Project Based Learning

Science Across the World

School Track

Project-based learning (PBL) via the integration of technology in science teaching is one of the contextual learning approaches that has gained much popularity and increased attention in the recent years. Project-based activities become the precursor for the advancement of Science and Technology Education (STE) in developing countries. Research findings indicate that the use of technology allows students to present their projects in an interesting and comprehensive manner. Science projects are usually triggered from simple questions or problems in various contexts. With a close guidance by the mentors, students' project work could provide the motivating and effective contexts for the acquisition of research skills, scientific understanding, problem solving and critical/creative thinking skills. Technology, in a variety of sophisticated forms, in turn challenges the student to create many tasks in line with each individual's knowledge and proficiency. The easy access to numerous sources of information from the virtual library allows breadth in the projects concerned, besides offering many possibilities for innovative designs.

The availability of the Internet and the global advanced networking has enabled sophisticated e-learning systems to flourish at a tremendously fast pace. People can access multiple sources of information in cyberspace from the many e-learning platforms, which have mushroomed over the past few decades. "Science Across the World" (henceforth being referred to as SAW) is an exemplary international web-based programme, which promotes project-based learning; initiated in 1990 by the Association for Science Education (ASE) of the United Kingdom (UK) under the sponsorship of British Petroleum (BP). Since the year 2000, the SAW programme was developed and managed by the ASE in partnership with GlaxoSmithKline (GSK), one of the world's leading pharmaceutical and healthcare companies committed to improving the quality of human life. SAW invites the participation of teachers and students all over the world. Together with ASE and others, GSK aims to stimulate interest and confidence in science among young people, as well as to promote awareness and discussion of scientific issues that affect mankind around the world (SAW, 2000). Being an international flagship programme, SAW is a global alliance for five regional initiatives i.e. Science Across Africa, Science Across America, Science Across Asia Pacific, Science Across Europe and Science Across Latin America. A regional coordinator is appointed to coordinate the project in each region. RECSAM is privileged to be entrusted to coordinate this project in the Asia Pacific region since 1991. "Science Across Asia Pacific" (SAAP) was initiated in 1991 in consultation with ASE and funded by BP Malaysia, the company currently named Boustead Petroleum Marketing Sdn.Bhd.

Project School

The SAW international programme aims to introduce into science education an increased awareness of the different perspectives, ways of life and national traditions of students in various countries. It raises the awareness of the ways in which science and technology interact with society, industry and the environment. The programme with its suggested topics can be viewed and downloaded from the official website *http://www.scienceacross.org*. SAW also provides the opportunity for schoolteachers and students in different countries to develop communication skills among themselves; collaborating over a range of exciting and important three main processes of learning, i.e. (a) Individual student's exploratory work where the student carries out investigations to explore science locally; (b) Compilation of the individual student's or group's findings into one class opinion; and (c) Exchanging the class opinion, information and experiences with students and/or classes from all over the world. In other words, students will share insights globally. The development of the project curriculum is in tandem with current trends in science and technology education while the implementation of the activities are based on two approaches to learning, namely (1) Contextual learning incorporating value-based Science, Technology, Environment, Society (STES) and

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