its examples.

MACROMEDIA FLASH MX

- In developing animated lessons and interactive exercises, I used Macromedia Flash MX
- The reasons for choosing this program are:
  - It offers a combination of drawing and programming tools
  - It provides a potential in creating rich media for www
- Developed contents are published on "*Matematika ONLINE*" website

  http://elearningbih.criced.tsukuba.ac.jp

CONTENTS STRUCTURE

- Contents are developed in the form of:
  - Lessons
  - Exercises
  - Quizzes
  - Games.
- ✓ Exercises are given with clear instructions for students.
- ✓ Students are given encouraging comments upon successful completion of exercises.
- ✓ Students can access exercises from home or school.
- ✓ Exercises can be made in printable form

EXPERIMENT

- Teaching experiment was carried out in June 2006 with 13 fifth grade pupils at *"Nafija Sarajlić"* elementary school in Sarajevo.
- The main objective of the experiment was to check how pupils would accept new methods of learning mathematics.
- The idea of the lesson was for students to access and complete 5 examples of easier level questions followed by 5 examples of harder level questions of *"Interactive Protractor"* followed by the *"Quiz"*.

CHOSEN ACTIVITIES

- **Interactive protractor**

  1. *Identifying adequate protractor scale for a given angle*
  2. *Reading angle measure on the protractor*
  3. *Identifying the type of measured angle.*

- **Quiz**

  1. *Answering multiple questions*
  2. *Calculating measure of an angle*

OBSERVATIONS OF EXPERIMENT

- Students were enthusiastic throughout the lesson.
- They were delighted with the interactive game/exercise *"Interactive Protractor"*.
- They eagerly inquired how to access the same contents done at home.
- The teacher concluded that these kinds of contents properly combined with traditional methods of teaching and student learning could improve:
- Students interest in mathematics
- Students understanding of different mathematical concepts.

CONCLUSION

- E-learning is not simply an ICT-based teaching-learning method
- Adapting ICT into education not only includes school education but it should also be applied to lifelong education
- It is necessary to move it to the next level and create an environment supported by government, teachers and students.

THANK YOU !

DŌMO ARIGATŌ GOZAIMASU !