Project based learning: Developing 21st Century collaborative and technology skills

Igballe Miftari a,*
*Miftari Igballe, Tetova 1200, Macedonia

Abstract

Project based learning (PBL) represents a “hand on projects” type of learning and emphasizes learning activities that are long-termed, interdisciplinary and student-centered. Teachers, especially modern teachers, that want to engage students in these kinds of activities, must find ways to enhance student creativity, provoke students’ interest, critical thinking and also managing skills. The most important feature that represents PBL is collaborative group-work where students are asked to work together, share ideas, organize and manage the time period (deadline) for completion of the task (project). Students’ are also required to take responsibilities, answer questions and provide feedback, becoming in this way, independent learners. Due to the fact that PBL is a relatively new “technology based activity” which has been recently presented and used on the Balkans, my paper will present PBL and how it is used, the role of the teacher and the roles of the learners, tasks that may be designed etc. All this will be based on my own experience during the 10-week online course entitled “Developing EFL literacy through PBL” with The Oregon University. Research questions are: “What are the skills that are improved during PBL?” “How can a PBL task be managed and designed to work effectively” and “What are the stated criteria?” This part will be answered according to further elaboration of my experience, what we designed, and most importantly, how a group of different nationalities, cultures and countries succeeded and survived in the project. Research hypothesis are as follows: “PBL is an effective way of cultivating 21st century technology skills” and “Team work is a positive stimulating factor during PBL.” Cultural diversity, clashes and differences, participants’ level of English proficiency, personal interests etc. will also be examined. Furthermore, the outcomes of the project (the designed website), advantages and disadvantages with concluding remarks will also be an issue. The aim of this article is not only to present PBL, but rather to promote further examination and usage of a modern approach, a project-based approach that will change the view of learning a foreign language and the negative impression of technology based activities in general.

Keywords: Technology, collaborative skills, project-based learning, interdisciplinary activities;

1. Introduction

1.1. An introduction to the modern world

It may seem as only yesterday when changes began to take place. Technology emerged everywhere. The use of the internet and computers became an everyday use, and life without the use of technology became impossible. Welcome to the modern world, a world where communication has become faster than ever, and where the use of machines has changed everything, even everyday language and expressions, and of course everyday teaching” “we have indeed become globalized.” (Bean and Readance, 2002; Schaeffer, 2003).

* E-mail address: igballe_bale@yahoo.com
Igballe Miftari

Turbill (2002) calls our new century “the age of multiliteracies” (p.2003), when one reads text plus “color, sound, movement and visual representations.” (p.2003) As Cornu (2001) notes: “society is changing, schools are changing and students are changing.”

As a result, many researchers believe that the curriculum should also be designed and modified in order to reach students’ needs and expectations: “our literacy programs at all grade levels need to adopt these new tools as part of its’ curriculum so that children are taught how to use these tools effectively, and most importantly, so that our students’ will not consider our classrooms an anachronism that are outmoded and unconnected to the present.” (Cohen & Cowen, 2008: 545). Moreover, “students’ find this new form of communication motivating and exciting and teachers should as well.” (2008:545)

Teachers have a huge impact on student motivation and well-prepared, modern teachers, who adopt technology usage in the classroom, help learners be more focused on the subject and also more interested. However, teachers should be aware of the fact that “with globalization drastically changing the way we work and view the world, everyone must be literate in identifying important information, gathering and evaluating information, using the information to solve problems and clearly communicating the solution.” (Leu, 2001). Our primary question as teachers should not be “how do we teach our children to be literate, but rather “how do we help children be literate in the new literacies that are emerging?” (2008:545).

This new way of teaching is challenging as well as motivating, for it creates new opportunities for exploring with technology, and students are able to experiment with the few new words they have acquired. Skills such as reading and writing are developed as well. In fact, an issue that arises is “does the use of technology “detract” literacy teachers from their prime mission- to encourage children to read books, magazines and newspapers, and to develop a life-long love for reading…?” (2008:545)

My personal opinion is that, as English teachers we should encourage them for both reading books and searching on the Internet for gathering information. Instead of “banning” the use of technology in the classroom, teachers should plan different projects, both task-based and project-based, and also provide students with specific guidelines in how to use different sources and information from the Internet. Unfortunately, as Newman’s (2000) study indicates, many teachers may possess limited technology skills: of 30 teachers surveyed, “only a handful had experience with more than an e-mail and a word processing program.” (Newman, 2000:777).

Many teachers also find technology “hard to handle” because they lack experience, or even training: “while the teacher’s role is changing, current teacher education and training in methods of using technology in the classroom are insufficient.” (President’s Information Technology Advisory Committee, 2002).

These assumptions or even facts, should not, however be discouraging. Technology based seminars or training conferences are likely to help teachers overcome the difficulties and fear they may have. Even surveys, where students accept the fact that they find technology helpful when learning a foreign language, can motivate teachers in using technology. Visual learners, for example, might find technology very helpful: “this correlation of visual stimulus and learning is obvious. Our generation is a visually stimulated generation…I feel that it cannot be avoided.” (Student response, Evans, 2004). The new generations are those that appreciate technology and creativity, and so we should, by all means incorporate it in our teaching.

1.2. Cooperative (collaborative) teaching with the use of technology

Since the article aims to present the use of technology in interactive (collaborative) learning and its importance in teaching, we will further discuss some ways of technology implementation.

Interactive teaching is teaching that takes into consideration learners’ feelings and opinions, and regards learning as a group or pair work activity. Teachers that emphasize the effect of collaborative (community) learning, are those that maintain a cheerful and anxiety- free classroom: “a community of learners is a group of students who share a common interest in a topic, share a particular way of giving out information about the topic, and together build collaborative knowledge with a set of common collective tasks.” (Cohen, 2003)

Providing learners with such tasks is quite simple with the use of technology, too. The greatest advantage is the opportunity to further discuss topics even at home. This not only helps learners to “chat” and give comments on-line
from where they are, outside the classroom, but also provides a great opportunity for the teacher to observe and monitor progress and receive feedback on the certain issue;” various activities for promoting such a community include: having each student post a short biography sketch for the class to read, forming collaborative learning teams among students who work on a specific task on-line, assigning specific discussion questions for teams to respond to, using problem-solving/ case study approach for a group of students and having students present projects or reports online for the class to read and respond to.” (Cohen, 2003).

2. Webquests

Webquests are technology-implementation tasks given by the teacher to the students. According to Cohen & Cowen (2008): “WebQuests are an inquiry-oriented activity, in which some or all the information that students interact with, comes from resources on the Internet. WebQuests are computer-based activities that are designed to take students on a quest or journey to different sites on the Internet where they will be directed to find certain information to solve a problem or answer a question.” (2008:569). WebQuests, are considered to be authentic materials, and as so, are usually solved in cooperative groups: “usually a WebQuest is done in a cooperative group, where members of the group develop expertise on a particular aspect or perspective of the problem they are trying to solve.” (2008:569).

Cohen & Cowen (2008) state that: “there are two types of webquests. The first type of WebQuest is short-term, and is designed to be completed in two or three class periods; the second type of WebQuest is long-term, and is designed to be completed in a week to a month…”(2008:569). Creating and designing WebQuests requires plenty of clear instructions, guidance and websites to be used.

I myself have participated in an on-line distance teacher training course hosted by The University of Oregon, American English Institute (from April 5, 2010 through June 11, 2010) and it was a wonderful experience. Not only did I meet teachers from all over the world to discuss issues in teaching and education, but we also grouped-up and together designed a website. (The website will be further elaborated in the proceeding text).

The critical components of a webquest, according to Cohen & Cowen (2008) are as follows:

- The introduction should orient the learner as to what the webquest will be about and motivate the student to undertake this activity. The question or problem to be solved is first presented to the student in this step.
- The task gives an overview of what the student will need to do to complete the webquest. It further describes the problem and what needs to be done to solve it. This step outlines what the final product or expectations will be on completion of the webquest.
- The process outlines exactly what the steps will be to undertake this webquest. This component will have a step-by-step sequence described for the student.
- Information resources provide the student with the online links and websites to visit to solve the problem. This step should also include resources that the students can use that are not online. It is helpful to have the resources organized under specific topics for the students to help them locate specific information.
- Evaluation provides rubrics to assess performance and to prepare the students so they know exactly what to expect.
- Conclusion summarizes key points and helps the students to bring closure to what they have learned. It is helpful to make connections to other disciplines or topics to relate to the activity. (2008:569)

Also, some other attributes of a webquest are:

- Webquests are most likely to be group activities;
- Webquests are often motivational to students by giving them a role to play (for example, investigator, scientist, member of a committee) and a scenario to frame the problem they will solve (for example, “You’ve been asked by the secretary General of the U.N to submit a report on whether the San Ignacio Lagoon in Mexico, a breeding ground for whales, should be developed into a salt mine.”)
- Webquests can be designed within a single discipline or they can be interdisciplinary. (Dodge, 1997).
At this moment you might be wondering two things, either “why should I incorporate this in my teaching?” or “Wow! I never thought of such tasks!” The truth is, as soon as teachers discover new challenges, they want to try them. Keeping in mind some factors, such as lack of computer knowledge or even lack of circumstances, it might not be as easy, but yet, determination to overcome certain difficulties always helps. If we really want to be modern, interactive teachers, then we must try teaching with the use of technology. Every start is a bit difficult at first, but once you overcome the fear, it becomes an easy task. Referring to my own experience with web designing, it was a disaster! I hadn’t the slightest idea that there were web sites I could visit that could help me solve my problem. But as soon as I discovered some steps, it was done in no time. Here is a first step, instructional part of the web quest. I hope you find it useful.

2.1. Designing a web quest

2.1.1. Teacher as modal

Taking into consideration the grow in technology and the fact that the internet is becoming a primary source for information nowadays, we have decided to design a web quest. The web quest will have the following objectives: it will improve students’ internet and computer skills, enrichen students’ vocabulary, provide extra cultural feedback of the target speaking country, maintain successful cooperative group work among students, raise students motivation in completing the task and achieving high marks, focus not only on one skill but on all skills, emphasizing communication skills and group leader presenter etc.

Goals: after accomplishing the task, students will be able to: talk about and discuss facts concerning the country they planned to visit, organize and plan a trip anywhere abroad, learn many words and terminology concerning the travel agencies, reservations, tour guides, travel requirements etc, most importantly, how to express themselves in front of their classmates, without fear of dealing with a foreign language.

Assessment criteria: students will be assessed according to their group work and power point presentation. They will also be assessed in the manner of gathering sufficient information and convincing facts. The group presenter should be prepared to answer questions and to defend his/her group opinion. The following rubric has the main elements that will be evaluated:

Group work: have worked equally in accomplishing the goal; ideas and thoughts are clear; sufficient information given; real experts in their field etc.

Group presenter + presentation: language and pronunciation clear; introduction arises interest among the others; presentation well prepared; project in order, complied step-by-step; resources cited; well prepared in answering questions posed by classmates etc.

Level and nr. of students: 20 upper-intermediate students, Time limit: 2 weeks

Introduction: Listen class. Today I will give you instructions in completing a task. It will be a project that you will complete in groups of four.

Step 1: Since it will be a web quest, the following are required: open a Google account, go to Google creator etc.

Step 2: Do you like traveling? Have you ever been abroad? Today I want you to imagine that you are planning a visit to an English speaking country. I have written down the names of the countries and one of each group will come pick a paper. After you have received the name of the country (USA, Australia, Canada, England etc.) you are free to decide where exactly you want to go (what city) and why? Every group must gather important info regarding the cities (countries) history, culture, what it is famous for, info concerning travel expenses, hotel reservations etc. Also, each group must attach photos to the web quest, since in a way you will be making “advertising” of the place you wish to go, and the web quest will serve for the others as a guide. You are all “experts” in the investigation and must also provide classmates with sufficient facts and arguments as to why that particular place is special and why they should all visit it. The project will be presented in front of the classmates and the best project will be selected and published. How you divide the tasks between you, is up to you, but keep in mind that all are equals and should cooperate in the project, since group work will be evaluated. Good luck!!

Conclusion: The task was designed in order to introduce the importance of the internet and ways how it can be used in ELT- ESL classrooms. Coming from different countries, with different circumstances and school policies,
we are aware of the fact that many English teachers around the world “lack” opportunities or even knowledge about how group projects using computers can be effective and motivating at the same time. The introduction of a task is very important. It is the manner the teacher presents that stimulates and motivates the students into further cooperation. “Imagine”… has great effects upon the students. They prepare themselves and their imagination in achieving the best. Also, students serving as experts in the field enhances motivation and almost spontaneously critical thinking. One must not forget the role of the target speaking country history and culture—“thinking of yourself as a native automatically facilitates the burden or a foreign language”…last, but not least, students group work their cooperation and finally their presentation helps in improving their skills and communication skills are improved to an extent. Never the less, this was a great opportunity for us as group members to learn from one another and to “exchange” many great ideas and opinions. It truly was a great experience. (On-line teacher training course: Developing EFL literacy through project-based learning, 2010)

The on-line, distant web quest that me and my group designed, was successful, since the feedback we received from Robert and Char (our hosting professors), was really positive and they had really liked our ideas. My group had teachers from all over the world, from India, Turkey, Spain, Macedonia, even China! And if we could “cross” all our differences, cultural, economical and educational, and prove to be successful, then I don’t see why our students can’t be successful too, and I normally don’t see why teachers in Macedonia should not try to use technology in the classroom.

3. Conclusion and further recommendations

I came upon a question, “what will technology resources look like in future classrooms?” and this truly made me think of how we could use technology in the classroom and make learning more effective and creative. According to Richardson, Morgan & Fleener (2006): “teachers will develop more websites, where they will post homework assignments, independent lessons, clarifications, notes to students and parents, streamed videos for computer home viewing about a topic and treasure hunts and web quests that guide students to appropriate sites to find content information.” (2006:118). With this, the use of technology will be more present than ever in teaching. Students prefer to solve tasks, they prefer to use technology and communicate faster than ever. Technology helps teachers become more creative and also motivates students in participating. Even shy students actively participate in on-line activities, and are not afraid of making mistakes. With the use of technology, teachers can be “nearer” to their students even at home, and can monitor students’ progress throughout the academic year, I highly recommend teacher conferencing and seminars, where issues such as these will be discussed and truly hope that, English teachers from the region become more “engaged” and “acquainted” with different ways of technology implementation, and that, we too, take an active part in the teaching/learning process like teachers from around the world.

Here are some useful websites available for teachers:

Webquests:
- http://btsdmial.brick.k12.nj.us/lrms/Webquestmain.html
- http://www.ncte.org

References


