

Implementation of Multiple Intelligences Supported Project-Based Learning in EFL/ESL Classrooms

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Introduction

For over 100 years, educators such as John Dewey have reported on the benefits of experiential, hands-on, student-directed learning. Most teachers, knowing the value of engaging, challenging projects for students, have planned field trips, laboratory investigations, and interdisciplinary activities that enrich and extend the curriculum. "Doing projects" is a long-standing tradition in education (Grant, 2002; Merkhham, et al. 2003).

The world has changed. Nearly all teachers understand how our industrial culture has shaped the organisation and methods of schools in the 19th and 20th centuries, and they recognise that schools must now adapt to a new century. It is clear that children need both knowledge and skills to succeed. This need is driven not only by workforce demands for high-performance employees who can plan, collaborate, and communicate, but also by the need to help all young people learn civic responsibility and master their new roles as global citizens (Merkham, et al. 2003: 3).

Project-based learning is an instructional method centered on the learner. Instead of using a rigid lesson plan that directs a learner down a specific path of learning outcomes or objectives, project-based learning allows in-depth investigation of a topic worth learning more about (Erdem, 2002; Harris & Katz, 2001).

The basis of project-based approaches is hardly new. Early in the 1920s, William Heard Kilpatrick, a professor at *Columbia University Teachers College* and colleague of John Dewey, advocated project-based instruction. His notion was that such instruction should include four components: purposing, planning, executing, and judging (Foshay, 1999).

What is Project Based Learning?

In a sense, the need for education to adapt to a changing world is the primary reason that project-based learning (PBL) is increasingly popular. PBL is an attempt to create new instructional practices that reflect the environment in which children now live and learn. And, as the world continues to change, so does our definition of PBL. The most important recent shift in education has been the increased emphasis on standards, clear outcomes, and accountability. PBL is a field that you, as a practitioner, will help create by your actions and leadership in the classroom (Merkham et al. 2003: 4).

Project-based learning approaches are based on constructivist theory (Henze & Nejd, 1997). Project-based learning has to be used to rebuild real-world complexity. Also, abstraction in project-based learning is necessary and small exercise can be used to discuss specific issues (Henze & Nejd, 1997). The global project context determines the learners' perspective on a given task, while subtasks in a smaller context provide guidance of the learning process. The ability to develop multiple and alternative perspectives on a problem is also a central skill for performing tasks. Collaborative learning promotes the exchange and reflection on different views. As project work is often done in teams, learners train their capabilities for team-work and collaboration (Henze & Nejd, 1997).

Project-based learning places demands on learners and instructors that challenge the traditional practices and support structures of schools. Learning from doing complex, challenging, and authentic projects requires resourcefulness and planning by the student, new forms of knowledge representation in school, expanded mechanisms for collaboration and communication, and support for reflection and authentic assessment (Laffey et al. 1998).

EFL / ESL Teaching and Project-Based Learning

Project-based learning functions as a bridge between using English in class and using English in real life situations outside of class (Fried-Booth, 1997). According to Stein (1995), It does this by placing learners in situations that require authentic use of language in order to communicate (e.g., being part of a team or interviewing others). When learners work in pairs or in teams, they find they need skills to plan, organise, negotiate, make their points, and arrive at a consensus about issues such as what tasks to perform, who will be responsible for

each task, and how information will be researched and presented. These skills have been identified by learners as important for living successful lives. Because of the collaborative nature of project work, development of these skills occurs even among learners at low levels of language proficiency. Within the group work integral to projects, individuals' strengths and preferred ways of learning (e.g., by reading, writing, listening, or speaking) strengthen the work of the team as a whole (Lawrence, 1997).

Features of Project Based Learning Instruction

Let's take a closer look at four features that facilitate use of project-based instruction in K-12 classrooms (Blumenfeld et al. 1991):

1. A "driving question" that is anchored in a real-world problem and ideally uses multiple content areas.
2. Opportunities for students to make active investigations that enable them to learn concepts, apply information, and represent their knowledge in a variety of ways.
3. Collaboration among students, teachers, and others in the community so that knowledge can be shared and distributed between the members of the "learning community".
4. The use of cognitive tools in learning environments that support students in the representation of their ideas: cognitive tools such as computer-based laboratories, hypermedia, graphing applications, and telecommunications.

With Project Based Learning, children learn to plan and research, ask questions, make choices within alternatives, and apply knowledge gained within their regular classes. A project is an in-depth investigation of a real world topic worthy of children's attention and effort. Projects can be undertaken with children of any age and they do not constitute the whole educational program. Younger children will play and explore as well as engage in projects. Older children's project work will complement the systematic instruction in their program. Projects enrich young children's dramatic play, construction, painting and drawing by relating these activities to life outside school.

Project work offers older children opportunities to do first hand research in science and social studies and to represent their findings in a variety of ways. Children also have many occasions in the course of their project work to apply basic language skills and knowledge. There is more opportunity to relate home and school learning. There is concern for memorable learning as well as memorised learning. Children are expected to work cooperatively on complex and open-ended tasks as well as follow instructions in step by step learning. The project approach provides a way to introduce a such wide range of learning opportunities into the classroom.

Project Based Learning and Multiple Intelligences

Once teachers feel comfortable with PBL, they usually find teaching with projects to be more fulfilling and enjoyable. PBL is a way of working with students as they discover more about themselves and the world, and that brings job satisfaction. However, in addition to strong instructional and organisational skills, PBL requires that teachers facilitate and manage the *process* of learning. Rather than rely on the model of the child as an empty vessel to be filled, PBL teachers must create tasks and conditions under which student thinking can be revealed—a co creative process that involves inquiry, dialogue, and skill building as the project proceeds (Markham et al. 2003: 8-9).

Students help choose their own projects and create learning opportunities based upon their individual interests and strengths. Projects assist students in succeeding within the classroom and beyond, because they allow learners to apply multiple intelligences in completing a project they can be proud of. Our society values individuals who can solve problems creatively, using multiple strengths, so why shouldn't we encourage students to do the same? However, traditional teaching strategies tend to focus on verbal/linguistic and mathematical/logical intelligences alone. This can create frustration for people who are comfortable with less traditional learning modalities, such as kinaesthetic, visual, interpersonal, intrapersonal, musical, or naturalist. Project based learning allows the teacher to incorporate numerous teaching and learning strategies into project planning and implementation. Assisting learners in developing all of their intelligences will make learning a part of living, not just a preparation for it. *The theory of Multiple Intelligences* offers eight ways of teaching and learning styles. In this regard, armed with the knowledge and

application of the multiple intelligences, teachers can ensure they provide enough variety in the activities they use so that as much of their pupils' learning potential can be tapped as possible (Bas, 2008; Berman, 1998).

Application Process of Project Based Learning with Teachers' and Students' Roles

The basic phases found in most projects include selecting a topic, making plans, researching, developing products, and sharing results with others (Wrigley, 1998). Information gap activities, learner-to-learner interviews, role plays, simulations, field trips, contact assignments outside of class and process writing with peers prepare learners for project work.

Korkmaz & Kaptan (2000) evaluated the *Project-based learning* in context of six steps. The processes and roles in these steps have been shown below:

Application Process	Things that will be done	Teachers' role	Students' role
1. <i>Stating the subject and sub-subjects, organising the groups</i>	Students explore the resources and in order to create a frame for the project they state questions	He/she presents the general subject of the research and they guidance the explorations of the subjects and sub-subjects in groups.	They create interesting questions and categorise the problems. Also, they help creating project groups.
2. <i>Groups create projects</i>	Group members make a project plan. They ask questions as "Where are we going?", "What will we learn?", vs. They choose their roles in the project.	He/she helps to formulate the students' projects and makes meetings with group members. They also help pupils to find the necessary materials and equipment.	They plan what they work on, select the roles and define the contents of these roles.
3. <i>Application of the project</i>	Group members are organised and analyse the data and information.	He/she helps the students develop necessary working qualifications and also control controls the groups.	They explore questions for answers. Also, they organise the information and synthesise the findings and summarise them.

4. <i>Planning of the presentation</i>	The members define the essential points in their presentation and then decide on how to present the project.	He/she makes the students debate on the lesson plans and also they make them organise the presentations.	They make decisions on the key points and concepts of the project and make a project preparation plan. Also, they develop materials for the project.
5. <i>Making the presentation</i>	Presentations can be made in any (in different schools, classes, vs.) places.	He/she coordinates the students' presentations.	Students present their project and give feedback to their classmates.
6. <i>Evaluation</i>	Students share the feedback of everyone on their project. Both the students and the teacher share the project(s) with everyone.	He/she evaluate the project summaries and the students.	With the group members the students reflect what they learnt in the project process. They also join in the evaluation process of their own project.

Sample Project-Based Learning Activity in EFL/ESL Classrooms

Introduction

We live in a big world. Every nation has its own unique life-styles or living styles. For example, we live in a different culture, Indians, Germans or Mexicans, vs. live in different cultures so that they have their own living styles.

Purposes

- Present different life-styles and different cultures and countries.
- Use the knowledge on the Theory of Multiple Intelligences.

Exercises

The teacher comes to classroom without his/her own clothes because he/she is wearing a different costume which belongs to a different nation or country. He/she begins singing a song

which reflects the culture and music style of the target country and also he/she brings some materials that show the culture of the target culture or country.

Necessary Materials

- Different clothes (hats, scarves, parkas, vs.) that belong to some of the nations in the world.
- Materials that will be used in the presentation of different countries (CDs, pictures, manuscripts, photographs, coloured pencils, papers, vs. (with some scissors and glue).
- Internet / computer access

Process of the Project

- Introduction, group sharing, explanation of the project.
- Small group investigations.
- Presentation: Depending on the total number of each group.

Application

1. The group leader presents a map of the target country.
2. Students share their knowledge and beliefs, vs. of the target country and / or on some of its cities with group members.
3. The leader creates small groups on the personal preferences of the group members. They explore the target country and then prepare the necessary materials and get information about it.
4. Each group uses their own materials and the teacher presents 8-10 different preferences to use the materials to the students.
5. Small groups explore the target country in books and on the Internet.
6. Each group prepares a presentation by using at least four / five intelligences (in Multiple Intelligences Theory) and develops their project under the guidance of these intelligences.
7. All of the students present their projects to the students in the classroom and also share their feedback with them.

Evaluation

In the evaluation process the teacher asks these questions to him/herself?

- Did the students explore information on the target country in books and on the Internet?
- Did the students study together in the project making process? (Were they cooperative?)
- Did the students think on possible / impossible conditions and the other things in the project making process?
- Did the students present an original project by using the stated intelligences?

Also, in Project-based learning activities students evaluate each other in the group (group assessment), project maker students are also evaluated by their classmates (peer assessment). Plus, students exhibit their project in necessary parts of their school and get the evaluation of the other students in the school. If possible parents can also evaluate their children's projects and give feedback to the projects (Williams, 1998).

Project-based work lends itself well to evaluation of both employability skills and language skills. Introducing learners to self-evaluation and peer evaluation prior to embarking on a large project is advisable. Learners can evaluate themselves and each other through role plays, learner-to-learner interviews, and writing activities. They can become familiar with completing evaluation forms related to general class activities (Lawrence, 1997). Multiple-choice and true-false tests may be inappropriate to judge the quality of learning that has occurred. Two suggested options include portfolios and rubrics. Portfolios offer the opportunity to employ multiple forms of assessment through different types of works and allow the learner some choice over which items will be included (Levstik & Barton, 2001).

Possible Multiple Intelligences Projects Dealing with the Target Subject

Linguistic-Verbal Intelligence: Write a letter to a friend that tells about the target country.

Mathematical-Logical Intelligence: Create a graph or chart that shows the highest mountains, rivers, vs. and the biggest cities, vs. to the target culture.

Spatial Intelligence: Prepare a journey brochure that shows the tourist destinations in the target country.

Interpersonal-Social Intelligence: Act out a play that presents a daily life in the target country.

Personal Intelligence: Listen to a cassette and then reflect some of the parts of daily lives in the target country by writing on a piece of paper.

Kinaesthetic Intelligence: Create a map and then show important cultural and historical buildings in the target country.

Musical-Rhythmic Intelligence: Sing a popular song by using an instrument and then present some of the popular singers in the target country to the class.

Naturalistic Intelligence: Explore the plants and animals that grow up and live in the target country.

Existential Intelligence: Analyse the cultural traits of the people in the target country by showing daily clothes and materials, which reflects the target culture, people wear and use there.

Conclusion

Project-based work involves careful planning and flexibility on the part of the teacher. Because of the dynamic nature of this type of learning, not all problems can be anticipated. Moreover, sometimes a project will move forward in a different direction than originally planned. Project work is organic and unique to each class. This makes it exciting, challenging, and meaningful to learners (Moss & Van Duzer, 2005).

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