

Global Chinese Conference on Computers in Education (GCCCE) 2010

Tutorial Proposal

1. Tutorial title:

"Digital scientist" courses and workshops on teaching mode "DataWebquest"

2. Presenter name(s) & contact information (email, telephone).

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3. Tutorial format: Hands-on and seminar (4 hours)

4. A brief tutorial outline for website publication (About 200 words)

One year ago, we designed the "digital Scientists" course in Beijing Jingshan School. We use a variety of different software to help students solve mathematical and physical problems. In order to improve students' comprehensive use of various software and information literacy, we designed with data as the core courses of information technology-digital scientists which plan to data analysis methods as the core of the teaching content with the integration of application software. These methods are simple to use, students used them with their own computers at home. In addition, we also adopted the Working Modeling 2D software, through which software to help students to analyze physical concepts. Besides physics, we believe that the ability of data analysis should be applied to chemistry, biology, economics, mathematics and other related areas. If the student in mastering the data analysis methods, they can be transformed into the problem to be studied, "the researchers valid data," and finally through the data acquisition, storage, analysis, and express its "Data Appreciation." Our teaching model based on the WebQuest, using Word instead of web pages, emphasis on data analysis. This teaching model is called DataWebQuest. The course can be in the computer classrooms, you can also use the portable computer (<http://www.515best.com/>), in the absence of the computer classrooms complete the teaching tasks. To participate in the workshop will receive 32 hours of Teaching Design, and get valuable practical experience to share. Outline: (1) "Data Appreciation" concepts and teaching strategies. (2) DataWebQuest the teaching mode. (3) "Digital Scientist" as elective courses in information technology (4) "Digital Scientist" embedded into the secondary school physics course.

5. Intended audience: Schools teachers, master or Ph.D. students, and/or Researchers. (Maximum number of participants: 40).

6. Prerequisites: No.

7. Attendee Requirements: We will work in a computer-lab. Handouts will be provided. No need to bring anything.

8. Presentation language: (English is the language, but the presenters are also fluent in Chinese)

9. Presenter Requirements: Yes, a computer-lab with permission to install some free software tools. Standard equipment 1024x768 projector is needed; we will bring our own laptop for presentation purpose.

10. Presenter bio(s) (one paragraph, about 200 words).

The presenter, Mr. JunJie Wu, Beijing Jingshan School physics teacher, master of Beijing Normal University, major research direction is physics curriculum and teaching theory, robot education. He designed and implemented the creation of intelligent robots courses, Geometer's Sketchpad courses and artificial intelligence courses. Main Papers: 1." Digital Scientists Plan - A Robot Curriculum with Integrated Science and Socialized Practice"(GCCCE2009), 2."Digital Scientists Plan: Approach for Information Literacy and Innovation Ability-Data as the Core Courses of Information Technology Teaching" (2009 Game-based Learning conference in the chinese university of Hongkong), 3. Inventions "using VB-controlled teaching system, sensors and the implementing agencies - VB robots," endorsed by the National Science and Technology Invention Contest first prize of teachers group 2007.