

FY2008 Learning Technologies Grants Proposal
(COVER PAGE)

Project Information

**Computer-Assisted Language Practice for Third-Year German Students
with WinCALIS**

Project Title

Inge DiBella, PhD

Project Director

Germanic and Slavic Studies

Requesting Department

\$ 2,990

Amount Requested Year 1

(N/A)

Amount Requested Year 2

Project Director's Signature

Proposal Endorsement Signatures

Department Head

Dean

I propose to implement the powerful computer-based interactive learning system WinCALIS (Windows Computer Assisted Language Instruction System) for third-year German students. Exercises created with WinCALIS allow third-year undergraduate students to review and practice German grammar in a systematic and rigorous, but also highly interactive and individualized manner. Graduate students in our department would also benefit as they would receive hands-on training in creating high-quality multimedia computer exercises for specific courses.

I request a full site license, 20 WinCALIS student workstations and 6 authoring stations which include the multimedia editor for incorporating images, sound, and video clips in lessons.

Computer-Assisted Language Practice For Third-Year German Students with WinCALIS

I: Project Description

1. Nature of the Innovation

This project involves the use of powerful interactive, custom-generated German language computer exercises created with the authoring program WinCALIS, an acronym standing for Windows Computer Assisted Language Instruction system. These exercises utilize an advanced error diagnosis system which effectively guides the student to the correct answer. These exercises, which are not textbook-specific, provide systematic grammar training or review for independent student review outside the classroom. The instructor may assign clusters of exercises, for instance, and request a score sheet.

TAs in the department would be trained in using WinCALIS to author pedagogically sound exercises for specific undergraduate courses which could be enhanced with supplementary multimedia computer modules. Our TAs who are thus honing their technological as well as pedagogical skills will strengthen their portfolio and prospects on the job market.

2. Rationale and need for project

Undergraduate German language students in their third year differ widely in their command of the language. It is therefore difficult to adequately address specific areas of weaknesses in class because of the wide range of mistakes beyond intermediate German language classes. Time restraints exacerbate this problem. Office hours also prove unsatisfactory for in-depth grammar review with individual students because of the instructor's limited time. Consequently, students are more or less left to their own devices by being told to review certain grammar points on their own. This often leads to frustration on both sides: with the student feeling brushed off, and the faculty member feeling inadequate for the difficulty in guiding the student and following up on his or her progress.

It would therefore be very useful to have a tool at hand which allows students to practice and review selected grammar points independently and outside of class. The exercise formats and contents should reflect sound principles of foreign language pedagogy, including for instance variation in exercise format, incorporation of multimedia, constructive error feedback, and score keeping. WinCALIS is such a high-quality, powerful and flexible program.

Currently, only one upper level course, GRMN 4001/6001 *Advanced Composition and Conversation* utilizes a computer-based practice tool. This *Übungs CD Grammatik* is by Hueber, a German publisher, accompanies the (mandatory) course textbook and

provides additional exercises. These exercises are well-designed and appropriate for this level of instruction. However, this software is too textbook specific in its vocabulary and finer grammar points to be adopted for third-year German courses. It cannot be used as a stand-alone product. In fact, commercial classroom-ready software packages for language practice typically either do not go deep enough into grammar or utilize only simplified (i.e. non textbook-specific) vocabulary. “Mastering” these exercises can give the students a misleading sense of accomplishment. There is generally no systematic introduction into a grammar topic in an interactive way (i.e. laid out in exercise format) and no or little progression from easy to more difficult within a given grammar topic. In other words, there is no effective language software that neither bores students nor overestimates their abilities.

Well-designed computer exercises are, of course, a result of a thorough understanding of learning objectives and methodology, as well as knowledge about the technical possibilities the software offers. While TAs in our department receive thorough training in teaching, both in its practical and theoretical aspects, there is currently no formal technological training offered to them. It is, however, highly desirable that TAs gain practical experience in utilizing best computer-assisted instruction. Being trained in authoring effective computer lessons with WinCALIS will reinforce and deepen the pedagogical skills of our graduate students.

3. Relevance of the project to unit and university priorities

Acquisition of the WinCALIS program contributes to fostering an academic climate of personal responsibility for academic achievement and progress. Undergraduate students will benefit from a bank of exercises to be used by the recommendation of their instructor. Self-paced learning respects individual differences in the speed and depth of language acquisition. Especially for foreign language classes, it is advisable to offer “patient” learning tools to allow for a low-anxiety and conducive learning environment. Computer-assisted instruction permits this. WinCALIS fulfills a dire need in the department for a textbook-independent grammar review tool for students.

Acquisition of WinCALIS will also positively affect our graduate students who will author, implement and revise learning modules. This increase in technological skills, coupled with practical insights into how learning takes place best, corresponds to UGA’s goals to produce graduates who are “well informed, culturally sensitive and technologically sophisticated” (<http://www.uga.edu/aboutUGA/compete.html>)

The department will benefit on several levels:

- a) Instructors can send students to the computer lab for practice, as needed. This will free up some class time for more discussion and presentation.
- b) Students will gain a sense of empowerment as they can take charge of their own learning.
- c) The department can use the technology training it provides for its graduate students as an additional recruitment tool for attracting TAs.

4. Specific courses or student groups benefiting from the project

Different faculty members teach GRMN 3010 and 3020 (*Language: Culture and Society I and II*) and for Business German GRMN 3070 and 3080 (*Language: Business and Politics I and II*). These courses are offered every semester. Each instructor chooses his or her own textbook and grammar review material (if desired). Therefore, course materials and extent of built-in (remedial) grammar review vary widely. A bank of exercises for grammar practice will be developed for these courses.

The maximum number of students using the program (outside of class) could be up to 80 per semester but a more realistic number is probably 15-30.

About 5-8 teaching assistants will receive training in the WinCALIS authoring program each year. They will devise sets of exercises for these classes.

II: Budget

1. Technology and facility

Joseph Brown Hall has a 20 station IBM-compatible computer lab which has foreign language specific proofing tools and keyboard functionality for German and Russian. Our students are using the lab for writing, editing, and listening assignments. The lab also has a projector.

Proposed Budget for Budget Year 1:

Item	Quantity	Price per unit	Total	Requested from LTG
WinCALIS Author Basic (European languages)	6	\$150	\$ 900	\$ 900
WinCALIS Student Workstation 10-pack	2	\$ 250	\$ 500	\$ 500
WinCALIS Partial Site License (for up to 30 student workstations)	1	\$1500	\$1500	\$1500
Business German (starter set of exercises)	1	\$ 30	\$ 30	\$ 30
Printed Manual	2	\$ 25	\$ 50	\$ 50
Shipping and Handling			\$ 10	\$ 10
TOTAL			\$ 2990	\$ 2990

Proposed Budget for Year 2:

(not applicable)

2. Budget justification narration

For optimal use of WinCALIS, twenty student workstations are needed so that an entire class could practice at the same time, if so desired. For TA-training purposes, six authoring stations will be sufficient.

WinCALIS is available through the Humanities Computing Laboratory, a nonprofit education and research corporation housed at Duke University. The basic components of the WinCALIS system are the Student Delivery Station, and the Authoring Station with the Multimedia Editor for incorporating images, sound, and video clips in a lesson. We request a full site license, together with twenty WinCALIS student workstations, and six authoring stations.

3. Timeline of Project (2008-2010)

Date	Objective	Persons responsible
7/08 – 8/08	Setting up student work stations and authoring stations (technician) Creating instruction sheets for students and faculty Informing faculty of new resource Updating departmental web page Preparing TA workshops (dates, manuals)	Ms. N. Khayat (technician) Dr. DiBella
8/08	(Hands-on) Presentation of new resource to faculty in lab	Dr. DiBella
9/08	First TA workshop (text-based ex.)	Dr. DiBella
10/08	TA workshop	Dr. DiBella
11/08	TA workshop (multimedia)	Dr. DiBella
12/08	TA workshop and presentation	Dr. DiBella
1/09	TA exercises are implemented and tested in a selected class	Dr. DiBella
2/09	TA workshop	Dr. DiBella
3/09	TA workshop	Dr. DiBella
4/09	TA workshop (multimedia)	Dr. DiBella
5/09	Evaluation of TA generated materials	Dr. DiBella
8/09	TA workshop	Dr. DiBella
9/09	TA exercises are implemented and tested in a selected class TA workshop (multimedia)	Dr. DiBella
10/09	TA workshop (multimedia)	Dr. DiBella

11/09	TA workshop	Dr. DiBella
12/09	Evaluation and revision of TA generated materials	Dr. DiBella
1/10	TA workshop (multimedia)	Dr. DiBella
2/10	TA-generated exercises become generally available	Dr. DiBella
3/10	TA workshop (multimedia)	Dr. DiBella
4/10	TA workshop (multimedia)	Dr. DiBella
5/10	General evaluation	Dr. DiBella

III: Learning Outcomes

Student learning can be very positively impacted with the implementation of WinCALIS computer drills and exercises:

“In a WinCALIS lesson, students can receive helpful feedback and extra information at their own individual pace, making WinCALIS a valuable supplement to classroom and textbook learning. Teachers have many options in response evaluation: when to Check Case and Punctuation, when to allow the student to Give Up and view the correct answer, where to allow mouse or keyboard use, and when to allow the student to Pass between answers or groups of answers. The use of wild card characters increases the range of flexibility in response analysis, and allows answers to be flexible and open-ended.”
(<http://www.humancomp.org/intro.htm>)

The individualized feedback option within WinCALIS is a powerful teaching tool as it allows the teacher to prompt and coach the students. For instance, a student conjugating the irregular verb *sehen* in the 2nd person singular remembers to change the stem-vowel to *sieh-* but adds the wrong verb ending and types *du sieht*. The teacher, anticipating this mistake, can group student mistakes with the use of so-called wildcards. The asterisk character, for instance, would match any sequence of characters in a word, such as *sieh** with *siehe*, *siehen* or *sieht*. The teacher could then catch all conjugation errors beginning with *sieh* and have the feedback “Check your verb ending” or more specifically “Check verb-subject agreement” come up. In a similar way, the teacher could use the wildcard **st* to catch all student answers with the correct verb ending but the wrong stem-vowel change, such as *sehst*, *sehest*, or *seihst*, combining them with the feedback “Check your stem-vowel change.” Even more fine-tuned error recognition is possible with WinCALIS by using the wildcard *^* to match single letters. Thus, error diagnosis can be very narrow or broad, depending on the pedagogical objectives in order to catch certain kinds of mistakes.

This kind of detailed feedback is especially useful when students write short sentences. Rather than discounting the entire sentence as wrong if there is one mistake or deviation from the correct answer, WinCALIS will allow the teacher to allow multiple answers to be counted as correct. If there are multiple errors within the same sentence, teachers, can use the feedback option to identify one mistake at a time for students to

focus on. This specific feedback option—currently only available through WinCALIS—optimizes student learning.

Learning modules will employ different exercise formats, such as cloze, true/false and multiple choice questions which combine text, visuals and audio. The grammar drills will cover a wide range of grammar, such as passive voice, indirect speech, and relative pronouns.

The project director will supervise the implementation of the project closely to ensure that learning outcomes are being met. One important and ongoing method of evaluating the success of the computer drills consists in collecting the score. For that purpose, undergraduate students who are using WinCALIS are asked to submit their score sheet to the instructor. The score sheet also contains a brief questionnaire about the usefulness and effectiveness of the computer activities.

The project director will closely monitor the progress and quality of the exercises which the TAs develop. The project director already worked with WinCALIS as a TA and doctoral student in the German department at the University in Virginia. She devised a bank of CALIS exercises (later converted to WinCALIS) and conducted numerous workshops.

WinCALIS works not only with all left to right alphabet based languages but also Asian languages. This opens up exciting possibilities for less commonly taught languages where there is often a lack of effective computer-assisted language learning tools. The experience gained by the department could be readily shared with other departments.

IV: Support Plan

By the end of the grant period, no further financial need is anticipated to maintain and continue the initiative with regard to staffing or equipment.

TA training will continue with fine-tuning grammar exercises and developing content modules for third-year classes. This will be done with the assistance of the program director and will not require additional financial resources.