

Student-generated research in the university EAP classroom

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This paper describes, step-by-step, the processes involved in student-generated research projects culminating in poster presentations which are assigned to intermediate- and advanced-level EAP students of an English-medium Japanese university. As part of a multi-skills, content-based course which utilizes authentic texts, the task-focused research projects are designed to enhance language and academic skills in a meaningful manner. The project for advanced learners utilizes sociological research methods as the organizing principle for the various tasks performed. Some modifications are made for the intermediate students where the emphasis is on preparing for the poster presentation. The research projects not only provide numerous opportunities for enhancing linguistic and academic skills but also encourage the development of learning strategies and learner autonomy. Students have praised the projects for having provided them with meaningful practices and having helped them develop confidence in their ability to use English in front of an audience.

このレポートでは、英語を媒体とした授業を行う日本の大学で、中級・上級レベルのEAP(英語集中課程)学生に課された学生主導の研究プロジェクトに係わる過程が順を追って説明されている。この研究プロジェクトは最終的にポスター・プレゼンテーションで終結することになっている。日本人のために書き直されていない、本物の教科書を使用し、多技能を要し、内容中心の科目の一環として、課題中心とした研究プロジェクトを実施するが、その目的は言語力と学術的能力を有意義な形で高めることにある。上級学習者のプロジェクトでは、様々な課題を成し遂げるにあたっての組織原理として社会学的研究手法が用いられている。ポスター・プレゼンテーションの準備を中心とする中級レベルの学生の場合は多少の修正がなされた。研究プロジェクトは言語面と学業面の力を伸ばすための多様な機会を提供するだけでなく、学習戦略と自立学習を促す上でも役立つ。このプロジェクトにより有意義な実践ができたこと、聴衆の前で英語を話すことに自信を深めることができたことを理由に、学生はこのプロジェクトを高く評価してくれている。

Research as a classroom activity is not normally attempted in a university English for Academic Purposes (EAP) program with language learners whose entry-level English language skills are in the 400+ to 500+ TOEFL range. However, the writers of this paper, who teach within the EAP program of a Japanese university where English is the main language of instruction for all courses, have found it to be very effective. In parallel courses in levels two and three of the three-level EAP program, students are assigned basic research projects in which they complete a series of steps involving specific

tasks with content that is academic. For students, the explicit final goal of these projects is to present their findings in a program-wide poster presentation session. Equally important is the unstated objective of their instructors, which matches Stoller's explanation of the benefits of project work: "By integrating project work into content-based classrooms, educators create vibrant learning environments that require active student involvement, stimulate higher-level thinking skills, and give students responsibility for their own learning" (2002). In this paper, we offer a) a brief rationale for the use of research projects within content-based EAP classrooms, b) a description of each step in the research process at these two distinct levels within our program, and c) a discussion of student and instructor impressions of the effectiveness of research projects as a comprehensive language learning activity.

Program overview

Akita International University (AIU) is an English-language medium university in Japan that requires its students to study for one year abroad at a partner school in an English language environment and to achieve a TOEFL score of 600 by the time of graduation. The (AIU) EAP program, out of which all Japanese students must pass before reaching their post EAP, English-only coursework, consists of three levels. As a result of entry-level TOEFL scores, students are placed into one of these three levels. Student-generated research projects have been utilized in the highest two levels of the EAP program within a multi-skills course known as "Core," which meets six hours a week during a 7.5 week term. The Core class, which is complemented at each level

by other language classes (writing, academic listening, independent learning, and possibly computer basics and oral communication), is an integrated skills course because all language skills are emphasized within one course. Core classes also typically use authentic texts, and are content-based, meaning the focus of the text reading is on academic content rather than language and language-related issues (Oxford, 2001). Many Core class subjects naturally focus on social science themes, which necessarily involve consideration of attitudes and behaviors. In this way they are perfect springboards for student-generated research projects.

Rationale for the research projects

The unique demands that a Japanese university with English as the main medium of instruction places on students require an approach to preparatory-program language training that will help them approximate the academic experiences they will encounter in their upcoming coursework. Current literature strongly supports the content-based approach to EAP instruction that many instructors in the AIU EAP program have adopted (Grabe & Stoller, 1997; Larsen-Freeman, 2000; Snow, 2001). That content-based instruction (CBI) can provide learners at various levels with frequent and salient input and give them an opportunity to create meaningful output is also well established in the literature (Ellis, 2003; Nunan, 1989; Oxford, 2001). Project work, with a focus on a series of content-based tasks, is an ideally suited means of "integrating language and content learning" (Stoller, 2002). To that end, Stoller has described project work as a "natural extension of content-based instruction."

In the light of such clear rationale, task-focused content-

based research projects would appear to be a perfect vehicle for students not only to hone their language skills, but also to get practice in relevant academic skills involving critical thinking and research techniques. Research projects can encourage students to develop an understanding of concepts and issues; to broaden their knowledge through intensive and extensive reading, classroom discussions, and lectures; and to synthesize and apply information within their own writing and speaking activities. Work on the tasks required by the research project assignments gives students within AIU Core classes a range of meaningful opportunities for developing their overall language proficiency and academic English skills.

A research project for advanced learners (Core 3)

Students in the advanced EAP level, Core 3, enter the university with a paper-based TOEFL score of 480 or above. The Core class at this level uses as its main course reading, *Sociology: The Study of Human Relationships*, which is a high school textbook. Because the principle goal of this class is to facilitate students' ability to deal with academic readings and university-style assignments while at the same time enhancing their language skills, the course instructor requires them to work intensively with segments from selected chapters of the text during the first several weeks of the class, utilizing SQ3R and other learner strategies. Discussions and in-class activities generally take place in small groups, with the teacher acting mainly as a facilitator. In this way, students begin enhancing their reading comprehension abilities and developing a "sociological imagination," the ability to see the connection between

themselves and the social world they inhabit (Thomas, 2003). At the same time, they become versed in sociological content, studying in depth areas such as socialization, culture and cultural diversity, race and ethnicity, and social structure.

Midway through the course, Core 3 students are given an explanation of the course research project and are assigned an auxiliary textbook chapter entitled "Sociological Research Methods," which details, step-by-step, the process for basic social research as follows (Thomas, 2003):

1. Define the problem: select a topic
2. Review the literature
3. Develop a research question and a working hypothesis
4. Choose a research design (interviews or questionnaires)
5. Conduct field research by collecting data
6. Analyze the data
7. Present conclusions (orally and in writing)

Working with this particular unit in much the same way as they had with others, the students develop a basic understanding of sociological research, which will be strengthened by their own upcoming research project. The explicit goal of the project is for each student to choose a sociological topic and complete all seven steps as stated above.

The project first requires a small group, or pair, of students to work together and select a chapter from the textbook, the most popular being "The Adolescent in Society," "Gender,"

and “Deviance and Social Control.” Next, the group studies the chapter while taking notes, working on vocabulary study cards, doing a short summary assignment, and eventually developing a focus for further library or Internet research.

As a follow up activity to the textbook work, students are required to find at least four related outside readings (i.e., to briefly review the literature), to provide bibliographical information for each, and eventually to summarize at least two of them. At the same time, while taking into consideration the various sub-topics explored in outside readings, the group is now required to develop a general research question that focuses on attitudes or opinions, with the understanding that a hypothetical answer to the research question might be found through a survey of the local university community.

First draft examples of research questions are evaluated in larger classroom groups with regard to content and language use. In discussions of content, issues such as appropriateness of topics, establishing limits on topics, and other aspects of planning can be raised. With regard to language use, a discussion of research questions provides an opportunity to review grammatically correct question forms. Second draft examples of group research questions can be discussed and assessed by working groups or by the class at large. Several examples of “final draft” student-generated research questions are:

1. Do students (at AIU) with religious beliefs have doubts about their beliefs?
2. Do people at AIU believe that understanding terrorism will make it avoidable?

3. What is the attitude of our university’s students toward intercultural romantic relationships?
4. How do university students feel about solving problems of world poverty?
5. Do students at our school understand the negative effects of sexual activity?

After completing a general research question, each learner group develops a corresponding working hypothesis. In the same way that each learner group discusses the content and language use of first draft research questions, they also assess the working hypotheses, focusing on characteristics such as the focus of the content, the appropriateness of any quantifying adverbs and the effectiveness of other forms of language use. Examples of students’ working hypotheses that correspond to the questions delineated above are:

1. Students here with religious beliefs do not have doubts in their beliefs.
2. Most people at AIU believe that understanding terrorism will NOT make it avoidable.
3. Most students at our university have positive views toward intercultural romantic relationships.
4. Most university students feel helpless about solving problems of poverty.
5. Students at our school do not understand the negative effects of sexual activity.

Next, using its working hypothesis as a guide, each group has to decide on a research design. Creating an acceptable survey instrument and developing questions for either

interviews or questionnaires is encouraged. At the same time, individual students are asked to revisit the section in the textbook that underscores the advantages and disadvantages of each instrument before the group makes a final decision. At this point, this instructor also mentions how particular topics, especially those that might be considered taboo or too personal—one's political persuasion, prior experience with substance use, or previous sexual experience, for example—might require that survey respondents answer anonymously, thus necessitating the use of questionnaires rather than interviews.

While contemplating various research design options, the groups are also asked to consider other aspects of their research process, such as the importance of maintaining objectivity and avoiding research instrument bias, the part played by clarity and neatness in writing survey directions and preparing questionnaires, and finally, the value of courtesy in setting up interviews or distributing questionnaires. At this time, students can also be given supplemental readings that illustrate any of these points. For example, the instructor might provide them with short written descriptions of American news service polls on contemporary social issues and/or articles extolling the advantages of random sampling.

After choosing a research design, Core 3 groups begin creating their survey instruments, whether interview questions or written questionnaires. When the first drafts have been completed, each group exchanges its survey with another, and using what they have learned about survey design, provides written feedback regarding that and the grammatical correctness of survey questions.

Once each group has received input from a partner group and has had a chance to correct survey problems, they can begin distributing questionnaires or conducting interviews (i.e., collecting data). At this stage in the process, the instructor might find it advisable to review the importance of using the appropriate technology (i.e., an iPod or an MD recorder) during an interview and the value of careful note-taking, as record-keeping strategies. It might also be important to remind the novice researchers that protocol dictates discretion in discussing the origins and content of the research data and in drawing premature conclusions. In short, careful handling and analysis of the incoming research data is advisable.

As groups complete the data collection stage and begin to review the collected original source information (i.e., analyze their data), students are encouraged to remember their working hypotheses. It is in the context of that hypothesis and the original research question that the data becomes relevant. The students are also reminded that since they need to present their findings orally and in writing to be scrutinized by others, careful tabulation of the survey responses is essential.

The final stage of the research process described here is the poster presentation session, in which students present their survey findings within the context of what they have synthesized from their reading research (i.e., present conclusions). In the poster session, coordinated within the entire EAP program, learners from various levels and different classes congregate in the school auditorium on a prearranged day to participate as both presenters and members of the listening audience (see Appendix: The Poster

Presentation Session). The instructor might augment that session with a further course requirement: to describe the research process in a final project paper.

Throughout the research project process, in all of the classroom activities and related group efforts outside of class, it is the tasks that constitute the real organizing principle, more so than the particular content that each learner decides to study. As Carson, Taylor, and Fredella (1997) state, "...it is the task that focuses the way that language learners will read/ write/ listen/ speak about content." With this principle in mind, any EAP instructor can utilize the research process with a wide variety of academic disciplines and at various language skill levels to achieve the same results.

A research project for intermediate/upper-intermediate students (Core 2)

In our experience, Core 2 students (in the 460 to 480 TOEFL range) also have the language and academic skills to undertake a research project, with some modifications. One difference from the Core 3 class is that the research assignment for Core 2 is given with an emphasis on preparing for the final poster presentation, rather than on being formally introduced to the steps of academic research. In this way, the Core 2 group follows the process implicitly. However, as with the advanced Core class, the topics for the poster presentation projects at Core 2 are decided by the students themselves, with each project focus related in some way to the course theme. In addition, learners at this level understand that their final presentations are expected to be based on some sort of reading study and synthesis, not on

the collection of data and sharing of opinions. Instructors at Core 2 do not recommend data gathering via surveys. Also in contrast to Core 3, instructors in Core 2 provide pertinent reading materials for those students who need them. Thus, in a number of ways, the Core 2 research process is a simplified version of the project requirements at the subsequent level.

In the Core 2 classes, the assignment for student-generated research follows these eight steps:

1. Assignment overview: A brief description of what a poster presentation entails is given to Core 2 students, with examples of readings and some sample posters.
2. Discussion of details: The class is told that presentations can take the form of poster presentations, PowerPoint presentations, or card presentations (cards placed on a board to give the effect of a poster). About 90% of the presentations given tend to be poster-based. At this stage, students are also encouraged to consider strategies and devices that can be utilized on presentation day, such as the use of short dramatic skits, "stage" props, and rhetoric (engaging the audience with questions).
3. Sample presentations: These can be presented live by the instructor or by presenters from a previous semester, or they can be demonstrated via a video of presenters from a previous semester.
4. First drafts: For these drafts, an informal description of each student's presentation topic is required.

5. In-class practice presentations
6. Final drafts
7. Poster presentations (see Appendix: The Poster Presentation Session)
8. Follow up work: This involves time spent in a subsequent class with either the instructor and students discussing presentation results or the students presenting once again for class members.

In our experience, the main motivator for the typical Core 2 student is the incentive to make a good impression during their poster presentation, i.e., appear well-prepared in front of their peers and explain a topic clearly and sensibly in English.

Interestingly, the poster presentation session has become a forum for the Core 2 and Core 3 students to interact less formally than they might in a classroom, yet with an academic purpose. For this project, the energy and enthusiasm that they bring to the auditorium on poster presentation day seem as much indicators of the assignment's success as the subsequent highly positive reactions that students share on the presentation surveys filled out after the research project.

Conclusion

By the end of the research projects described above, students have worked in some depth with academic subject matter through reading, listening, reflection, and oral and written discussion. Moreover, they have collected information that in some way answers their research questions; they have

summarized, organized, and interpreted that information; they have developed and given a series of presentations to others in which they have explained what they have discovered; and they have also listened to their peers present, all in English. Higher level students have gone through this process explicitly, while lower level students have experienced it more implicitly.

For students, these EAP research projects clearly satisfy a larger three-phase learning process outlined by Jones, Palincsar, Ogle, and Carr (1987) in their book *Strategic Teaching and Learning*:

1. Preparing for learning: identifying a topic of interest, developing a coherent research question, locating possible resources, becoming acquainted with the background information of a topic area and the basic how-to of conducting research
2. Processing: reading collected materials, creating organized notes of useful information, outlining a flow of ideas with a central focus, supported and informed by various kinds of information in notes
3. Consolidating/extending: writing essays based on notes and other information, creating and giving a presentation of the substance of the essay in the form of a poster presentation, and reacting to/evaluating one's own work and that of classmates

Equally pertinent threads running through these projects are the use of authentic texts, an integrated skills approach to teaching and learning, the teaching and development of academic study skills and learning strategies, the development of learner autonomy, and the use of a public

forum for students to present the findings of their research to their peers. Though not covered in detail in this paper, all of these aspects demonstrate the value of the EAP research projects offered here.

The writers of this paper have found that student-generated research projects meet their curricular goals of providing students with highly integrated, task- and content-based communicative activities. Projects such as these give students a solid foundation for continuing their academic work.

The vast majority of students who have participated in these research projects consistently praise the experience for giving them meaningful practice in a variety of academic and language skills, and for helping them develop confidence in their ability to use English in front of an audience. In fact, when 65 students rated the effectiveness of this project on a scale of 1-4 (with 4 being “great,” 3 being “good,” 2 being “not good,” and 1 being “worthless”), 63 rated it “great,” two students rated it “good,” and no one rated it below that. These results demonstrate the wide appeal that academic research in English can have to non-native speakers of English in an EAP program.

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Appendix: The poster presentation session

1. Presentation boards and chairs, computers, and projectors are arranged to accommodate up to 20 concurrent poster presentations in the auditorium. In some cases, more poster presentation stations are set up in neighboring classrooms, or even in the hallway outside the auditorium.
2. Students (which might include pairs of students) display their posters and present their research results to an audience of two to eight listeners for an eight minute presentation and short question-answer period. With many presentations happening at once, the value of voice projection becomes evident.

3. After the eight minute presentation, audience members reflect on the presentation and fill out an evaluation form.
4. Audience members then rotate, and presenters present a second, then a third time, each for six to eight minutes.
5. After the first 30 minute “wave” presenters take down their posters, opening space for the next series of presenters.
6. The entire process involves three or four such waves resulting in an event that lasts approximately 2 to 3 hours.