Integrating Project Work in the EFL Classroom

Ken Fujioka
Keisen University

Reference Data:

Fujioka, K. (2012). Integrating project work in the EFL classroom. In A. Stewart & N. Sonda (Eds.), *JALT 2011 Conference Proceedings*. Tokyo: JALT.

Basic frameworks necessary for designing class projects in an EFL classroom are explored in this paper. Analysis of successful projects found the following common elements: learners worked in a collaborative atmosphere, engaged in theme-related learning activities, collected related content matter from various sources and finally, presented a compilation of collected and analyzed information. Applying these components, the author introduces a class project that was designed for engineering students in a Japanese university.

本論文では、ＥＦＬ授業のクラスプロジェクトをデザインする上での基礎的な枠組みの必要性を調査する。うまく履行されると、解析されたプロジェクトには次に挙げる共通した要素が認められた。学習者が、協力的な環境下で行ったこと、テーマに関連したアクティビティに従事したこと、様々な情報源から関連内容事項を集めたこと、そして最終的に、収集し分析した情報をまとめあげプレゼンテーションしたことである。これらの構成要素を適用し、日本の大学工学部の学生のためにデザインされたクラスプロジェクトを紹介する。

Projects are an integral part of learners' class work whether the assignment is writing a thesis in university or explaining an exhibit at a science fair. Projects vary in content as well as in their scale: from simple tasks, such as giving a summary report on a newspaper article, to more complex activities, such as conducting and explaining a laboratory experiment.

There are many benefits of project work. Learners relish the fact that they have autonomy over their planning and decision-making (Stephenson & Kohyama, 2003; Cunningham & Carlton, 2003). Since much of the work is collaborative in nature, learners also favor the supportive atmosphere (Carney & Foss, 2008; Kagnarith, Theara, & Klein, 2007). In addition, projects can accentuate learner creativity and boost their confidence (Tomei, Glick, & Holst, 1999; Thorp, 1997). Learners are more receptive to specific activities when they can perceive their importance and relevance to the learning process (Alan & Stoller, 2005; Servetter, 1999). They are also more motivated to perform class work when the content is interesting and they are given the opportunity to both contribute and be successful (Tessema, 2005). On the other hand, project work loses its appeal when guidelines are too constraining or offer too few opportunities for learner creativity and decision-making (Sheppard & Stoller, 1995). Fried-Booth (1986) notes that learners' interests as well as their language needs vary, so it is essential for instructors to

be sensitive to these differences and to prepare lessons to address such issues. Alan and Stoller (2005) suggest that determining the proper balance between teacher guidance and learner autonomy is a crucial element of project planning. This indicates that learners may feel more engaged in their work when both their language needs are addressed and they are given the opportunity to make choices.

The questions to be explored in this paper are: what are specific guidelines for implementing project work and designing such courses, and how can the projects and related activities be integrated into English classes? This paper attempts to provide answers to these questions and also describes in detail a science project designed for engineering students at a Japanese university.

Science Project

This project course was established for Japanese university students in the department of electronics. The class, composed of 25 second-year men and women of mixed levels of English proficiency, was an introduction to technical English course, a one-semester course which met once a week for 90 minutes. The department chair and I agreed on an overall goal: to provide students with a foundation in English scientific and mathematical terminology so they could do presentations about their laboratory work for English-speaking colleagues.

Having no educational background in the field of electronics, the biggest hurdle for me was conceiving the nature of the project and planning the related class work. For this reason, efforts were made to de-emphasize technical concepts, and to focus instead on communication tasks that could be applied in research work, such as brainstorming ideas, testing theories, demonstrating processes, and giving presentations. Stoller (1997) noted that "project work leads to the authentic integration of skills and processing of information from varied sources, mirroring real-life tasks" (The primary characteristics of project work section, para. 5).

In addition to class project assignments, students devoted about an hour of class work each week to oral and aural work. The textbook, *Basic English for Science* by Kobayashi, Fujieda, and Sugawa (1999), was used for reference and instruction in preparation for both the mid-term and final projects. The book covers commonly used terms, phrases and expressions which are central to scientific work and which can be practiced and applied in presentations. It starts with basic terminology focusing on numbers, geometric shapes, and mathematical formulae and progresses to sentence-level expressions for giving instructions and explanations. Finally it supplies models for describing and stating results from experiments.

Literature Review

Project Design

There are a couple of useful guides for designing projects in the EFL classroom. The first is a teacher resource volume by Fried-Booth (1986) entitled *Project Work,* which recommends project planning activities for both in-class and out-of-class work. There are three main stages of a project:

1. Classroom planning.
2. Carrying out the project.
3. Reviewing and monitoring the work.

In the classroom planning stage, the learner and instructor negotiate the project theme, language needs, and various ways to reach the outcome. It is in this stage that learners engage in controlled and then, less controlled linguistic practice. The second stage focuses on outside work where learners have autonomy in performing "real" tasks such as taking part in interviews

and preparing materials. The final stage involves reflection and obtaining student feedback.

The other project guide I used is a journal article written by Alan and Stoller (2005). The reading provides a ten-step procedure that can be adapted and applied to project planning (pp. 14-17):

1. Students and instructor agree on a project.
2. Students and instructor determine the final outcome of the project.
3. Students and instructor structure the project.
4. Instructor prepares students for information gathering.
5. Students gather information.
6. Instructor prepares students for compiling and analyzing data.
7. Students compile and analyze information.
8. Instructor prepares students for the final activity.
9. Students present the final product.
10. Students evaluate the project.

Guidelines for Project Work

Based on the suggestions by Fried-Booth (1986) and Alan and Stoller (2005), six essential factors were considered when designing the science project course. The key factors are highlighted below, along with projects from which they are derived.

Learners engage in theme-related activities that provide language-learning opportunities

Thorp (1997) helped his students research Covent Garden, a popular area in London frequented by tourists, by conducting street interviews. George (1996) initiated a Japanese-Thai peer-exchange project by having students from both countries exchange opinions on global environment problems through the use of journals.

Learners work as a team to complete the tasks

Tessema (2005) divided students into small groups to research social issues, share their findings, and finally write an essay. Cunningham and Carlton (2003) on the other hand, initially had students take on individual assignments, but the final task involved collaboration to publish a school newsletter.

Instructor prepares learners for language work

Sheppard and Stoller (1995) recommended language practice at different junctures of project work. For example, in preparation for their presentation, students used newly learned vocabulary to research computer information and make recommendations for their proposal. Porcaro (2001) used authentic news video and reading materials to introduce students to rhetorical forms and scientific terminology to enhance their comprehension of scientific research journals.

Learners conduct fact-finding and fact-gathering activities

Kagnarith, Theara and Klein (2007) suggested that utilizing written questionnaires to gather information encourages the use of all four skills. Students wrote survey questions, interacted with respondents, analyzed the data, and recorded the results for their final reports. Alan and Stoller (2005) assigned students to examine the public transportation system in their neighborhood to determine its effectiveness.

Learners present information based on their research

Stoller (1997) concluded project work with a school-wide debate focusing on the theme of American elections. Students were given a choice of campaign topics such as crime, abortion, family leave, immigration and censorship. They presented their research by either writing a report, presenting a poster display, engaging in debate, publishing a newspaper, or making a video. Servetter (1999) sponsored an "International Travel Fair" in which students displayed posters to explain various travel destinations and plans.

Instructor provides opportunities for autonomous learning

Stephenson and Kohyama (2003) introduced English projects to freshmen who set their own language learning goals and devised self-learning tasks in order to achieve the goals. Carney and Foss (2008) assigned students structured parameters for producing short films, but students were able to select the specific genre of their films, write their scripts, and edit their films.

Designing the Science Project

The basic framework for designing the science project for engineering students consisted of both in-class and out-of-class work. The in-class activities focused on the learning and production of content material for presentation. For example, students engaged in receptive activities such as reading and listening assignments to become familiar with the theme. A textbook was used to introduce the bulk of the language for their presentations. The out-of-class work required students to gather information, divide responsibilities, assign tasks, and organize the presentation. An effort was made to strike a balance between controlled in-class activities and learner-negotiated out-of-class work.

The remainder of the class period was allocated for project planning and weekly briefings. Once the project teams were set up, the group leader was responsible for providing periodic updates on their progress and reporting any change in plans. The updates centered on the following:

1. Presentation preparation.
2. Roles and responsibilities.
3. Potential problems and changes in plans.
4. Miscellaneous questions (procedural or language-related).

Mid-Term Project

The purpose of the mid-term project was to reinforce and practice the rhetorical forms and scientific terminology learned from the textbook and to gain experience making presentations in English. For their poster presentations, students explained a particular process by articulating a series of steps using the passive voice and sequence markers. For example, students described how to set up an electronic circuit board or how to light a bulb using a grapefruit and wires. Sketches of each step with key words were displayed on posters. The specific objectives were:

1. To make a flowchart.
2. To give a self-introduction and explain the topic.
3. To explain a process.
4. To conclude the presentation.

At assigned sections of the classroom, students showed their posters to small audience groups. The audience rotated around the room and took notes. After giving their presentation four times to different listeners, the speakers and audience exchanged roles so that the members of the audience group could give their presentation.

This presentation experience turned out to be a very good "warm up" for the end-of-term project. For many speakers, the informal setting and the smaller audience made them feel less nervous, especially about answering questions at the end of their talk. All presentations were completed within one 90-minute class period. A simple checklist was given to the audience to monitor the speakers' talks (see Appendix A).

End-of-Term Project

The end-of-term project was introduced after students viewed a news report on an egg-drop competition held at another university. The task required listeners to identify and explain what the contestants were doing. A worksheet from the listening activity is shown in Appendix B. After viewing the video clip, students reported that:

1. The project team constructed a protective container which housed a raw egg,
2. The container was dropped vertically from a certain height, and
3. The drop was successful if the egg had no breaks or cracks after impact.

The project objectives were then listed on the board. They were:

1. To gather information through online sources.
2. To collaborate in group planning.
3. To prepare a group presentation.

In order to achieve the objectives listed above, project teams were given the following tasks:

1. Browse websites which feature egg-drop competitions and obtain relevant information.
2. Discuss the rules for each competition.
3. Brainstorm, design, and construct a crash-proof (egg) container.
4. Prepare and present their own project:
   a. Display container model and note the dimensions and shape of the container(s).
   b. Identify the materials used for constructing the container.
   c. Demonstrate the process of putting together the container.
   d. Discuss problems encountered in the planning stages.
5. Stage an egg-drop competition.
6. Evaluate the course.

Reading homework was given for the purpose of clarifying the scope of the project. Students accessed online information to determine the rules for the competition and made sketches of egg container designs for their project.

The rationale for the reading was for the class to prepare the rules for their egg-drop competition. They had to agree on the regulations such as the drop-off height, the kinds of materials which could be used for constructing the container (e.g., paper-based materials only, or plastic materials), and the limits, if any, on the size of the container (e.g., length, width, depth totaling no more than 100 centimeters) (see Appendix C).

For the presentation, each project team displayed their container, and using poster sketches, demonstrated how to put the container parts together. Each group presentation was about 20 minutes long, thus with a total of six or seven teams in the class, presentations were completed over a span of two 90-minute class periods. For the egg drop competition group leaders scaled to the top floor of the building, and released their containers. After the drops, the containers were opened in the classroom.

Class Evaluation

In a mixed-level English class, students found the production activities were easier than the receptive activities. Most students felt that their presentation and demonstration skills improved. While their assessment of the presentations varied in terms of their difficulty, this was consistent with the amount of time they put into their preparation. Most of the students felt that the project work was difficult mainly because extra work was necessary to complete the task. They commented, however, that the "show and tell" presentation and competition were interesting and fun. Interestingly, the opportunity to work as a team garnered the highest positive ratings. This suggests that collaborative activities have a great appeal, perhaps because these students were quite accustomed to this form of cooperative learning from their laboratory work.

Conclusion

Project work provided students with opportunities to generate language in group discussions and presentations. The solutions for designing protective containers were wide and varied and spurred further debate. Online readings and news video provided students with adequate input for initiating discussions. In assigning project-based tasks, the guidelines offered enough latitude for autonomy and creativity (in product design), collecting information, assigning roles and specific responsibilities, and agreeing on deadlines. At the same time, students were held accountable for reporting their progress to the teacher. While language and content production were the indicators most prominent in their learning, students also experienced the benefits of engaging in problem-solving and team-building, necessary traits in their field of study. In addition, the teams' artistic and technical creativity led to heightened interest so they sought to learn more about their classmates' work by listening to their presentations. Finally, I hope that this paper has provided incentives for others to integrate project work into their course plans.

Bio Data

Ken Fujioka teaches at Keisen University in the Department of English Communication. He is currently interested in developing classroom materials for courses in Japanese American studies.

References

Alan, B., & Stoller, F. L. (2005). Maximizing the benefits of project work in foreign language classrooms. *English Teaching Forum, 43*(4), 10-21.

Carney, N., & Foss, P. (2008). Student-produced video: Two approaches. *English Teaching Forum, 2*, 14-19.

Cunningham, J., & Carlton, W. (2003). A class project: Collaborative newsletters. In A. Barfield & M. Nix (Eds.), *Learner and teacher autonomy in Japan 1: Autonomy you ask!* (pp. 113-128). Tokyo: The Learner Development Special Interest Group of JALT.

Fried-Booth, D. L. (1986). *Project work*. Oxford: Oxford University Press.

George, D. (1996). Cross-border peer journals in EFL. In G. van Troyer, S. Cornwell, & H. Morikawa (Eds.), *On JALT 95: Curriculum and evaluation* (pp. 233-236). Tokyo: Japan Association for Language Teaching.

Kagnarith, C., Theara, C., & Klein, A. (2007). A questionnaire project: Integrating the four macro skills with critical thinking. *English Teaching Forum, 1*, 2-9.

Kobayashi, T., Fujieda, M., & Sugawa, A. (1999). *Basic English for science*. Tokyo: NAN'UN-DO Publishing Co., Ltd.

Porcaro, J. W. (2001). Integrating authentic materials and language skills in English for science and technology instruction. *English Teaching Forum, 39*(2). Retrieved from http://exchanges.state.gov/englishteaching/forum/archives/docs/01-39-2-h.pdf

Servetter, B. (1999). Cooperative learning and learner-centered project for lower-level university students. In D. Kluge, S. McGuire, D. Johnson, & R. Johnson (Eds.), *Cooperative learning* (pp. 108-116). Tokyo: Japan Association for Language Teaching.

Sheppard, K., & Stoller, F. L. (1995). Guidelines for the integration of student projects into ESP classrooms. *English Teaching Forum, 33*(2). Retrieved from http://exchanges.state.gov/englishteaching/forum/archives/1995/docs/95-33-2-c.pdf

Stephenson, J., & Kohyama, M. (2003). Tuning freshmen into autonomy through student-directed language learning projects. In A. Barfield & M. Nix (Eds.), *Learner and teacher autonomy in Japan 1: Autonomy you ask!* (pp. 101-112). Tokyo: The Learner Development Special Interest Group of JALT.

Stoller, F. L. (1997). Project work: A means to promote language content. *English Teaching Forum, 35*(4). Retrieved from http://exchanges.state.gov/englishteaching/forum/archives/1997/docs/97-35-4-b.pdf

Tessema, K. A. (2005). Stimulating writing through project-based tasks. *English Teaching Forum, 43*(4), 22-28.

Thorp, D. (1997). Covent garden captured: An experiment in project work. *TESOL Journal, 6*(4), 11-15.

Tomei, J., Glick, C., & Holst, M. (1999). Project work in the Japanese university classroom. *The Language Teacher, 23*(3), 5-8.

Appendix A

Presentation Checklist

Make a check (✓) beside each strategy that was used in the presentation.

- Name of Speaker: _____
- Greeting _____ (*Hello.*)
- Self-Introduction _____ (*My name is* _____.)
- Topic Introduction _____
  (*Today, I'd like to explain the process of* _____.)
- Use of sequence markers _____ (*First, Next, Then, Later, Finally)*
- Use of passive voice _____ (_____*is/are + verb (ed))*
- Inviting questions _____ (*Are there any questions?*)
- Ending _____ *(If there are no more questions, I'll end my presentation, thank you.*)
- Understanding (Please circle the percent of the presentation you understood.) 0%----25%----50%----75%----100%

Appendix B

Project Introduction

News Video

I. **Getting the main idea**: After viewing the news, try to answer the following questions. Confirm your answers with your classmates.

1. Who are they?
2. What are they doing?
3. Where are they?
4. Why are they doing this?
5. How did they do it?

II. **Key words**: Now listen for any key words that you hear and write them below.

III. **What is the main idea of the news?** Using key words above, write one sentence what the news is about.

This news is about _____.

IV. **Questions**-Please write and exchange your answers with your classmates.

1. What do the contestants have to do?
2. What is the competition?
3. What are the objectives for the egg-drop competition?
4. How is the winner decided?

Appendix C

Internet Search

Information Search

1. Search for information about egg drop competitions. Write the URL addresses below.

a.URL: _____

b.URL: _____

2. What egg container designs did you find that were interesting and creative? Please sketch them below.

3. What were the rules for competition? Please write them below.

Rule no. 1: _____

Rule no. 2: _____

Rule no. 3: _____

4. What were the rules for constructing the container? Please write them below.

Rule no. 1: _____

Rule no. 2: _____

Rule no. 3: _____

5. What rules would you suggest for our competition?

Rule no. 1: _____

Rule no. 2: _____

Rule no. 3: _____