I. Project Title: Creating an Effective Learning Environment for Students at Iowa State University

Project Brief: The College of Agriculture & Life Sciences (Brenton Center), College of Human Sciences, College of Liberal Arts & Sciences, and the Language Studies Resource Center submits this proposal to request support for technology that allows students to connect and collaborate and build relationships by combining state-of-the-art interactive technologies such as voice, video, application sharing, polling, and white boarding, with traditional best practices of instruction.

Proposing Unit: Brenton Center for Agricultural Instruction & Technology Transfer, College of Agriculture & Life Sciences

Responsible Administrative Units: College of Agriculture & Life Sciences

Administrators and Project Participants:

Gaylan Scofield, PhD, Director
College of Agriculture & Life Sciences Distance Education
Brenton Center for Agricultural Instruction & Technology Transfer

David Anderson, Director
Center for Distance & Online Learning
College of Liberal Arts & Sciences

Julio Rodriguez, PhD, Director
Language Studies Resource Center
College of Liberal Arts & Sciences

Sly Upah, Director of IT & Distance Education
Office of Distance Education & Educational Technology
College of Human Sciences

Randal Dalhoff, Assistant Director
IT Services Academic Technologies

Supporting Statements
Anna Johnson, Assistant Professor
Animal Behavior & Well-being Research
Animals Science Department

Jean Anderson, MS, RD, LD
Sr. Clinician/Dietetic Internship Director
FSHN Department

Michael Retallick, Assistant Professor
Director of Undergraduate Programs
Agricultural Education & Studies

Steven Mickelson, PhD, Director
Center for Excellence in Learning & Teaching
ABE Department, Associate Chair

Cristina Pardo Ballester, Assistant Professor
Supervisor, Elementary & Intermediate Spanish
Department of World Languages & Cultures

Aili Mu, PhD, Associate Professor
Chinese
Department of World Languages & Cultures

Kelli Bacon, Director
Distance Education and IT
College of Veterinary Medicine

Ranokhon Marupova, Library Associate
Parks Library

Project Leader: Gaylan Scofield, PhD., Director
College of Agriculture & Life Sciences Distance Education
Brenton Center for Agricultural Instruction & Technology Transfer
004 Curtiss Hall
(515) 294-0045
Email: ggs@iastate.edu
II. Project Overview and Expected Benefit

Overview:
This request will help provide a two year license for Wimba Learning Tools (Classroom, Pronto, and Voice) campus wide. Wimba offers the most comprehensive suite of collaborative products created exclusively for educational purposes. Wimba empowers educators and students with a unique collaborative approach that enhances learning, improves outcomes, and increases student retention by building a robust and dynamic learning community. The Wimba suite fully integrates into WebCT and Moodle, but can also be utilized as stand-alone technology for video conferencing using Wimba Classroom, thus helping make ISU a “Green Campus”. Currently there are 1,200 WebCT accounts with 1,989 Active Course Sections that would have direct access to this technology.

Two of the Wimba Learning Tools (Classroom & Voice) are currently being pilot tested campus wide. The College of Agriculture & Life Sciences, College of Human Sciences, College of Liberal Arts & Sciences, Language Studies Resource Center, and the Center for Excellence in Learning & Teaching have provided the necessary pilot testing financial support for Fall 2008 and Spring 2009 semesters. Two university wide training sessions have also been provided by the supporters. Several of the Wimba pilot testers are have been Adobe Connect users. Based on user feedback, a need exists to make Wimba a permanent fixture for students and faculty. Wimba will provide more overall tools for student and faulty use and is an integrated platform into WebCT and Moodle than Adobe Connect. Overall, it is a more robust set of dependable tools that is easier to use than Adobe Connect.

Benefits:
Wimba Classroom is an incredibly powerful tool for collaborating both inside AND outside the instructional space. Wimba Live Classroom is a real-time virtual classroom environment designed by educators for education. It is an easy, intuitive, user-friendly platform that allows instructors to build interactive learning communities in their classes. Wimba Classroom collaborative use includes virtual classes, webcasts, study groups, meetings, and tutoring. It features multi-way audio (VoIP), application sharing, electronic whiteboard, full-featured archives, and can provide accessibility to hearing/site impaired. It adds a genuine human feel to the WebCT and Moodle environments, has an easy-to-master user interface, and has consistent reliability even at slower connection speeds.

General comments from users of Wimba Classroom indicate that their classes are much more interactive than their face-to-face on campus classes. The relationship between active involvement and effective learning is strong. Real-time communication around rich content, visualization using video, presence, emoticons, and participation through voice – in an otherwise text-based course – compels active involvement to facilitate the learning process. Instructors are using polls to get instant student feedback, asking open-ended questions where students must then answer by talking back to the instructor, or by having break-out rooms where students can engage in either small group problem solving or small group project work. Several current instructors have used this tool to bring in guest lecturers without having to pay travel costs or other related expenses. Students are much more engaged when they can become an active participant.

Wimba Voice features a podcaster, voice presentation, voice discussion board, voice authoring, and voice email. Faculty are using it to create and distribute podcasts, explain complex material using audio files, engage in audio-based threaded discussions, and add instructor/student voice to enhance learning. Students and faculty report it heightens socialization and accelerates the establishment of a cohesive community of learners. This type of tool not only adds a new dimension to communication within learning environments, but also creates new opportunities for learning and collaboration. For example, the asynchronous nature of the tool allows for international exchanges (e.g., discussions, collaborations, etc.) utilizing voice without the problem of coordinating events at convenient times for all participants in different parts of the world.
Additionally, the integration of the voice tools with ISU systems (e.g., iTunes U, WebCT, etc.) makes it possible to enhance already existing systems rather than create new ones.

The Voice Tools were originally introduced to ISU in 2006 thanks to a successful CAC proposal. As part of that proposal, a WebCT support environment was built with resources such as quick references and handouts for both students and faculty. Over 80 ISU faculty have requested access to this resource, which will continue to be updated.

**Wimba Pronto** provides spontaneous, synchronous collaboration between students and teachers in a safe secure environment. It allows students to see who’s online from their classes, clubs, and study groups and instantly collaborate by chatting, connecting thru video, and by sharing their desktop. It makes it easy to communicate with peers and can serve to provide a stronger sense of community in the solitude of asynchronous online coursework. It enables robust collaboration around all aspects of academic life necessary to bring forth a vibrant community. Faculty can use it for on-line office hours, which will provide students with better overall comprehension of course materials since they now have the ability to chat synchronously with the Instructor from any location.

The Wimba Learning Tools will enable our students to connect and collaborate in so many different ways. These tools will allow faculty and students to build relationships by combining state-of-the-art interactive technologies such as voice, video, application sharing, polling, and white boarding, with traditional best practices of instruction. These tools will bring great teaching to life by allowing teachers and students to express their most important asset – themselves. Student clubs and organizations will have full access to all of the Wimba Tools outside of the classroom environment. It seems likely that we will discover new uses for the technology as we become more familiar with all of the capabilities.

Current face-to-face tools used on campus include Adobe Connect. Adobe Connect does not interface inside of WebCT or Moodle, nor does it offer the wide range of voice tools and flexibility as Wimba does. Since Adobe Connect can’t integrate with WebCT or Moodle, one must contact another University unit to request the use of it, pay a user fee, than it must be set up and tested to ensure it will work. It requires more bandwidth than the Wimba Suite as it is designed for video conferencing. Iowa State University is at a significant disadvantage in comparison to comparable institutions that utilize Wimba for classes. Wimba will also integrate with our Moodle servers.

Wimba Classroom appears to present a pedagogical advantage over the way in which Adobe Connect is currently deployed on campus. Wimba Classroom allows instructors to create multiple rooms in multiple WebCT pages with only a few clicks, with no need for administrator intervention. Having this type of flexibility enables richer and more varied pedagogical options. For example, break-out rooms can be created on the fly during a live session, or virtual meeting rooms can be created for casual student meetings (e.g., study groups).

**Priority Discussion:**
Our proposal supports the requirements of Priority Initiatives 1, 2, 3, and 4 set forth by the Computation Advisory Committee as indicated below.

**1st Priority:**
This is a campus-wide proposal because it impacts students from every academic major and department. The technology requested in this proposal will also be available to any students interested in using this technology as “tools of collaboration” in their academic endeavors here at ISU.

**2nd Priority:**
This proposal will benefit students utilizing special technology and computers as they continue to seek opportunities to complete ISU courses and programs. This technology can help provide accessibility to the impaired as required by various laws and university policy requiring reasonable accommodations.
3rd Priority:
This proposal requests technology that interfaces directly with ISU’s current course management system, WebCT and is also supported in Moodle. Our hope is that it will further support to enhance opportunities for access by all students as it provides spontaneous, synchronous collaboration between students and teachers in a safe secure environment.

4th Priority:
This proposal endorses increased active involvement and effective learning for all students so they may participate in robust collaboration around all aspects of academic life necessary to bring forth a vibrant learning community.

Discussion:
The multi-way audio (VoIP), application sharing, electronic whiteboard, full-featured archives technology requested in this proposal will be utilized/made available to all students with hope that it enhances their learning, improves outcomes, and increases student retention. It also will help increase enrollment in distance education programs and classes. It gives us the opportunity to work with community college students before they enter Iowa State University. It could also allow departments to offer more courses or the same number of courses in times of budget cuts if faculty positions are reduced. Archiving lectures would allow for after class review by students. Faculty using Wimba feel it is revolutionary and have enthusiastically embraced it. The Wimba tools can be accessed right inside of the WebCT or Moodle courses and they don’t need to install any software on their computers. Additional information on Wimba can be found at http://www.wimba.com/products/wimba_collaboration_suite/ or http://www.cte.umd.edu/teaching/newsletter/2007-08/April_May_HTML/Wimba.htm.

Support and Maintenance:
Randal Dalhoff, IT Services Academic Technologies will continue to assist with the integration with WebCT and Moodle. CELT would assist in supporting Wimba by helping faculty incorporate Wimba into their WebCT courses. Colleges involved with this project will provide first line support using graduate student labor during the first year to help assist faculty and students adopt the new technology. Wimba will provide higher level 24/7 support to students, faculty, and staff using Wimba products. Wimba Voice will be housed on a server provided by the Language Studies Resource Center. Wimba Live Classroom and Pronto will be hosted on servers provided by Wimba.

Assessment:
During this two year project, data will be collected to determine the impact Wimba has had on students, faculty, and the Iowa State University learning environment. The collection of this data will help to determine the on-going presence of Wimba on the Iowa State University campus since the current WebCT contract is set to expire late 2011. If the campus moves to Moodle, Wimba will function within it.

Budget:
Please see attached Table 1 (“Full Itemized Budget”) and Table 2 (“Minimum Feasible Itemized Budget”).
### Table 1. Full Itemized Budget

<table>
<thead>
<tr>
<th>Description of Item</th>
<th>Number</th>
<th>Unit Cost</th>
<th>Total Cost by Funding Source</th>
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<tr>
<td><strong>Hardware</strong></td>
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<td>CAC Central Pool</td>
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<tr>
<td>Other</td>
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<tr>
<td><strong>Software</strong></td>
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<td><strong>Other</strong></td>
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<td>Training, Integration &amp; Implementation (first year only)</td>
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### Table 2. Minimum Feasible Budget

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Supporting Statements

From: Anderson, Jean A [FSHNH]
Sent: Wednesday, February 11, 2009 7:42 AM
To: Scofield, Gaylan G [AGEDS]
Subject: CAC grant ISU DI participation
Importance: High

Dear Dr. Scofield:
The FSHN Dietetic Internship (DI) would be interested in participating in a CAC grant related to WIMBA development and support. We are especially interested in the voice email capability that was demonstrated at the January 29, 2009 workshop. Use of this system would save the DI faculty time of course and also have the information more accessible to the intern as they would be able to listen to the messages/information through their MP3 players as they commute. It is anticipated that the WIMBA system will be used by 3 ISU DI faculty, up to 60 dietetic interns located across the country and approximately 200 dietetics professionals who are providing the learning opportunities to the interns. At this time we are unable to commit funds to the project.

Thank you for the opportunity to participate.

Sincerely,
Jean Anderson
Janet Johnson
Laurie Kruzich

Jean A. Anderson, MS, RD, LD
Sr. Clinician/Dietetic Internship Director
Iowa State University
FSHN Department
220 MacKay Hall
Ames, IA 50011-1123
O: 515-294-7316
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janderso@iastate.edu
Dear Dr. Scofield:

I am using the WIMBA live classroom program within my on-line graduate class; 

**An S 537. Topics in Farm Animal Environmental Physiology, Behavior, Stress and Welfare.** Cr. 2 
S.F. To familiarize students with current and classical scientific literature in areas of: Immunology, brain and endocrine mechanisms of stress, stress-immune system interactions and mechanisms, behavior, performance and health measures and animal rights. The course is co-taught across three institutions: Iowa State University (Dr. Johnson), University of Illinois (Dr. Salak-Johnson) and Texas Tech University (Dr. Sutherland). This course provides the opportunity for senior undergraduates and graduate students to interact with students at different universities with similar interests. The course covers:

- Animal rights and philosophies
- Brain mechanism of stress
- Measuring behavior and welfare
- Environmental stressors
- Stress and the immunity
- Behavioral measures of farm animal welfare

This is an on-line class that we co-teach over ISU, Texas Tech University and University of IL. This semester I also have students from University of MN and North Dakota as well.

WIMBA has been a huge improvement over Adobe Connect. First, it is reliable; I never have to worry about logging onto the system or the students logging on. Second, the audio and sound feedback is timely clear and concise. Third, there is no limit to the number of guests / students you can have on WIMBA, breeze I believe is limited to 30 students. Four, it is super easy to navigate through and learn, I spend half a day learning the system, up loading info from the computer etc., and now have never run into an issue with this system as all.

WIMBA has the features of being able to show PPT, write in the chat box, you can get real time feedback with polling features and in addition you can archive your PPT and slides (audio) and these are then automatically archived for students who may have missed class to catch up. Having WIMBA embedded into WEBCT Gold is very easy to keep all your class needs in one spot (PPT, reading assignments, grade book, video etc.,) - and this has been a vast improvement over Breeze.

I think WIMBA is a wonderful long distance tool and I hope that you able to be successful in keeping this because it enhances the teaching ability of ISU.

Thank you

Anna
Dear Dr. Scofield:

It is my pleasure to endorse your proposal to continue the license for the WIMBA software in the Brenton Center at Iowa State University. I am using this remarkable program for the laboratory portion on my Animal Science/Agronomy 543x ‘Environmental Management of Livestock’ course.

In this portion of the course, I am introducing the students to software and spreadsheets related to nutrient management, livestock ration formulation, manure management plans, geographic information systems (GIS), and pasture forage budgeting. WIMBA obviously allows the students to see what my teaching assistant or I am doing with these programs in real-time as we are demonstrating their use. Therefore, they have the ability to ask questions regarding procedures immediately as in an on-campus computer laboratory. While the archive feature of WIMBA is also useful to students who can not be on in real-time, the ability for real-time feedback is a considerable advantage over waiting for an e-mail reply to a question about a recorded demonstration. This advantage has already been demonstrated by the performance from the students who regularly are on-line compared to those who rely more on the archived sessions.

As a result of this ability to communicate and demonstrate laboratory activities with the students on a real-time basis, I strongly support continuing the license for the WIMBA software. I firmly believe while lecture material can be effectively conveyed in a recorded format, laboratories need to be taught on a real-time basis. The WIMBA system provides the students with as close to an on-campus laboratory experience as possible. Please let me know if there are any other measures that I can take to maintain the use of this software in the Brenton Center.

Sincerely,

Dr. Jim Russell,
Professor
Department of Animal Science
Rm 337 Kildee Hall
Iowa State University
Ames, IA 50056
CELT’s mission is to support, promote, and enhance teaching effectiveness and student learning, encourage scholarship of teaching and learning, communicate the importance of teaching and learning to both internal and external audiences; and serve as a catalyst for learning-centered education by fostering innovations in university teaching.

CELT would use Wimba in the following ways:

1. Provide a virtual workshop or seminar alternative to face-to-face workshops allowing faculty to attend faculty development events from their office, home or traveling. These recorded events can also be archived so faculty unable to attend could view the event at a more convenient time.
2. Bring in more outside faculty speakers and e-learning experts into CELT events without paying for expensive travel.
3. Provide one-on-one virtual instructional development consulting to faculty with computer screen sharing and two-way video. Currently we use the phone or email and are unable to visually assist faculty in their e-learning course development remotely.
4. Provide faculty with a virtual help desk for WebCT and e-learning software support requests.
5. Adding the Wimba tools in WebCT will dramatically increase the campus adoption of both tools and will create a rich virtual learning environment for the entire campus and for both on and off campus students. By making the tools available to students and faculty we will see students promoting Wimba to their instructors as well as providing faculty with as needed technology support when using the tool.

Dr. Steven K. Mickelson  
Center for Excellence in Learning and Teaching, Director  
ISU Learning Communities, Co-Director  
Agricultural and Biosystems Engineering Department, Associate Chair  
515-294-2402  
estaben@iastate.edu
Wimba looks like an ideal program for me because of its versatility. I would be able to use it to enhance my distance education course through the addition of a synchronous teaching component. I also have taught units of off-campus courses which would have benefited from asynchronous communication. Wimba will provide this in a very user-friendly manner. I will also be able to use it for virtual office hours for both my on-campus and off-campus students, especially for those students who are off-campus and attempting to complete theses or dissertations. I like the multidimensional functionality of this software. I have used other software that was more cumbersome and less effective because only the instructor had voice capabilities and the students could only communicate in a chat environment.

Michael S. Retallick, Ph.D., Assistant Professor
Director of Undergraduate Programs
Agricultural Education and Studies
Iowa State University
206 Curtiss Hall
Ames, IA 50011-1050
Voice: 515.294.4810
Fax: 515.294.0530
Web: www.ageds.iastate.edu

From: Maria-Cristina Pardo-Ballester <cpardo@iastate.edu>
Date: Tue, Feb 24, 2009 at 5:34 PM
Subject: Letter of Support for Wimba
To: Julio C Rodriguez <jcesar@iastate.edu>

Dear Dr. Rodriguez,

We use Wimba in all sections of Spanish 101, 102, 201 and 202, which total an approximate enrollment of 800 students. These tools have been extremely useful in supporting and enhancing language instruction in Spanish. The addition of the Wimba Classroom would be very beneficial for our context as well, since we are implementing hybrid courses that meet both face-to-face and on-line. Having a tool that allows me to create multiple groups and archive my sessions for both, student review and possibly research, would not only help us improve the delivery of hybrid courses but also create opportunities for research in this important area.

Cristina Pardo Ballester, Assistant Professor of Spanish Linguistics
Supervisor, Elementary and Intermediate Spanish Program (Spanish 101, 102, 201 & 202)
Department of World Languages and Cultures
3118A Pearson Hall
Iowa State University
(515) 294-2134
Dear Dr. Rodriguez,

I would like to support the implementation of Wimba on the ISU campus. Chinese 301 focuses on cultural literacy through a variety of texts from the humanities, social sciences, mass media and business. The lack of the necessary aural-oral environment presented the largest obstacle in the study of Chinese language on ISU campus until the Voice Tools were licensed. Students who have reached the advanced level (with sound knowledge of grammar and vocabulary) need this environment especially to achieve the required level of communicative proficiency. I have been using WebCT in my classes for three years. The implementation of all four Wimba tools creates the much needed aural-oral environment.

Regards,

Aili Mu, Ph.D.
Assoc. Prof. of Chinese

The Wimba tools add another important human dimension to students' language learning, so I fully support having these tools available in ISU. I use Wimba in French 310, which focuses on speaking, oral and aural exercises and assessments. With Horizon Wimba Voice Tools, the administration of these tasks are more easily and efficiently done as outside-of-class tasks, which allows for more opportunities in the actual classroom. Oral comprehension and progress checks can be assigned more frequently as homework because of the efficiency and accessibility of these tools. The capacity to send out voice emails to address homework errors is ideal, as this is a task that currently takes up several class-time minutes.

Neysa Goodman
Lecturer of French
World Languages and Cultures
Iowa State University
2105 Pearson Hall
Ames, IA 50011
515.294.3284
The College of Veterinary Medicine recently added the position of Director of Distance Education and IT with the intent of building a successful distance education program. My role also includes oversight of the staff assisting faculty with classroom learning technologies.

As the person filling this new role, I intend to use various software and hardware technologies in the development and implementation of our distance education program as well as the continuation of the classroom technologies. Wimba Learning Technologies will be an effective method for both distance and on-site education.

Wimba Classroom will be particularly integral in our multi-site courses. The College of Veterinary Medicine currently has a relationship with University of Nebraska at Lincoln. The ISU faculty teaches the same courses to ISU students and UNL students, preferably concurrently. Using Wimba Classroom for these courses will allow the faculty to integrate the students from the two institutions with minimal effort and maximum effect.

Although Vet Med faculty and the assisting staff do not have experience with Wimba Pronto or Voice, our educational needs in the college are broad enough to require several possible technology options. We will be able to assist faculty with these tools to fulfill specific communication requirements.

Kelli Bacon  
Director of Distance Education and IT  
College of Veterinary Medicine

So far we see two ways that Wimba can be used effectively in library instruction programs:
1. Using Wimba to deliver Library seminars to the remote participants. This will help the Library to reach more users. This semester we have 4 seminars scheduled on various topics. All seminars are open to ISU community and will be delivered in two methods simultaneously: on-site and on-line (webinar using Wimba). In the future, if we have supporting technology, we plan to open the Library webinars beyond our campus users. We have our first seminar this afternoon.
2. Since Library 160 is an independent study course, Library 160 instructors may also use Wimba for delivering supplemental instruction sessions or office hours. This has not been experimented yet. I plan to experiment this during the spring II session. I also know of couple instructors who are interested on using Wimba for this purpose.

Rano