

Empowering Student Teachers to Communicate Ideas Using IT 1999

**Maktab Perguruan Batu Lintang
Devadason Robert Peter**

Abstract

One of the most powerful forms of learning occur when students are empowered to create and present information about a subject in a meaningful way. Project based learning follows this principle. The inclusion of multiple elements like audio and video in such project-based learning is not new. However putting them all together in one media like in a CD-ROM creates new opportunities. Together with interactivity, hypermedia and the immediate feedback this technology offers, it has the potential for enabling students to be very engaged when carrying out their project work. In keeping with the theme of the conference, this paper describes the 'access to communication facilities' aspect of a project in progress by the author together with an instructor of the Social Studies Department. Among others, this paper describes some of the important elements that determine how far students can be empowered to create their final product for their Social Studies Project in the form of interactive multimedia CD-ROM.

Tujuan:

Describe the 'access to communication facilities' aspect of a project in progress by the author together with an instructor of the Social Studies Department.

Soalan:

What are some of the important elements that determine how far students can be empowered to create their final product for their Social Studies Project in the form of interactive multimedia CD-ROM?

Metodologi (Sampel):

About 16 Semester Two Diploma students and their Local Studies instructor.

Metodologi (Instrumen & Pentadbiran Kajian):

1. Interview
2. Participatory observation

Dapatan Kajian:

1. 1. Multimedia/hypermedia production is a mammoth job of which the content is just one large part of the job. The task of putting content into a CD itself may prove to be more than a challenge to many students. However, as far as creating knowledge in hypermedia is concerned, everything apart from the hypermedia knowledge base is unimportant. After all, we are concerned with students constructing knowledge in multimedia, not designing multimedia CD-ROM. But yet without the other cosmetics like the cover, the animations and special effects, a CD-ROM loses its value except to the evaluator. Perhaps cosmetics could form part of another group's project. Perhaps, the group continues with the cosmetics as part of another project under IT. However, the amount of time taken in 'putting content into CD' affords some kind of collaborative partnership between the subject and IT.
2. 2. Analysis of the long hours of 'time on task' suggests that a significant portion of students' work is in gaining skills using the multimedia tools. Somehow students are very motivated and engaged in doing tasks like scanning images and recording audio. It is also during these times that they encounter technical difficulties which if they cannot solve by themselves and if no competent person were around, they would end up wasting that few hours of access. Students thus were basically very independent except during the times when they encountered technical difficulties. For example, a student working with sound editing software found that his sound clip was too soft and needed a utility to amplify the sound. A facilitator had to be there at the right time. Thus there was a need for someone very familiar with the software and hardware to give the short but vital help during the course of the production. For the purpose of this experiment, the author allowed himself to be contacted anytime throughout the day or night by telephone. To cater for situations like these, one strategy is to distribute expertise among the instructors and students; that is, there is a pool of instructors and students competent in the various skills of multimedia production.
3. 3. We also realized that as students got better at what they were doing, they helped out the slower ones. It helped reduce many of our help sessions. We found that the successive groups needed less and less help from the author.
4. 4. This project promoted a level of motivation in a quantity that is not easy to find in the college. Students were so motivated in their projects that they kept on pestering their subject matter facilitator to allow them to use the labs till late into the night. Perhaps this is what Perkins (1992) meant by 'energetic', which is one of the characteristics of a Smart School. The author had to on more than one occasion, ask the teams to stop work and prepare for their written examination. Whether the students did multimedia or did 'Local Studies' or both is an interesting study to be done in subsequent research.
5. 5. This experience also showed us that if we want to enable students to use technology as student tools for construction and creativity some drastic changes have to be made on computer room usage policy. If not, we will be stuck at using IT infrastructure at a capacity that is inferior to what it is capable of.

Cadangan:

1. 1. More liberal access policy to IT facilities. This will raise questions of security and cost.

2. 2. We described the case for students as hypermedia creators or composers (Hay, 1994). Yet some way will have to be arranged for the bells and whistles to be included in a hypermedia product.
3. 3. Some form of methods should be developed that enables most work to be done on ordinary computers (if possible, enough to fit into a diskette). All the space hungry media elements are only assembled during the final stages (perhaps in the multimedia room).