The Challenge of a Primer Educator in Project-Based Learning Model

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Abstract: - The team teachers give the learners a challenge of inquiring project-based learning. In the problem-solving process, learners have to know clearly what the problem they face and which mission they have to conquer. Besides approach these steps, learners also browse many web sites to gather information from variety of sources and synthesize, and analyze, and derive knowledge from it. Teachers have the responsibility to offer another education unheard of in traditional classrooms. Learners who take part in project-based learning have more positive attitude and comfort and enjoyment when working numerous hours with peer.

Key-Words: - Project-Based Learning, Learning Attitude, Problem-Solving

1 The Definition of PBL

Project-Based Learning (PBL) means learning through experiences. In PBL, students work in groups to solve challenging problems. Which challenging problems are authentic, curriculum-based, and often interdisciplinary[3,4,5]. When team teachers decide which specific project, learners meet in groups to plan and create web sites and digital media presentations. They collaboratively gather information from variety of sources and synthesize, analyze, and derive knowledge from valuable inquiry.

2 How to Pick a Project

Joining or adapting someone else’s project is a good way for educators to get their inspiration of PBL project. WebQuest is good example of popular PBL projects. It is a easier to get started for many educators begin to design PBL project. There are many digital media presented in the web-site. It provides good models for both educators and learners. Learners can demonstrate their newly knowledge and skills such as collaboration and communication[6,7]..

3 The Elements of a Good PBL Project

- PBL projects should be based on standards which have very clear learning goals and contents.
- Learners have to design the project and organize the presenting results.
- Learners should work collaboratively, such as team research, group communication, and decision making, and provide honest feedback to each other.
- The project should be connecting the real-life. The focusing topic or issue that effect the learners’ and someone else’s lives[4,6]. For example, pollution problems need realistic methods to solve problems.
- Project should be work in a nontraditional approach. Project is a task which need time to experience from the trial and error. It is a way for depth knowledge study.
- A good project should include formative and summative assessments. It evaluates learners what they learn and how well they can conquer the challenge. The evaluations is a ongoing demonstration that peer reviews,
teacher evaluations, self-reflection, and group feedback.

4 The Role of Technology
PBL gets work through web-based learning. Technology enables PBL. E-mail, forum, and other online applications facilitate communication and collaborative work with the world outside the traditional classroom. Learners scaffold the world through the variety of web world. The web world provides a access to museums, libraries, and remote locations for research. Learners work together to accomplish a real-life task or improve global issue understanding. All the virtual world concerns about is the issues what learners can focus. All work can be presented on the web for review by real audiences all over the world, not just a teacher, a class, or a school[7,8,9]. PBL is published to the form of large number of digital data. Technology also plays a great role on assessment and evaluation. Students in schools compile their work electronically for the ongoing portfolio of team creation. New technology offer excellent potential for adding value to classroom teaching in a large variety of ways. [1]

5 The Role of the Educators
To know how the project means and to be familiar with the global hot topics, then to design the project, is very important for a educator in PBL project. When students start to work with the team, the educators should be stand by and provide the learners valuable suggestion or direction. The role of the educator is a adviser who offers sources of information, then the learners can acquire knowledge and reflection from the project.

6 The Difficulty of Promote PBL
6.1 Classroom Conditions
Requirement of PBL is a key role in classroom. A well-requirement can be a good tool for learners to get information. During the process of the project, giving a risk-free environment which students can use various styles to learn is key to success. Web sites also is a good way for educators to check out sample projects in the curriculum[9]. Besides, web sites can provide example of the kind of learning experiences.

6.2 Assessment
Assessment is an important part of PBL. According to Michael Simkins, who directed the Challenge 2000 Multimedia Project, “Teachers should build in both formative and summative assessment. That is, they need to collect and act on information that will help students improve as they proceed, and they need to have measures that show what students learn overall.” Written work, report assignment, presentations, informal discussions and questions, observations, and the final media product should be the list of the evaluation. Certainly, all people include teachers, students, community members also give honest feedback to the project.

6.3 Rubrics and Feedback
Rubrics of PBL project make the quality difference. Rubrics is a standard for students to know exactly what is expected and what is the goal should be met. Therefore, rubrics look critically at the quality of the project, and should be marked for clarity, accuracy, and honesty in reporting to the interested critical audience. [7,8,9]

6.4 Interaction Between Students and Teachers
A study shows that “to preserve the traditional classroom environment may well be a reaction to that.” [1]Some learners who lack of confidence strongly need teachers to scaffold the learning. With working long hours for the project, reaction between students and teachers is considered as a tough job to conquer. Certain learners will lose their interest for learning then drop out the project.

7 Features of World Wide Web
World Wide Web originated from U.S.A. in 1980. It connects different websites to form a global channel for information conveying and offer information service. The services are e-mail, file request, remote access and e-bulletin board [9]. Hypermedia is one of the features of www. It derived from Hypertext and is a non-sequential data management. It saves the data in the nodes of web and connects them by linking. The different types of nodes and links can form diversiform information construction, and display the intended subjects [6].
8 Conclusion
The significant finding project-based learning have overwhelmingly advantages and disadvantages[1]. Even most learners hold positive responses toward the web-based learning, both students and teachers met various of difficulties that make them feel frustrated. But the attitude to face the task is the key to fulfillment. To accomplish the goal, teachers and students are also asked to get more information literacy and the ability of organization. To be familiar with the web-learning is essential. For this reason, students have to discuss with peer to communicate variety of information from web sites. Maybe the project work for several hours, weeks or months, giving a significant support is virtually encouragement for all. And through the activities, students also can examine how their metaconition of deep knowledge. These finding can give students a support the view that the learning experience enjoyable may have the salutary outcomes. E-learning has been developing in recent years. There are many academic organizations using internet as a learning bridge among students to enable them to make use of online resources and to connect the world. Multimedia and interactive e-learning are used to narrow the gap among students, to promote international cooperation, and to implement international exchange.

   In recent years, the booming development of not only represents that personalization mobile devices are gradually popular, and means that the times of internet combination has already arrived, becoming gradually an indispensable part of consumers’ life. The application service of the communication network of the E-learning of science & technology are portable, movable, personal-based and so on. Along with the development of 3G, the individual product of the E-learning of science & technology is of progress, and the structure and technology of communication is of promotion, even expands to the entire information industry possibly.

   Currently, the E-learning of science & technology have gradually formed in corporate world, the market growth can be expected. The international information big factories put into one after another and try in this market to contend a place through every kind of strategic alliance. It is believed in the extremely short future, and we might see that the E-learning of science & technology has applied during our daily life. In order to respond the need of times, education cannot fall after the tendency, and should teach students the new science & technology information to be able to adapt the future social life.

   The essential factors for introducing the meaning of the E-learning of science & technology into national education include the popularization of mobile phone, which implies high market potential in mobile phone user groups. The users’ satisfaction level in bandwidth, stability, coverage and safety is gradually rising, but the most important thing is the quality and efficiency of life can be significantly improved through applying e-learning technology in education. E-learning technology development is a key for a nation to increase or keep competition ability. The E-learning of science & technology can help people to resolve many bothersome issues, such as inconvenience in communication and so on, reduce time and economic cost, and also improve life quality.

   To summarize all above, this paper discussed the applications of strategies of the E-learning of science & technology integrated education, the potential issues and the possible solutions. Based on the theoretical analysis and the experience in practical teaching, we can integrate the meaning of the E-Learning of science & technology integration in science and technology curriculums of primary school through the combination of theory and practice. This is also able to be a reference of administration and teachers for the contents in new generation education.

   Due to the liberalization of global economy, all trades and professions emphasize on the promotion of comprehension in order to expand their international markets, and to keep themselves in the same pace with global economic development. To improve the competitiveness of the country, the government has proposed that enhancing students’ comprehension as an important policy. The Education suggests the perspective of ‘Creative Taiwan, connecting globally’, in which ‘fostering talents with foreign language abilities’ is one of the action plans. Digital teaching materials produced with multimedia films and pictures provide various and more active content of courses. Therefore, using multimedia digital teaching material on international interactive teaching is a necessary way of learning in this digital era.

References:


