

## Project-based learning: Teaching them to create and produce

Timothy C. Clapper, PhD

It is not uncommon today to find people or institutions valuing knowledge for knowledge's sake, without the thought of meaningful application. Likewise, it is no surprise to learn that strong vocabularies are valued by many institutions of higher learning and this intellectual variable comprises a large portion of the standardized test that ensures that those who possess that particular intelligence stand a greater likelihood of attendance at one of the prestigious universities. While a strong vocabulary and a sheepskin from a prestigious university may influence one's ability to land a top-notch position in society, it is no guarantee that the person will be able to create and perform; two words that often truly measure real intelligence. While we all might agree on the importance of the 3 R's and the need to be functionally literate, what is desperately needed in our society are those that can conduct research, think outside the box, and create. Unfortunately, teacher-centered practices, including an over reliance on direct instruction may discourage such activity. Project-based learning has been written and spoken about for years now, but teachers may still be avoiding this important tool,



partly because of time constraints. For that reason, this article offers suggestions for incorporating project-based learning in manageable ways. For the purpose of this article, the term 'manageable' is keeping the project simple and brief, with learners staying focused on the objectives of the lesson. If used in that fashion, teachers may be less reluctant to incorporate project-based learning in their lessons.

One of the easiest forms of project-based learning that may be

included is also a cooperative learning technique referred to as group investigation. Group investigation develops many skills, including research, collaboration, and critical thinking skills. These are areas that can help us to reach the goals of teaching the learner to create and produce.

Begin by assessing the lesson objectives to determine the direction of the lesson and the end result that is desired. Analyze the course material and look for the big ideas or important concepts that will help learners to really understand the lesson and ones that they really need to know for future success. Once the important concepts have been determined, decide how the learners will research these areas. This process can be as simple as assigning sections of a textbook chapter and/or specific websites that contain important information related to the concept. Once the resources have been identified, the next task is deciding how groups will be formed and what their responsibilities will include.

Dividing the class into groups of 3-6 learners is ideal. The actual number and size of groups will depend upon the material to be addressed. Three or more learners allows for better collaboration and more ideas, while groups that are too large will often result in some learners not being actively involved. Also, whether by the situational group leader or by the teacher, larger groups tend to be more difficult to keep on task. In

addition, limited roles, responsibilities, and resources can cause some students to disengage and this can lead to off-task behavior in the classroom.

When assigning groups the lesson concepts, the teacher will provide them with some useful guidance and parameters. For example, tell them that they are to read the sections of the chapters that are assigned to them prior to beginning any work. Tell them that they are responsible for extracting what is important from that lesson and presenting it to the class in ways that are more understandable. Provide the learner with resources they can use that are available. Depending on the classroom, these resources may vary and can include: poster paper, markers, electronic tablets and whiteboards or multiple eraser boards. It is also important to let them know how much time they have to complete their task and how they will be evaluated. It is important to share with the class that presenting the material in meaningful ways is more important than presenting the material in pretty ways. Time is of the essence and while one can develop eye-appealing presentations, the importance is on helping others (and themselves) to organize and make meaning of the information. The learners might use a graphic organizer, such as a Thinking Map®, to convey the information to others. In addition, learners need to make the information their own and having the learners come up with an example of how the information might be useful to them or why it is important can allow for this to occur. Perhaps later on while completing an examination, that particular example may trigger the recall needed for the learner to be successful on that section of the exam.



It can be fun to watch the learners construct their knowledge using this form of project-based learning. The learners read and research their topic, discuss and try to make sense of the information, and organize the information in meaningful ways on the poster board or other display to be able to brief their information to others in the classroom. But watching may not be the right term to use for this process because the teacher-turned- facilitator is

constantly rotating through each of the groups to ensure that learners are on task and moving toward the objectives. Providing the learners with a simple project participation rubric can help with this area. The rubric tells learners how well they should be doing, including how well they organize the information, actively participate in the process, and present the information to the class.

While the project, in this case preparing a presentation, allows for the groups to internalize the information and create something that they have to brief, presenting the project to the class enables the learners to solidify the information by taking advantage of reciprocal forms of teaching. One argument that has been heard from educators using this technique is that learners tend to learn their project well but may not grasp the information conveyed by other groups. There are ways to alleviate this situation ahead of time. First, require that learners are taking notes while the each group presents. Also, following each presentation, conduct a reflection and solicit audience participation and input concerning what the information means to them. Additionally, from experience, I have learned that brief topic sheets can be prepared ahead of time for each area that the learners will read just prior to the group presenting on that particular topic. In this way, the learners build a basic understanding for themselves while others (the group presenting) follow with useful information that assists them with processing the information. Vygotsky (1978) suggested that learners could learn much more this way because adults and peers take them to levels they might not reach if left on their own.

Long ago, my great-great Uncle, Horace Mann recognized that the purpose of education was to prepare learners for their future and their world. Project-based learner allows for



the learners to use multiple intelligences to create and produce using the lesson content. Gardner and Hatch (1989) have an interesting view where they suggest that intelligence is the capacity to solve problems or to fashion products that are valued in one or more cultural setting. For those of us that subscribe to that view of intelligence, we might find that project based learning can not only help us teach the content, but also nurture the

process of creating and producing; something that we need to inspire in our learners if our society is to flourish.

Gardner, H., & Hatch, T. (1989). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher*, 18(8), 4-9.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Timothy Clapper is an Educational Consultant with TC Curriculum & Instructional Design, LLC and the Director of Education for a major medical simulation center in New York City. He has taught thousands of teachers, high school students in both affluent and disadvantaged areas, and medical clinicians, using active learning strategies.

<http://tccid.dover.net/>

Email: TCCID@Dover dot Net or SFCCBTVET@Hotmail dot Com