Provost’s Learning Innovations Grant for Faculty
Request for Full Proposal
2008-2009

Project Title:

Applicant(s):

<table>
<thead>
<tr>
<th>Name</th>
<th>Hiroko Yamashita</th>
<th>Telephone</th>
<th>5-6074</th>
</tr>
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<tbody>
<tr>
<td>Dept.</td>
<td>Department of Foreign Languages</td>
<td>College</td>
<td>College of Liberal Arts</td>
</tr>
<tr>
<td>Name</td>
<td>Stephen Aldersley</td>
<td>Telephone</td>
<td>5-6560</td>
</tr>
<tr>
<td>Dept.</td>
<td>Department of Liberal Studies</td>
<td>College</td>
<td>NTID</td>
</tr>
<tr>
<td>Name</td>
<td>Yukiko Maru</td>
<td>Telephone</td>
<td>5-4558</td>
</tr>
<tr>
<td>Dept.</td>
<td>Department of Foreign Languages</td>
<td>College</td>
<td>College of Liberal Arts</td>
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1. Title

Online technology in non-alphabet-based foreign language classrooms: Integration of deaf and hearing students, and enhancement of their writing skills in the target language.

Summary

This project will investigate the effectiveness of teaching mixed sections of deaf and hearing students in a foreign language classroom using laptop computing and online technology. If successful, this new pedagogical approach will improve the ability of both hearing and deaf students to accurately communicate in written language using foreign characters (Hiragana, Katakana, and Kanji) and thereby enhance their ability to progress through the Japanese language curriculum.

2. Targeted population

The directly targeted population is from forty to sixty undergraduate students, including both hearing and deaf students, taking Beginning Japanese (Beginning I, II, and/or III) offered by the Department of Foreign Languages. They come from all colleges of RIT. Typically they include sophomores, juniors, and seniors, and most are minoring in Japanese.

We anticipate that the number of students eventually benefiting from the research findings and teaching methodology will be from seven to eight hundred RIT students who take foreign languages annually. Potentially, the results of the program may benefit students in all foreign language classrooms across the United States.

3. Is this for a current course or new course?

This project is for current courses (Beginning Japanese I, II, and/or III)

4. Anticipated impact on teaching and/or learning

Area of needs

At RIT, all foreign languages use the target language as the main means of communication. This is pronounced at the beginning level, which has the largest group of learners. RIT is unique in the sense that both hearing and deaf students study foreign languages in the same classroom.

However, because current foreign language teaching focuses primarily on the use of spoken language in the target language, there are two areas that need to be addressed. The first is that there are limited opportunities for deaf students to produce sentences and to interact with hearing students in class. Currently, deaf students in non-western languages like Japanese typically read notes taken by a note-taker during class on a sheet of paper or on a computer screen. In non-western language classes, this system has been found to be more effective than using a bilingual ASL interpreter. (Even if the interpreter is proficient in the target language, it does not help the student when the target language is translated into ASL – and finger-spelling, which can be used in Roman alphabet-based languages, does not work when the language does not use the Roman alphabet.) However, even under this system, for much of the time, deaf students are disconnected from the main classroom activities.

The second area that needs to be addressed is that the opportunity for written production and getting immediate feedback on it is limited in the classroom. Both hearing and deaf students practice writing mostly as homework only, which results in their not getting immediate feedback on spelling or character
errors. In non-alphabet-based languages like Japanese and Chinese, in which there are two to three thousand foreign characters to master, learning foreign characters by writing should be part of a daily practice.

Proposed activity and expected impact on learning

In order to improve these two areas, we are proposing a productive use of online computing technology in the classroom. It is proposed that one laptop be shared by two students, paring up a deaf student with a hearing student, for most production activities in every class. These include such activities as dialogue performance, drill practices (to practice verb forms, etc.) and communicative activities, like mini-skits. In addition to spoken performance, students will type dialogue lines in the target language in a chat-like format, creating dialogues that are spelled out. While a traditional note-taker can convey the flow of instruction, pairs of students (a deaf student will always be paired with a hearing student) working on one laptop can actually practice real conversation. All hearing and deaf students' written dialogues and other work will be collected and graded in a uniform manner. Furthermore, online connection between laptops, connected by Microsoft Onenote, will enable more than three students to form a group to communicate within the classroom. We will try this method in at least two different Japanese courses taught by Yamashita or Maru, over four quarters, targeting the classes in which (a) deaf student(s) is/are enrolled.

This approach will also involve reorganizing activities in Beginning I, II, and/or III Japanese classrooms. Traditional instruction will be re-examined and revised to allow effective integration of laptop for written activities. Assuming meaningful results of the project, the methodology should be easily transferable to other non-alphabet languages like Chinese, as well as to alphabet-based, foreign languages.

In the current proposal, funding for purchasing four computers out of ten (to cover twenty students) is requested, considering the appropriate size of the requested budget. It is planned that two additional computers will be purchased by NTID and College of Liberal Arts (see the letter of support from Dr. Chris Licata, Associate Vice President of Academic Affairs, NTIC, and Dr. Glenn Kist, Interim Dean, College of Liberal Arts). These six new laptop computers will allow internet connections and will make paring within the classroom with each other, reaching to twelve students. The number of deaf students in one class is typically under five in a foreign language class, and they will always be assigned to these new computers. Additionally, four used laptop computers with no internet connections will be borrowed from the Foreign Language Technology Center and the Department of Foreign Languages. These four computers will be used with eight hearing students that are paired side-by-side. If this method is successful, it is our intention to ask the College of Liberal Arts to supply more new laptops in the future.

5. Impact on student success

a. Deaf students will have increased opportunities to engage in production activities such as dialogue performance, drill practices, and conversation compositions during the class, which will facilitate their learning of the target language.

b. Hearing students will have increased opportunities to confirm Japanese characters and grammar forms visually throughout class meetings. This will potentially lead to increased accuracy in spelling and generation of foreign characters such as Kanji (Chinese characters) and two sets of phonograms (Hiragana and Katakana).

c. The effective use of online chat technology changes the dynamics of student interaction, especially between hearing and deaf students. With this method, the current separation between the two groups of deaf and hearing students will be eliminated as all students are seamlessly integrated in production activities in all classes. This will potentially lead to building rapport within the classroom, which will
further facilitate student learning.

6. Measuring the impact, venue for the report of the findings, and the content to be shared in a faculty forum

a. At intervals during the quarter, surveys will be given to both deaf and hearing students to monitor their opinions of this new technique.

b. Instructors will keep a log of instruction to document the length of interaction of two groups, and the type of activities as well as their effectiveness.

c. Spelling accuracy of this group will be compared with hearing students in equivalent course sections to measure the effectiveness of written activities on accurate spelling.

d. The ultimate test of the effectiveness of this approach will be successful completion of each sequential course by deaf as well as hearing students. Student pass rates will be compared to historical pass rates. We will also look at the number of sequential courses that individual students take compared to historical patterns. We will monitor the progress of the deaf students in particular.

e. The methodology developed in Japanese should be easily transferable to other non-alphabet languages like Chinese, as well as to alphabet-based foreign languages. The method developed from this project will be presented to the faculty at local forum.

7. Rationale for your project

a. The reason it is not part of regular college business

This project involves the use of laptops, one for each pair of two students. This project is possible only when the laptop computers are prepared, which is beyond the computer assignment for any class in the college.

b. The relevance of the project to required cluster, college, and/or department competencies

The Department of Foreign Languages currently has several languages in which deaf students study together with hearing students. It is imperative that more effective methodologies be established in order to benefit all the students taking foreign languages at RIT. Deaf students are attracted to foreign language electives and minors in increasing numbers and taking all nine courses of a foreign language (at the Beginning, Intermediate and Advanced levels) is a requirement for students enrolled in the College’s International Studies degree program.

c. How the project is relevant to other faculty and method of transfer of the success to other faculty

Faculty members in the Department of Foreign Languages have considerable interest in learning how best to teach foreign languages to deaf students. This interest has already led to a new initiative, “the Forum for Teaching Foreign Languages to Deaf Students,” which is beginning in Spring, 20073. This is an informal forum for instructors who have an interest in learning to improve their teaching of deaf students. Results of the project will be shared with Forum members, and the technique will also be conveyed to all interested faculty members, for the purpose of dissemination within the larger RIT community. Results will also be presented at national conferences on language pedagogy, such as at the annual meeting of the American Council on Teaching Foreign Languages (ACTFL).
d. Relevant credentials, experience of involved faculty/staff

Hiroko Yamashita has a Ph.D. (the Ohio State University) in East Asian Language/Linguistics, with specialization in Psycholinguistics, Syntax, and Pragmatics. She has twenty-two years of experience in teaching Japanese, and over fourteen years of curriculum design and coordinating a Japanese language program. Her research in psycholinguistics focuses on the process of comprehension and production of native and foreign languages, specializing in the Japanese language. She has taught approximately ten courses in Japanese with deaf and hearing students at RIT. Together with Yukiko Maru (co-researcher), she has been working on improving the methods of teaching Japanese to deaf students. She presented a preliminary study of the use of note taker in a Japanese classroom in 2007, at the Annual Meeting of the Association of Teachers of Japanese, with Professor Maru.

Stephen Aldersley has an Ed.D in Higher Education Administration from the University of Rochester. His undergraduate degree was in Linguistics and Regional Studies at the University of Surrey, UK, where he studied German and Mandarin Chinese. He has also studied French and Hebrew. He has been on the NTID faculty since 1980 and currently chairs the NTID Department of Liberal Studies, whose faculty are responsible both for NTID’s developmental English program and also for teaching and providing tutoring in many CLA disciplines. His interest in this project stems from his own background in foreign languages as well as his immediate responsibility for helping ensure maximum access and academic success of NTID-supported students in all CLA courses. He has reviewed the field of foreign language instruction with deaf students and has found that very little work has been done, or indeed is being done, to make this discipline truly accessible for these students.

Yukiko Maru has an M.A. in Second Language Acquisition (University of Illinois at Urbana-Champaign). She has ten years of teaching Japanese at college level. She also has experience in teaching a class with deaf students at RIT. Together with Hiroko Yamashita (co-researcher), she has been working on improving the methods of teaching Japanese to deaf students. She presented a preliminary study of the use of note taker in a Japanese classroom in 2007, at the Annual Meeting of the Association of Teachers of Japanese, with Yamashita.

e. The innovation in the discipline

There has been extremely limited study of the pedagogy of teaching foreign languages to deaf students. As far as we are aware, there has been no study of teaching foreign languages to a mixed group of deaf and hearing students. In that sense, the project is ground-breaking from every point of view.

8. Timetable

20081 – 20093 This is designed as a two-year project, to begin in Fall 20081.

• 20081: initial revision of teaching methods and curriculum, purchasing and preparing of the laptops, preparation of surveys.

• 20082, 20083, 20091, 20092: teaching classes, collecting data in the class in which deaf students are enrolled.

• 20092-20093: data analysis, preparation of the final report.