Exploring the effectiveness of project-based learning: Teacher reflections on a student-led seminar project

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Abstract

Research on project-based learning in second language acquisition has shown that this approach to teaching can have benefits in terms of promoting 21st-century skills. This paper details a student-led seminar project which was implemented by three instructors during the Fall semester of the Advanced English course at Rikkyo University. After providing a complete description of each stage of the project, each instructor reports on unique aspects of how the project was conducted in their class, the positive outcomes of the project, and ways in which the project could be improved. In particular, this paper reflects on outcomes of the student-led seminar project in terms of learner autonomy, motivation, group dynamics, and the development of academic skills.

Keywords: Project-based learning; Collaborative learning; Learner autonomy, 21st century skills

Background to Project-based Learning

Project-based learning (PBL) has long been lauded as a way to promote more meaningful learning in language programs (Peterson & Myer, 1995; Skehan, 1998; Thomas, 2000; Beckett, 2002). PBL has many similarities to other approaches to language learning, such as task-based learning, problem-based learning, also often confusingly abbreviated as PBL, action-based learning, etc. However, PBL distinguishes itself in a number of ways. Firstly, under PBL, the projects should be the focal point of the curriculum and not ancillary (Thomas, 2000). The projects should be complex, take place over many class periods, and result in a final tangible product (Stoller, 2006). Additionally projects should also be process-oriented and consist of many integrated, dynamic tasks that require learners to use real-life skills, such as, investigating real-life problems, utilizing authentic materials, and reflection activities (Stoller, 2006). Finally, central to PBL is a shift away from teacher-centeredness to a learner-centered, constructivist approach, where students work collaboratively and autonomously to complete their tasks (Kassem, 2018).

A multitude of research has suggested that the PBL approach has several benefits for helping students to develop 21st-century skills that are valuable to functioning in the modern globalized world. Firstly, through engaging with complex, real-life tasks, it has been noted that PBL stimulates students to develop higher-order creative and critical thinking skills, such as; brainstorming ideas; resourcefulness in finding materials; evaluating authentic sources of information; and showing initiative in how to complete tasks (Roessingh & Chambers, 2011). Moreover, by working collaboratively and autonomously in groups, students are encouraged to develop team-working and self-management skills, such as; assigning roles and jobs; resolving conflicts and reaching compromises; and sharing and assimilating knowledge from each other's research (Thuan, 2018). Finally, completing these tasks in English requires students to develop many integrated language skills. Students need to develop reading skills to deal with authentic sources through their research, as well as writing skills by writing up the results of their projects in a report. Students also develop practical listening and speaking skills through purposeful discussion and negotiation with their group

mates, as well as presenting their reports (Kavlu, 2017).

Despite the abovementioned benefits, there are several considerations that need to be taken into account when attempting to implement PBL. Firstly, if the project does not provide adequate opportunities for the students to assign jobs for each other or engage in meaningful discussions, the students may face demotivation (Kavlu, 2017). Additionally, students who are not accustomed to working in groups might face difficulties in negotiating tasks and reaching compromises with their group mates, which can lead to breakdowns in communication and conflict (Grant, 2002). Furthermore, as students are working autonomously, it can be a challenge for teachers to monitor how much each group member is contributing to the project, and it can be easy for a small number of members of the group to do the majority of the work with other members being pushed to the periphery (Kavlu, 2017).

In order to alleviate some of the aforementioned issues, teachers must take a great deal of care prior to the start of the project-based learning program to prepare a framework for the project(s) that will allow students to utilize the skills outlined in earlier (Kassem, 2018). It is also important for teachers to make the goals and expectations of the project explicit to the students, and teachers may also need to provide extensive training and scaffolding to facilitate the process of learning and allow students to develop their skills (Roessingh & Chambers, 2011). Moreover, teachers need to incorporate systems to monitor each project group's progress and be prepared to provide feedback and assistance where necessary (Roessingh & Chambers, 2011). In fact, despite PBL's focus on learner autonomy, it has been reported that managing PBL programs often requires more effort on the part of the teacher than traditional teaching methods (Fang & Warschauer, 2004). However, with the right preparation and implementation, PBL can offer a rewarding experience for both students and instructors.

Background to Rikkyo's Advanced English Programme

The Advanced English (AE) program at Rikkyo University is a first-year student advanced skills-based course that prepares students for transition into an international academic environment (Rikkyo ELP, 2021). To qualify for this course, students need to have achieved a TOEIC score greater than 680. As this is the only criterion for entry to the course, the advanced program often consists of students with a mixture of communication skill levels.

The AE program is split into two courses; one in the spring semester, focusing on academic reading and writing; and one in the fall semester, focusing on project-based learning. Each course consists of 28, 100-minute classes held twice a week over 14 weeks. In the first semester of AE, students are expected to become familiar with the process of writing an academic research paper and write at least one expository report. Students are also expected to learn skills to make basic presentations of their reports in this semester (Rikkyo ELP, 2021). In addition to their AE classes, all first-year student take a discussion class where they learn how to hold clear and balanced discussions on a range of academic topics, as well as critical thinking skills to consider those topics from a range of different perspectives. As a result, students come into the second semester with some skills, which will be useful for the projects they will engage with.

In the second semester of AE, students use the academic skills from the first semester practically though PBL. Teachers have a great deal of flexibility in designing the projects for their classes. However, the projects should be designed so that students gain knowledge of academic content in English to become confident and proactive in communication with people of other countries and

cultures. In addition, the projects should aim to develop independent learning skills so that students can become more autonomous, collaborative, and creative (Rikkyo ELP, 2021).

This report will focus on a student-led seminar project which the three authors worked on collaboratively in the second semester of their AE classes in the academic year of 2020/2021. First, the procedure and rationale of the project as it relates to the literature outlined above will be presented. Then, each author will share reflections of their experiences and thoughts on the project.

Procedure of the Student-led Seminar Project

The student-led seminar project was the first of two projects conducted by the authors during the course, and took place over the first 15 of the 28 lessons in the semester. In line with the objectives of the AE syllabus, the students work collaboratively in groups of 3 or 4 to create an informative lecture on a controversial world topic. The purpose of the lecture is to inform the audience about the most common arguments given for and against their chosen topic. To give an example, if a group chose to conduct a seminar on the death penalty, the students would present the most powerful arguments for having the death penalty and for abolishing it. After the lecture, the group members lead group discussions on the arguments raised in the lectures which are recorded. After completing the seminar, the students qualitatively analyze the group discussions and write up a summary of their lectures and the results of their analyses in an academic report. Below, you can find an outline of the content of each period in the project:

Table 1
Student-led seminar project lesson schedules

Period	Focus
1	Introduction to project work and the student-led seminar project
2	Researching and plan lecture
3	Creating the lecture slideshow
4	Presentation delivery advice
5	Leading a discussion and summarizing a discussion
6	Final preparations and seminar practice
7, 8 & 9	Seminars
10	Qualitative analysis of the group discussions
11	Writing up the lecture
12	Writing the method & conclusion sections
13	Peer review
14	Feedback and Writing the second draft
15	Wrap-up and Mini presentations

As mentioned in the literature review, it is very important that learners clearly understand what will be expected of them in the project. Therefore, the first period focuses on introducing the students to PBL. The students are first given a thorough outline of the project. They are informed that they must prepare a 40-minute seminar on a controversial world issue. The first 15-minute of the seminar consist of a lecture informing their audience (their other classmates) of the background and the common arguments given for and against their chosen issue. The remainder of the seminar is dedicated to having the project groups discuss the ideas raised in the lecture with their audience.

The details of each part of the seminar will be discussed in more detail in the following paragraphs. After introducing the seminar project, the students discuss the possible challenges they might face when working autonomously. The teacher then leads a discussion with the class, adding to the students' ideas and providing advice about how to deal with issues, such as, resolving disputes, reaching consensus, assigning jobs, ensuring that all group members participate equally, and how to communicate effectively with the teacher when they have questions. The students then form project groups and choose a topic for their seminar. To help students find a suitably interesting and controversial topic for their seminars, and to provide a start to their research, the students are advised to access the procon.org website. This website is a useful resource providing information on a wide variety of current world issues, ranging from the regulation of social media to space colonization. For each issue, the website provides background information and a summary of some of the common arguments for and against the issue. After agreeing on a topic, the students review the information on procon.org for homework ready to discuss the ideas in the next class.

From the second class onwards, each period follows a similar pattern. The first 15-20-minutes are spent introducing a new aspect of the project and the tasks the groups are expected to complete. After this initial scaffolding period, the remainder of the class is given to the students to work autonomously in their groups where they discuss and complete their tasks. To help the teacher monitor progress, each group should give a short report on the tasks they have completed and the tasks that each member has been assigned at the end of each class. Additionally, the teacher creates a Google Drive folder for each group where the students work on their assignments using Google Docs and Google Slides. This not only helps the group members to work collaboratively on their tasks, it also allows the teacher to easily monitor the progress of each group and what each individual member has contributed to the project.

In period 2, the students discuss the arguments they read for homework and collaboratively decide the 3 arguments for and 3 arguments against their chosen topic. The groups are required to research detailed examples, statistics, and human stories to supplement the information they find on Procon.org. In addition to researching the arguments for and against, the group is also expected to research background information, such as a definition of their topic, a basic history of the issue, and an outline of the current state of the issue.

In period 3, the students start working on designing the slide show for their lectures. In order for all the groups to have the time to conduct their seminars, the students are instructed that their lectures should be no more than 15-minutes long. The students are also given a Google Slides document with a suggested slide structure and advice on how to find powerful images to support the examples from their research.

The next three periods focus on giving the students time to complete the research and slideshows for their lectures. However, as each group member is expected to present equally, in period 4, the students are given advice and useful phrases to deliver their lectures and transition smoothly between speakers. In period 5, advice is given about how to conduct the post-lecture discussions. The students are instructed to ensure that they focus on the discussions on the ideas presented in the lecture and that each member of their discussion group has an equal amount of time to express their thoughts and opinions. To help them gain an understanding of this, the students watch and discuss two video examples of a 'bad' discussion and 'good' discussion prepared by the authors. Period 6 is for the groups to make final touches to their lectures and practice before the seminars.

Periods 7, 8 and 9 are dedicated to the groups conducting their seminars. The seminars are

conducted using an adapted version of the Think-Pair-Share collaborative discussion strategy (Lyman, et al., 1981). In the lecture phase, the audience members are encouraged to listen to the arguments for and against the topic with an open mind and *think* carefully about how strong or weak they feel the arguments are. To help the audience do this, the seminar members of each project group prepare a simple hand out, outlining the main arguments given in the lecture, which the audience is expected to study before the seminar. After the lecture is completed, the audience is split into *pairs* to freely discuss the ideas in the lecture for 5-minutes. This is to allow the audience to organize their thoughts so that they may better express their ideas in the group discussion. During this time, the teacher can give some feedback to the project group on their lecture and remind the members of the key points they should focus on in the group discussion. After the *pair* phase, the audience is split into 3 or 4 larger discussion groups each led by a member of that seminar's project group for about 10-15-minutes. The leaders first encourage their audience to *share* their feelings on the topic and which arguments they found strongest. After this, the discussion leaders guide their groups to talk about the other ideas from the lecture that have yet to be discussed. These discussions are recorded so that they can be qualitatively analyzed in the post seminar report. Finally, at the end of the seminar, the class rejoins as one group and the discussion leaders give a short summary of the ideas from their discussions. This allows the class to see whether there were similarities or differences in thinking among the groups.

After the seminars are completed, the next three periods are dedicated to having the students write up their seminars. Each group must produce a 2000-3000 word academic report with a background, method, results and discussion, conclusion, and a list of references. In period 10, the groups perform a qualitative analysis of the discussions from their seminar. Each member listens to the recording of their discussion and identifies the main themes, as well as any other interesting ideas, with supporting quotes. Then, each member writes a paragraph reporting the results of their analyses (200-300 words each). In period 11, the students write up the background section of their report (800-1200 words), which consists of a summary of their lecture. In period 12, they write an academic method section (200-300 words) where they describe their project group and outline the processes and procedures they used for designing their seminar and analyzing the discussions. They also write a conclusion paragraph where they summarize their issue and summarize the results from the discussions of the audience as a whole (200-300 words).

In period 13, the groups do a peer review of their report with their other group members, where they check each other's paragraphs for structure, content and language using a checklist, and then collaboratively discuss any possible improvements to complete their first draft. The teacher checks their completed drafts, and in period 14, provides feedback and suggestions for their final draft to each group. While the teacher is providing feedback, the other students prepare a simple presentation on the results of the discussions from their reports. In the final period, the students share their presentations with members of the other project groups and reflect on their experiences during the project. The teacher can also use this opportunity to help the students appreciate the myriad of complex tasks they have completed collaboratively with their group mates and reinforce the key principles of PBL.

Reflections

(Ian) This was my fourth time to do this project with an AE class, so I had already had some experience with student-led seminars. Based on experience, I did not give my students a free choice of topics. I sometimes wonder whether it would be better to give the students a freer choice. However, due to time constraints, I have found that it is better to give the students a limited choice of selected topics that; 1) are major world controversies the they could learn more about; and 2) had effective arguments on both sides that the students could research and generate good discussions.

Overall, the students worked very well together. They could assign jobs effectively, created informative presentations, led their discussions well and could generate a 2000-3000 word report collaboratively. It is always interesting to me that when I introduce what the students will be doing over effectively seven weeks of classes, the students often seem to feel that it will be an enormous task. For example, there is often an audible gasp when I introduce the report and tell them that they will have to complete it within 3 weeks. However, when they realize that 2-3000 words split between 4 students is effectively 500-750 words each, they understand that the task is manageable if they work together as a team. This for me is the greatest strength of this project. The project necessitates that they divide the work up between the members, set goals and collaborate; and when the students look back at what they have accomplished at the end of project, the students often comment that they have gained a good appreciation of the power of collaborative learning.

The biggest issue is that the time-frame for completing the project over 7 weeks is quite tight. Therefore, one thing I have considered is expanding the project over all 14 weeks of the semester. This would allow the groups to research the topics more thoroughly and create more informative lectures. Each group could also have a whole class period for each of their seminars, which would allow more time for things like, pre-lecture schema activation activities, post-lecture discussion activities, and a more meaningful summary at the end of the seminar. Finally, a longer time-frame would give more opportunities for project work training activities. The downsides to this idea are that students would not have the opportunity to work with other students in the class throughout the semester, and they would also not be able to do the second project, where students have the chance to develop quantitative analysis skills. However, this is something that I might consider doing in the future.

(Travis) In my context, the group seminar project was conducted in a class with 19 students, all of whom were Business majors. One aspect that sets this class apart from the other classes included in this paper is that it was the highest level Advanced English class in the Business Department. This meant that a large percentage of the students were returnees, i.e., had near native-level English proficiency. This allowed for a more advanced level of difficulty in the implementation of the group seminar project, and a larger affordance for autonomous learning. One example of this was topic selection. Groups were given the opportunity to choose any topic from procon.org, which resulted in some groups selecting more challenging topics, such as Abortion, Universal Basic Income, and Animal Testing. Students were also instructed to conduct thorough background research on their topics, and were required to include many references in their project write-up (at least 10). This increase in autonomy and required background research resulted in project write-ups that varied in their level of complexity and thoroughness.

A number of positive outcomes were observed while conducting the student-led seminar project with the higher-level business students. The most salient outcome was the development of academic skills. As Kavlu (2017) specifies, one goal of PBL is to foster the development of listening and

speaking skills through presentations and group discussions. Students clearly improved their ability to absorb and interpret information while listening to group lectures, as well as increasing their ability to convey both factual information and opinions during the group discussions. Students also built upon the collaborative team-working skills developed in the Spring semester. I could observe, as discussed in Thuan (2018), that the seminar project allowed students to develop these skills while sharing and assimilating knowledge from each other's research. In fact, I believe that the completely student-led nature of the seminars resulted in student interactions that were more purposeful and authentic, and this further facilitated learner collaboration. Finally, students were able to use authentic sources and real-world examples to contextualize seminar topics more skillfully than in the Spring semester.

Although the outcomes of the seminar project were mostly positive, a few issues arose which may be considered typical in PBL. As discussed in Kavlu (2017), some students felt that the workload was not balanced evenly between group members. This was particularly the case with one student who wrote in the seminar reflection that the other members of this group conducted far less research than was fair. This particular group consisted of only three students, while all of the other groups had four, which brings up another issue - unbalanced group sizes. The workload had to be distributed between a smaller number of students, and this likely contributed to the reported feelings of unfairness. Finally, many students reported that the most difficult aspect of the seminar project was being a discussion leader. In future iterations of this project, I would devote more time to developing skills for leading group discussions.

(Anna) Learning environment in my case could be considered favorable for project-based learning due to student number, their major, and educational background. As for the number of participants, the total number of 13 students was divided into 4 seminar groups: 2 groups of 4 and 2 groups of 3. The concise number allowed a more effective distribution of the instructor's attention. Students' major- Liberal Arts-was another beneficial condition. It appeared that along with the mandatory courses, the Liberal Arts students were offered additional electives in Japanese on some of the controversial topics featured in procon.org and appeared to have prior knowledge. As for the nature and educational background of the student population: around 50 percent of the students either had experience of residing and studying overseas or were international students. In that way, the majority of the seminar participants came with a certain number of communicative and academic skills and a high level of language proficiency. That said, in order to guarantee equal conditions for another 50 percent of the class with a lower level of communicative skills, the final choices of topics and group mates was left to the instructor.

As for the learning outcomes, the major part can be confidentially determined as positive and beneficial in terms of academic skills enhancement, collaboration, and autonomy. As for the academic skills, I have noticed that seminar structure provided a rare opportunity for the students to gain an authentic academic experience of a full research cycle starting with the preparation stages that involved critical thinking of the for and against arguments, presenting, leading seminars' discussions, and more advanced stages of data collection, analysis, and a full-length research paper as an outcome. On a different note, producing a 3000 words-long academic paper can be considered an intellectual challenge and bring a sense of accomplishment. As for the social and equally valuable aspect of collaboration, student-centered autonomous group work served as a motivation enhancer. The students demonstrated a more positive attitude compared to the spring semester that was conducted in a teacher-centered way. Demotivated by the online classes during the spring semester, the participants demonstrated more willingness to communicate by actively resolving any communicative

issues: addressing the instructor for support, openly reflecting on the working process, and negotiating the workload with the group.

Although most of the feedback appeared to be generally satisfying, some considerations should be made for the future projects. Difficulties of time management and inefficient communication arose due to the fact that the class was offered online. As for the communication and collaboration, some participants were not as technically efficient and cooperative as a result. That led to falling behind the schedule of submissions, time constraints and extra pressure on more skilled group members to meet the deadlines. In spite of an abundant amount of time dedicated in every session for group assignments and planning, the online factor appears as a certain obstacle. Even if the course would not be offered in an online format, group dynamics and communication should be closely monitored.

Conclusion and suggestions for future improvement

Project-based learning is a progressing development in education that suggests tremendous benefits in terms of learner development: mastering 21st-century academic skills, autonomy, collaboration is a valuable learning experience an educator can only dream of. In this paper, the authors determined to investigate the accuracy of the statements above in an attempt to weigh up the effectiveness of the project -based learning in our distinguished contexts using a student-led seminar format. We observed that overall student-led seminars followed by a full-length research paper had conspicuous benefits: sensible and autonomous development of public speaking, academic writing, critical listening and thinking, which also led to more inconspicuous enhancement of linguistic competence and confidence and team building skills. On the other hand, the students were forced to cooperate under unusual circumstances and some demonstrated a slight lack of social skills such as negotiation and problem-solving. Another aspect for future improvement is a more balanced time frame that might relieve the pressure of meeting relatively short deadlines and allow leeway for problem-shooting if any group dynamic issues arise. We hope to continue this reflective practice by examining and providing practical solutions for the issues above to make project-based learning more meaningful and accessible in a wider range of elective and mandatory courses.

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