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THE COMPREHENSIVE PROGRAM  
FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION

OMB NO.: 1840-0514  
Form Expires: 8/31/00

TITLE PAGE

Check one: Preliminary Proposal  Final Proposal

This Application should be sent to:  
No. 84.116A  
U.S. Department of Education  
Application Control Center  
Room 3633  
Washington, D.C. 20202-4725

1. Application Number

2. D-U-N-S Number

3. Project Director (Name and Complete Mailing Address)

Portland State University

Department of Foreign Languages & Literatures

William B. Fischer, Ph. D.

4. Institutional Information

Highest Degree Awarded:

Two-year

Four-year

Graduate

Doctorate

Non-degree granting

Other

Type:

Public

Private

P.O. Box 751, Portland, OR 97207-751  
tel (503) 725-5285 FAX (503) 725-5276  
offices: 393 & 451-D Neuberger Hall  
724 SW Harrison (at Broadway)  
e-mail william@nh1.nh.pdx.edu  
http://www-adm.pdx.edu/user/fll/Fischer/

5. Federal Funds Requested:

1st Year only 75,000  
2nd Year (if applicable) 52,000  
3rd Year (if applicable) 77,000  
Total Amount: throughout 10,000  
214,000

6. Duration of Project:

Starting Date 9/98  
Ending Date 7/2000  
Total No. of Months 34

7. Proposal Title

Effectiveness of Computer-Assisted Language Learning in Standards- /  
Proficiency-Based Second-Language Programs

8. Brief Abstract of Proposal: (DO NOT LEAVE THIS BLANK)

Investigate the effects of instructional technology on student performance in second-language programs that are being realigned to articulate with the new standards- or proficiency-based curriculum. Collection and publication of the research data; implementation of the technological resources used in instruction; teacher-training courses based on the research activities.

9. Legal Applicant (Name & Complete Mailing Address)

Portland State University  
P.O. 751  
Portland, OR 97207-0751

10. Population Directly Benefiting from the Project

post-secondary language students & teachers

Congressional District(s) of the Applicant Institution

11. Certification by Authorizing Official

The applicant certifies to the best of his/her knowledge and belief that the data in this application are true and correct, that the filing of the application has been duly authorized by the governing body of the applicant, and that the applicant will comply with the attached assurances if assistance is approved.

Print Name James R. Pratt

Title Assoc. V- Provost, Research

Phone 503-725-3419

Signature [Signature]

Date 97.10.24

# **Effectiveness of Computer-Assisted Language Learning in Standards- / Proficiency-Based Second-Language Programs**

## **Overview**

Our *objective* is to investigate the effects of multi-media presentations and internet activities on student accomplishment in second-language programs which are being realigned to harmonize and articulate with the new standards- or proficiency-based curriculum that has been adopted for K-12 education in Oregon and made the basis of admission to institutions in the State System of Higher Education. *Activities* to be conducted by the group fall into three categories: 1) collection and evaluation of the research data to compare groups of learners who use no, some, or more technological resources but whose instructional programs are otherwise identical (same textbook, etc.); 2) management of the large-enrollment language courses which are to serve as the source of data; 3) implementation of the technological resources used in instruction. Projected *outcomes* of the research again fall into three categories: 1) dissemination of the research itself in academic publications; 2) acquisition of information about learner activities and a corpus of assessment results that will permit close observation of learner advancement and its relation to technological resources; 3) development of junior faculty and graduate students, with an eye toward expanding and strengthening PSU teacher education programs in second languages and applied linguistics.

## **Proposed activities**

Our main activity is to observe, measure and evaluate the use of technology-based instructional materials in second-language programs whose chief purpose is the teaching of languages according to the principles and methods that have

been adopted by the state of Oregon for K-12 education, have been defined by the State Board of Higher Education as the criteria for admission to post-secondary institutions, and thus, presumably, should serve as the basis for second-language instruction within post-secondary programs. Limited use in first-year German of technology and instructional materials equivalent to those we propose to use in our research has already suggested that our larger-scale investigation will be very informative. During the next several years, beginning in Fall of 1998, we will introduce and increase the systematic use of technology-based instructional materials in selected sections of large-enrollment lower-level language courses, primarily first-year Spanish (400+ students/ quarter). Other sections of the same courses, the control groups, will use either none or less of the several technological resources, but will be taught otherwise with the same goals and pedagogical methods, the same or similar instructors, and non-technological resources.

The linguistic proficiency achieved by all learners will be measured by the standard proficiency tests and also by the assessment tools that have just been developed for evaluating the Oregon CIM and PASS and their related benchmark levels. Each student will be tested several times a quarter in several language skills. Control assessments will be done by independent outside testers. We will also investigate the students' educational backgrounds, maintain electronic records of their technology use, and solicit their subjective response to the technology and the language pedagogy. It is important to note that in our discipline significant progress in learning can be made in a relatively short time and can be quantified readily. We are proposing to conduct our research on first-year language programs not just because they are large enough to produce reliable results, but also because the language proficiency that can be achieved in the first year corresponds to that which will be demanded of K-12 students

qualifying for the CIM and for PASS (though in programs that will likely take several years if begun in high school, and even longer if the teaching is not conducted properly). Thus the initial time-span between initiation of research and obtaining useful data would be about one year, with each year thereafter yielding more longitudinal data from the initial learners, expansion of similar data from new cohorts of learners, and new kinds of data as additional technology is introduced. We propose a three-year research period that is most active in the first two years, so that any awkwardness in the first year can be offset by a second year where the new course runs more smoothly and thus yields more meaningful research results.

A particularly noteworthy feature of our project, one which will be supported, though only peripherally, by the research funding, is that *all* the instructional materials, both technological and conventional, used in the language courses in which the research is to be conducted have been or will be created by the research team itself. The reason is not merely that we would not have been able to advance our proposal had we not already developed the materials and gained initial classroom experience with them. If we were attempting to shift materials produced elsewhere to technology-based instruction we would encounter problems not only of logistics and copyright, but also of pedagogy, since as yet very few genuinely proficiency-based language textbooks have been produced by conventional publishers. Furthermore, we have observed that attempts to use technology-based instructional materials often founder because students regard them as peripheral or irrelevant content and activities imposed above and beyond the "real" content of the course. Our materials bypass those restrictions and shortcomings: we will offer both the experimental and the control groups the *same* content, taught from the *same* basic pedagogical principles, and with the *same* stated goals and assessment standards. All that the groups will differ in

is that the mode of delivery for some will be largely technological, and for some not. Thus we regard the expanded development and maintenance of the technological resources as a necessary part of the experimental set-up — though it will also be a valuable by-product of the research.

Since we expect our research to yield significant results in both knowledge and instructional resources, we have built into it a teacher-training component. Beginning in the second year of the project, we will offer regular credit courses and shorter workshops to a regional audience of in-service and pre-service teachers.

### **Support for graduate education and junior faculty**

Our project aims to support graduate education in three ways, ranging from immediate through mid-length to long-term. It provides for participation of junior faculty, for release-time replacement by lecturers, and for graduate assistants. Junior faculty are to be supported not only for what they will produce in the way of instructional materials and academic publications, but also for what they can contribute subsequently as instructors of teacher-training courses in our graduate programs. Release-time lecturers will be selected from colleagues and current or former graduate students who are familiar with our graduate programs and who will likely be active in the region for some time to come as post-secondary instructors. Graduate assistants will be active both as research “menials” who will nonetheless gain much of value from such work, and as junior-junior colleagues who will be receiving valuable pedagogical and technological training. As such they will be part of a larger group, the teachers of second languages who will be trained either in the project itself or by participation in the teacher education courses which will be a natural offshoot of the project.

## **Estimated budget: \$214,000 over three years**

Year 1: \$75,000 (\$50,000 for 1/3 FTE released time each for coordinator/developer, supervisor of language program, and research designer to get project underway; \$25,000 for research assistants)

Year 2: \$52,000 (\$25,000 for 1/6 FTE released time each for coordinator/developer, supervisor of language program, and research designer; \$17,000 for 1/3 FTE faculty to teach 3 technology courses and workshops; \$5000 for research assistants; \$5000 for independent assessors)

Year 3: \$77,000 (\$50,000 for 1/3 FTE released time each for coordinator/developer, supervisor of language program, and research designer to process research for publication; \$17,000 for 1/3 FTE faculty to teach 3 technology courses and workshops; \$5000 for research assistants; \$5000 for independent assessors)

Supplies (CD-ROM blanks, videotape for assessments, copying, etc.) throughout: \$10,000