

Seven Tips for Successful Project-based Learning (PBL)

Project-based learning (PBL) is a teaching method in which students gain knowledge and skills by engaging in a cumulative activity for a continued period of time to investigate and solve problems, leading to a final practical outcome (Cook & Weaving, 2013; BIE, 2014). PBL provides learning opportunity and goals for integrating content-knowledge and skills, including critical thinking, problem solving, collaboration and self-management (Larmer & Mergendoller, 2011). Below are seven tips for engaging students in PBL.

Teachers can arouse students' interest in learning by launching a project with an "entry event". An entry event can be a video, a seminar, a lively discussion, a field trip or a piece of correspondence that forms a scenario. Such forms inspire students to find out why they need to acquire the learning content and practice skills; they will then perceive the task as personally meaningful that they want to do it well. An entry event enhances students' motivation and initiates questioning (Larmer & Mergendoller, 2010).

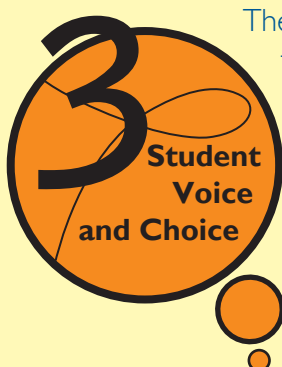


A driving question should lie in the heart of the project. A good driving question gives students a sense of purpose and challenge (Larmer & Mergendoller, 2011).

The driving question could be an abstract question (e.g. What is work ethics?) or a concrete question (e.g. How can we avoid the collapse of a green rooftop?) that ties the learning outcomes to an open-ended question. This question has to be set at the right level, challenging students' minds but not

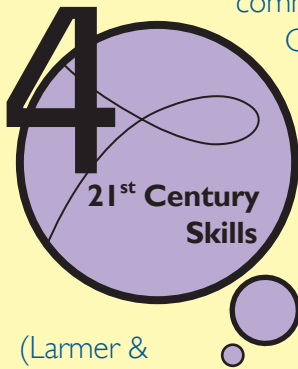


intimidating them (Larmer, Mergendoller & Boss, 2015).



The more student voice and choice in the project, the higher educational engagement from the students. Having a say in a project creates a sense of ownership in students (Larmer, Mergendoller & Boss, 2015). Students feel more committed to the project and are willing to work harder when they have a sense of ownership. Teachers can provide a menu of options for students to solve the problems or create products. Students can exercise their judgement in choosing a project's topic, writing a driving question, dividing their work with team members and employing resources to work out feasible solutions for the problems, by creating innovative solutions or products (Larmer & Mergendoller, 2010).

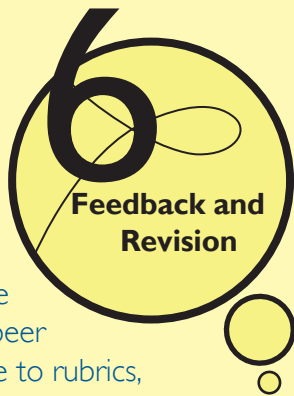
PBL equips students with problem-solving skills, critical thinking skills and collaboration skills, commonly known as “21st



Century Skills”. Thinking through the driving question, students need to apply higher-order thinking skills in analysing the situation, proposing solutions and expressing themselves in written or spoken forms (Larmer & Mergendoller, 2011).

Working in a team, they have to find ways to communicate and collaborate well with teammates. Teachers can provide guidelines or rubrics to help students review their progress. Teachers can also encourage students to use time and task organisers to state actions to be taken and/or write journals to reflect on their thinking and problem-solving processes. Such records help to chart the progress of the project, enabling students to explain the project design and implementation to the public audience (Larmer & Mergendoller, 2010).

High quality work can be attained through continuous feedback and revision. In addition to direct feedback, teachers can train students to receive and offer constructive peer feedback with reference to rubrics, exemplars or critique protocols. Trade experts or mentors can be invited to provide critique and comments on the project work, from an authentic, real-world point of view (Larmer, Mergendoller & Boss, 2015). Constant revision can then be made to refine the idea or product.



In short, this article details seven tips for sparking students’ interest in PBL, an instructional strategy that enables students to achieve key competence in Vocational and Professional Education and Training (VPET) in the 21st century. Given the directions of project design and implementation, PBL paves the way for students to gain success in the workplace.

Based on the driving question, students ask questions, locate resources, discover answers and ask deeper questions. This process repeats itself until a satisfactory answer comes into sight (Larmer, Mergendoller & Boss, 2015). The idea will then be tested before arriving at a conclusion. The active and in-depth process of inquiry marks the birth of a new answer to the driving question, a new product, or an innovative solution to a problem. In guiding students in real inquiry, teachers can coach them to append questions to the question lists they produce. Questioning, hypothesising and openness should be the prevailing values of the classroom culture in welcoming new ideas and perspectives (Larmer & Mergendoller, 2010).



A product can be a tangible object as well as an exposition of the driving question. Presenting an idea or product publicly raises students’ motivation in refining the quality of project. When students have to present or display their work to a range of audience, they tend to strive for better performance (Larmer, Mergendoller & Boss, 2015). The audience may include peers, parents, community members or industry partners. Students introduce the projects to visitors, answer questions and reflect upon their learning before deciding what action comes next (Larmer & Mergendoller, 2010).



References:

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