

Academic Research Makes a Case for the Wimba Collaboration Suite

*Benefits of Multi-Modal Online Collaboration
Include Enhanced Learning, Improved Student Outcomes,
and Increased Retention Rates*

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I. INTRODUCTION

Many consider the founding of Blackboard and WebCT in the mid 1990's to be the beginning of distance education as we know it today. When these two companies and their respective course management systems opened for business, they provided what became the hubs for the vast majority of all online courses, most of which still exist today. However, these text-based systems didn't always provide the communicative and collaborative elements which are pivotal to fostering comprehension and student success. Thus, companies such as Wimba quickly emerged to enable instructors and students to collaborate more naturally in a distance learning environment. By adding an array of valuable elements of collaboration to online courses via Wimba, institutions can enhance communication, improve student outcomes, increase retention rates, and sometimes even create additional revenue streams while making a greener planet.

Though it may sound intuitive, research shows that students need to collaborate in different ways with their instructors in order to succeed. While some students excel in a text-based course, many others need audible and visual elements to thrive. For instance, in 2008 the Metiri Group, an education consulting firm, published *Multimodal Learning through Media: What the Research Says* which found that adding visuals to verbal (textual and/or auditory) instruction can result in "significant gains in basic or higher-order learning." It also found that students using a well-designed combination of visuals and text learn more than students who use only text.¹ While this idea of students learning in different ways seems obvious, the majority of online classes worldwide still primarily rely on text. As both hybrid and distance learning programs at institutions mature and evolve, many are now looking toward adding collaborative elements to their online courses, but some still aren't quite sure if adding new technologies will help their students succeed or if they'll prove to be too costly and time-consuming to maintain.

This white paper analyzes numerous research studies conducted by instructional technologists and faculty from K-12 and higher education institutions throughout the world. Their research demonstrates that adding various collaborative elements such as voice, video, application sharing, podcasting, and instant messaging can quickly improve the quality of almost any school's distance education program.

II. ACCOMMODATING DIFFERENT NEEDS

II A. Diverse Needs for Online Instruction at a Single Institution

While it is common knowledge that different schools have different needs, some tend to forget that different departments within a single school often have different needs as well. For instance, it's unreasonable to ask a foreign language instructor to use the same tools as an Engineering or Nursing instructor to teach online. While an arts school like the Rhode Island

¹ Lemke, Cheryl. "Multimodal Learning through Media: What the Research Says." The Metiri Group. October 2008.

School of Design specializes in one field of study, most schools have more diverse course offerings, many of which have their own nuances and needs. Drexel University in Philadelphia is one such institution. Thanks to the diversity available within the Wimba Collaboration Suite, different departments – from Nursing, to Engineering, to English As A Second Language (ESL) – are finding easy answers to their unique needs. For example, Drexel’s Nursing department relies heavily on live online instruction via Wimba Classroom while its ESL instructors frequently allow students to practice speaking English online via Wimba Voice.

This flexibility of Wimba software is seen everywhere from institutions worldwide to individual departments within a single school. For example, Manuel Frutos-Perez, Deputy Manager, E-learning Development Unit at University of the West of England, Bristol states, “We have found that the flexibility that the Wimba tools provide is extremely useful. It is a Suite of tools that can cater to different needs and abilities across our entire institution.”²

And Dr. Michael Sankey, Learning and Teaching Support Unit at University of Southern Queensland in Australia reports that, “78% of our students study by distance education – that’s 19,000 students – so we needed a robust tool that we could use in a range of circumstances. Voice and image was important as we have 90 different nationalities studying with us, so we needed a tool that would allow a range of modalities to be used in presentations. We looked at other products but feel Wimba offers us a greater selection and the right type of tools. Our distance education cohort is important, and we like the idea of online engagement and making links between the on- and off-campus students.”

Total Number of Students at University of Southern Queensland	Students Studying via Distance Education at University of Southern Queensland
Approx. 26,000	Approx. 19,000

II B. Voice for Feedback and Discussion in All Online Classes Including Foreign Languages

How can one learn a language without speaking or listening to it? Though this question sounds evident, there are thousands of institutions that currently offer foreign language and ESL courses that entirely lack vocal and audible elements.

Whether teaching a foreign language, ESL, or any other course for that matter, using voice to provide feedback can prove invaluable. In Using Asynchronous Audio Feedback to Enhance Teaching Presence and Students’ Sense of Community, a research study conducted by Philip Ice of University of North Carolina Charlotte, Reagan Curtis and Perry Phillips of West Virginia University, and John Wells of Virginia Polytechnic Institute and State University, the study reveals “an overwhelming student preference for asynchronous audio feedback as compared to traditional text based feedback, with no negative perceptions of the technique.” The report goes on to explain that over one third of students cited the use of audio feedback as a key factor they would use in selecting future online courses is a “significant” finding and that the

2 Wasowski, Matt. “University of West of England has its ‘Appetite for Collaborative Software’ Satisfied by Wimba.” 2008. <<http://www.wimba.com/community/casestudies.php>>

authors believe that “asynchronous audio commenting merits serious consideration in the development and delivery of future courses.”³ Though students can project themselves and their emotions through text based communication, two thirds of students in this study cited ability to understand nuance as reason for preferring audio to text feedback.”

For example, Dr. Edward Dixon, Foreign Language Technology Coordinator at the University of Pennsylvania Language Center, says, “In my German 102 course I ask [my students] questions about their families; ‘Where did you come from?’ ‘Where did you grow up?’ But when they respond they seem to be competing with each other, in terms of how much someone can post on a Wimba Voice Board.” Additionally, Leonard Thurman, Instructional Designer at Pima Community College (AZ), says that the ability to provide audio feedback is the primary reason his school uses Wimba. In fact, he claims, “We wouldn’t be offering online language instruction if we didn’t have Wimba. It’s just that simple.”

Additionally, in terms of providing vocal feedback, Bob Hemmer, Executive Editor and Program Manager of Pearson Prentice Hall’s MyLanguageLabs, says that Wimba, “Gives us convenience and greater accountability. Instructors now know that students are really practicing oral skills.”⁴

Further, institutions worldwide are taking advantages of podcasts. According to Tony Vincent of the education journal, Learning Hand, “Creating podcasts has many educational benefits. The process of putting together an audio recording is extremely valuable and is certainly a cross-curricular experience.” This is perhaps best demonstrated at Duke University, the institution that arguably has the premier podcasting and iTunes U program in the world. Also using Wimba Voice, Duke’s Center for Instructional Technology asks its instructors, “Want to feel closer to your students? It’s easy with the Wimba Voice! Use this exciting array of tools to record and place voice announcements in your online courses.”

These four above examples all affirm the findings in Using Asynchronous Audio Feedback to Enhance Teaching Presence and Students’ Sense of Community.

II C. Meaningful Interactions

Since the late 1990’s when the current form of online learning began to take shape, a common fear of instructors and academic administrators was that student outcomes would vary too widely between those enrolled in blended classes and those in purely online classes. While some believed that students enrolled in blended classes would perform better, there were just as many that believed the opposite. A study conducted at the University of Tennessee entitled Online vs. Blended Learning: Differences in Instructional Outcomes and Learner Satisfaction compares learning outcomes and other instructional variables between online and blended delivery methods. Its findings indicate that “no significant differences existed in learning

3 Curtis, Reagan, Philip Ice, Perry Phillips, John Wells. “Using Asynchronous Audio Feedback to Enhance Teaching Presence and Students’ Sense of Community.” Sloan-C Journal. Volume:11 Issue:2. July 2007.

4 Wasowski, Matt. “Pearson Prentice Hall Adds Vocal Collaboration to Foreign Language Texts with Wimba; Students Increase Oral Practice Outside of Classroom.” 2008. <<http://www.wimba.com/community/casestudies.php>>

outcomes” between purely online and blended courses.⁵ This has been seen in classes that use Wimba.

At DeKalb OnLine Academy outside of Atlanta, Dr. Regina Merriwether, Assistant Director of Instructional Technology and Principal, says, “Our students benefit by taking online courses in order to enroll in courses not offered in their local schoolhouse, take acceleration courses, receive course recovery efforts, and accommodate scheduling issues for students who need courses for graduation.” Whether her students take highly collaborative courses purely online or in a blended environment, they perform similarly.

In *Do Online Students Dream of Electric Teachers?*, Jason A. Scorza of Fairleigh Dickinson University states, “[Text-based courses] make the development of relationships between students and instructors, and among students themselves, more difficult because they generally do not allow for the kinds of visual and oral cues permitted—but by no means guaranteed—by face to face learning...The potential of online teaching and learning can only be realized when students and instructors see each other as real and valuable, and treat each other accordingly.”⁶ Via Wimba Classroom, this type of interaction has benefited institutions in several different ways.

First, in terms of having meaningful online interactions creating positive tangible results, Dr. Cris Guenter of California State University Chico was named ‘Arts Education Teacher of the Year’ because she allowed her students to perform at a high level via Wimba Classroom. “My students’ responses are very clear, concise, and articulate. In the results I’m seeing in their final exams, they’re citing each other’s comments!” she says. “Wimba allows my students to drill down deeper and anchor their thoughts. It’s fun for them because they can truly hear what classmates have to say. Wimba keeps the instruction personal and brings my courses to life.”

Second, in terms of increasing a school’s visibility, institutions are even attracting better instructors because they’re now providing them with the flexibility of teaching from their homes anywhere in the world, instead of having to move to a particular campus. “Wimba allows us to take advantage of expertise outside of West Virginia. For instance, we could never afford to hire [a national expert] or have her move, but she’s more than willing to teach for us with Wimba,” boasts Barbara L. Ludlow, Ed.D., Professor & Chair, Department of Special Education, West Virginia University. In a sense, Wimba has granted students in West Virginia access to the world’s elite education instructors.

The idea of accessible education means different things depending on who’s responding.

5 Lim, Doo Hun, Michael L. Morris, Virginia W. Kupritz. “Blended Learning: Differences in Instructional Outcomes and Learner Satisfaction.” *Sloan-C Journal*. Volume:11 Issue:2. July 2007.

6 Scorza, Jason. “Do Online Students Dream of Electric Teachers?.” *Sloan-C Journal*. Volume:9 Issue:2. June 2005.

III. ACCESSIBILITY:

The Disabled, Underserved Communities, Working Students, & Out-Of-Area

To some, accessibility means giving equal access to computing technologies to those persons with hearing and/or visual impairments, while to others, it simply means accommodating the many technology set-ups that students use today. While some students work on PC's, other work on Mac and Linux machines, and while some have broadband connections to access the internet via Internet Explorer or Mozilla, others still depend on dial-up to get to Safari or Firefox. Simply, there are numerous combinations of technologies – and users – that must be taken into account by educational technology providers. Wimba follows suit.

III A. Accessibility for Persons with Hearing and Visual Impairments

Wimba believes that technology can remove barriers and make quality education universally accessible. Its mission is to develop software with the goal of meeting or exceeding globally recognized accessibility guidelines, as defined in Section 508 of the Rehabilitation Act (U.S. Government), as well as W3C-WAI and SENDA (UK), and is therefore committed to creating products so that persons with special needs have equivalent access to a quality education.

In 2002, Wimba Classroom (then called 'HorizonLive') became the first virtual classroom solution to make a concerted effort to satisfy many guidelines of Section 508, as, among other functionalities, it was amenable to closed-captioning and was screen-reader friendly. Its accessible features then progressed with the creation of shortcut keys and hot keys that further accommodated many screen readers such as JAWS. The Wimba Collaboration Suite has since expanded its access to persons with disabilities so that hearing and visually-impaired persons can instant message one another by using Wimba Pronto and author course content from their Word® documents with Wimba Create.

By using Wimba Pronto, students and educators with disabilities can have an instant messaging experience that is comparable to the experience of users without disabilities. Wimba Pronto exposes controls and assigns meaningful names and descriptions to be read by leading screen readers, JAWS (for PCs) and VoiceOver (for Macs). For example, the tab key, arrow keys, the space bar, and the Enter key are important elements of Wimba Pronto's keyboard-based navigation to support visually impaired users who do not use a mouse. Further, Pronto has been exposed through the Microsoft Active Accessibility (MSAA) API to ensure it can be used on Windows operating systems to support assistive technologies for users with disabilities. MSAA is a standard and is supported by screen readers such as JAWS & Window-Eyes.

Additionally, Wimba Create, Wimba's course authoring software, even has an automated accessibility checker upon which faculty can rely to ensure their online course content satisfies numerous accessible standards.

When it comes to accessibility within online education, the case can be made that Dr. Sam Slike and Pamela Berman of Bloomsburg University are two of the most innovative instructors in

the world. Dr. Slike and Berman use Wimba Classroom to provide college courses to deaf and hard-of-hearing students. Their innovative courses use a sign language interpreter broadcast through a webcam in conjunction with closed-captioning of spoken lecture material via Caption Colorado. Their work is so remarkable that in Summer 2008 they won the prestigious Excellence in Distance Learning award from the United States Distance Learning Association (USDLA). "We're the only people in world we know of who have a fully online class that is taught synchronously, where I lecture and all my words are coming out of an interpreter's hands or through captioning," says Dr. Slike.⁷

Award Winners (for work with Wimba)	Award
Dr. Cris Guenter, California State University, Chico	National Arts Educator of the Year
Dr. Sam Slike and Pam Berman, Bloomsburg University	United States Distance Learning Association Excellence in Distance Education

The Neil Squire Society, an agency in Canada that provides education access to students with disabilities, also uses Wimba to offer accessible courses. "Having a distance tool that is accessible from any computer workstation with an internet connection has greatly increased the value of our program for our partners and participants," says Chad Leaman, Distance Learning Coordinator, The Neil Squire Society. "Some of our participants are unable to come in on a daily basis due to issues surrounding their disabilities, but with Wimba they are able to log in from home or watch one of the archives. These features have greatly increased our accessibility – making our sessions available anytime, anywhere, for any Canadian with a disability. Wimba increases all learners' retention rates. We are currently using this feature with a deaf participant, and she has commented how this has greatly increased her ability to learn and participate in class." For these students, even not having to drive one extra day a week means volumes in terms of convenience.⁸

III B. Underserved Communities

But Wimba also specifically develops its software to work on all different end-user computers. This helps institutions reach students who traditionally have a difficult time accessing a proper education. "With Wimba, we've increased in-state enrollments by being able to reach many rural students who don't have access to high-bandwidth connections, many of whom previously had to travel to local libraries to go online," says Michelle Rodney, e-Learning Applications Manager at West Virginia University in rural Morgantown, WV.

III C. Out-of-Area

Similarly, in regions as expansive and as sparsely populated like Quebec, educators are finding better ways to connect student and even faculty and administrators. "We teach to

7 Wasowski, Matt. "Instructors of the Deaf and Hard-of-Hearing at Bloomsburg University Win USDLA Teaching Award for their Accessible Classes with Wimba." 2008. <<http://www.wimba.com/community/casestudies.php>>

8 Wasowski, Matt. "Disabled Students Across Canada Excel via the Neil Squire Society and Wimba Classroom's Accessibility." 2008. <<http://www.wimba.com/community/casestudies.php>>

several specialty schools within Montreal, one of which is for young women with children and another in a cultural area of Montreal where, in the past, young women were not encouraged to graduate. These schools lacked math and sciences and we provided access to physics and chemistry,” says Margaret Dupuis, Director of E-Learning, Leading English Education & Resource Network (Quebec). Her colleague Tim Scobie adds, “Western Quebec is building a new board office. Its Assistant Director General was out of town on business so we had a couple of building facilities meetings on Wimba. I had him logged in from a location in the UK, some other folks were in Ottawa and Kingston, and I was in Shawville. I uploaded pictures of floor plans and electronics and we covered all points. The ADG was impressed that we could have a meeting to discuss the design of a new building, make notes on the plans, save them and send them to the contractors. The time saved and the low cost of the meeting introduced this team to a new and very functional way of doing this type of business meeting. They thought you had to use video conferencing to teach online; but now they get it. With the rising cost of travel (approaching \$5/gallon for gasoline), the school boards see the need for commissioners to meet more from home instead of driving in.”

Additionally, Robert Griffin of St. Francis University’s Center of Excellence for Remote and Medically Under-Served Areas, expands the reach and enrollment of his university’s normal in-state population by teaching live online. “I don’t know how I could teach without [Wimba Classroom] these days. For example, the class I happen to be teaching this evening has students in four states and students who travel internationally, and they just don’t miss my classes because of my connection.”⁹

III D. Working Students

More than 40% of today’s post-secondary students are 25 years old or above.¹⁰ Though these working students are commonly referred to as “non-traditional students,” they’re actually close to becoming traditional.

According to a 2002 profile published by the National Center for Education Statistics, of the nearly 7 million post-secondary students who are 25 years or older:

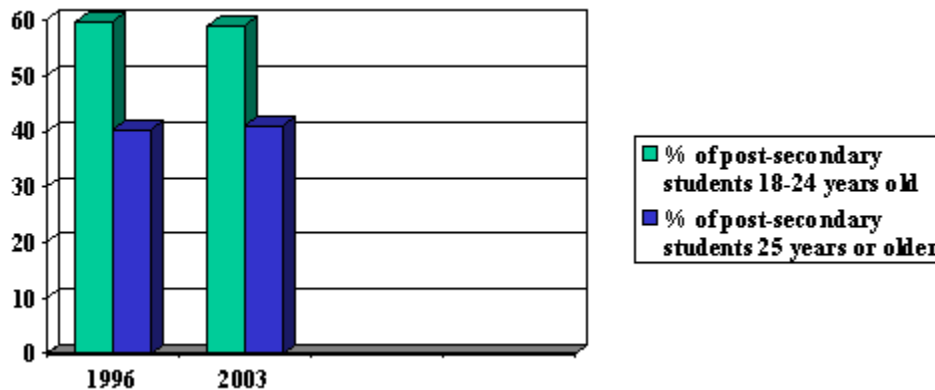
- 57% are married
- 53% support more than one dependent
- 29% are single parents between the age of 30 and 40
- 59.2% are women
- 46% of non-traditional students work full-time
- 39% receive external financial support

Accordingly, schools use Wimba to ensure they reach this large minority of higher education students. For example, when St. Patrick’s College in Dublin quickly tried to ramp-up all facets

9 Griffin, Robert. “An Experimental Inquiry Into The Effectiveness of Virtual Classroom Software In The College Classroom (i.e. This Stuff Really Works).” The Wimba Distinguished Lecture Series (webcast). October 16, 2008.

10 “School Enrollment Social and Economic Characteristics of Students.” U.S. Department of Commerce Economics and Statistics Administration – U.S. Census Bureau. May 2005.

of its programmes in the mid 2000's, it needed to extend the capabilities of its face-to-face courses. It wanted to reach students beyond its immediate region in order to cater to older Irish students, as mature students compose more than 25% of its student population. St. Patrick's began using Wimba Classroom in 2006 to offer additional teacher education courses. According to John Smith, Director of Online Learning at St. Patrick's College, "we needed a virtual classroom solution to facilitate online and distance programmes for post-graduate students of education. Working teachers constitute the majority of our student users."



IV. SAVING TIME, MONEY, PRODUCTIVITY, AND EVEN THE ENVIRONMENT

Of course, online learning still has many advantages in terms of convenience, which in some regards, was the impetus behind online learning altogether. As the number of adult learners throughout the United States continues to grow, many of them still find themselves having to juggle work and home life with school. "The virtual classroom has the ability to reach adult learners who have families and jobs, as well as the power to capture the imagination of young enterprising students as they add sounds and pictures to their writing and discourse," says David Fetterman of the University of North Carolina in the journal, *The Technology Source*. Wimba helps these students – and even the instructors – by saving travel time while still enabling collaboration among different folks.¹¹

IV A. Increased Productivity and Time Savings

This notion of saving time is something that Mike Scheuermann, Director of Online Learning at Drexel University, sees almost every day. "Live chats via Wimba build learning community and serve to enhance and integrate the learning, while I gain an additional dimension with which to judge student performance - all while diminishing my administrative role."

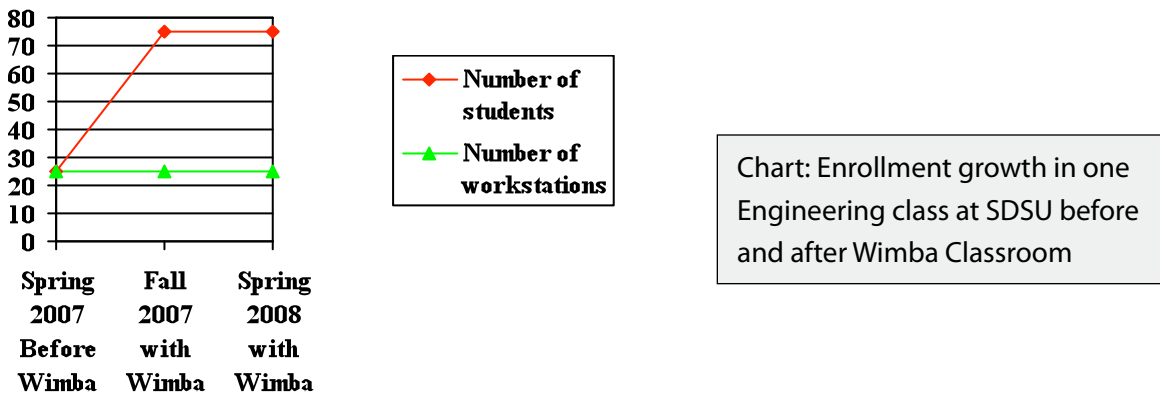
Convenience via collaborative learning also manifests in the form of personal productivity. Whether it's teaching or training faculty or students who'd normally have to spend hours driving, or just responding more quickly to students, Wimba offers significant savings. "We

11 Fetterman, David. "Teaching in the Virtual Classroom at Stanford University." *The Technology Source*. August 1998.

used Wimba for a blended course for 250 teachers in the south of Italy. First we used it in order to train our tutors. Most of them lived in the south of Italy very far from Milan and it was not possible to meet them frequently," said Luciana Castellini, Project Tutor, Università Bocconi (Milan).¹²

"Ivy Tech has a 48-hour policy in terms of instructors to return a student's email. Wimba Pronto has changed this for the better," said Ryan Falquist, Technical Specialist at Ivy Tech Community College.

Further, the University of Wisconsin-Madison's E-Business Institute suggests not only a willingness but a "clear preference" among undergraduates for "lecture capture," the technology that records, streams and stores what happens in the classroom for concurrent or later viewing. The study tackles the much-discussed question of students' preferences for traditional versus online learning with unusual rigor. Many schools rely on archived recordings of Wimba Classroom courses to allow their students to study and review for exams by playing their live classes back verbatim. Students who responded to the survey clearly understood the benefits of lectures that are available as Webcasts, such as making up for missed classes — which, at 93 percent, ranked as the top advantage — with 79% like the idea of "watching lectures on demand for convenience."¹³ And time is money.



IV B. Cost Savings

In October 2008, the Center on Budget and Policy Priorities, a research organization in Washington DC, reported that 21 states were expecting budget shortfalls totaling nearly \$9 billion for the fiscal year that started July 1—an amount the Center expected to grow into early 2009 as the United States deals with the continuing effects of the Wall Street meltdown, the housing slump, high unemployment, and low consumer confidence. As in the previous fiscal year, when 29 states had to close budget gaps totaling \$48 billion, public colleges and universities are sharing across-the-board budget cuts with the multiple agencies that compete for state funds, like prisons, elementary and secondary schools, and health care.¹⁴ Needless to

12 Wasowski, Matt. "Instructors Throughout Italy Train at SDA Bocconi with Wimba." 2008. <<http://www.wimba.com/community/casestudies.php>>

13 Guess, Andy. "I'll Take My Lecture To Go, Please." Inside Higher Ed. September 23, 2008.

14 Kelderman, Eric. "Fresh Round of State Budget Cuts Hits Higher Education." The Chronicle of Higher Education. October 5, 2008.

say, institutions of all shapes, sizes, and missions are looking to cut corners, and Wimba can help. Beyond educating students, there's little more important to a school than its bottom line. In the highly competitive landscape, institutions are currently finding that collaborative technologies allow them to increase their current revenue with making minimal or no changes to its current systems of course offerings. This has been seen at institutions as different as San Diego State University (SDSU), the University of Georgia Cooperative Extension, and the Auckland University of Technology in New Zealand, and in departments as different as Engineering and language learning. This has even been seen in rural West Virginia too.

At SDSU, Engineering professor Dr. Tom Impelluso was granted \$45,000.00 to upgrade his department's computer lab in order to purchase more hardware to expand course enrollment – and turned it down! He found that Wimba allowed him to “obviate the need for hardware” because he could allow students to do their work via application sharing from their homes and offices, instead of having to come into a new computer lab. There were personnel savings as well, “We tripled our enrollment but we do not have to pay additional lecturers to teach the other sections anymore. SDSU pays lecturers \$15,000 per semester. Two lecturers amount to \$30,000. Thus, in sum, Wimba saved our department \$30,000 on lecturers and \$45,000 on hardware, for a total savings of \$75,000.”¹⁵

According to Janet Sylvia, Digital Media Professional at the University of Georgia Cooperative Extension, her department reaped enormous benefits by conducting meetings online via Wimba Classroom instead of having attendees scattered throughout the state of Georgia drive to a central meeting location like they had done prior to Wimba. She says, “The environmental benefits: 46,595 miles less traveled, 2,328 less gallons of gas consumed, 12,804 less pounds of carbon – approximately 5.7 tons – 46,560 less pounds of carbon dioxide – approximately 21 less tons emitted into the air by using Wimba Classroom instead of state-wide travel.” But perhaps most importantly, her department saved more than \$21,000 in gas, mileage reimbursements, and time-away-from-the-office by meeting live online instead of face-to-face.¹⁶

Hohepa Spooner, a Maori lecturer at Auckland University of Technology, found Wimba saved on extensive postage and hardware purchases. “Our university can now truly teach Māori to any student anywhere in the world. No longer do they need to record audio on a cassette and pay for international postage. Now, it's all done efficiently and inexpensively online with Wimba Voice.”

“WVU's live online courses were originally based on satellite broadcasts, but these were expensive and the state no longer wanted to support the system. We started our own program to do live webcasts but that was also expensive because it required someone to be there in person to help with the live stream. But with Wimba we don't need a producer any more

15 Wasowski, Matt. “San Diego State Saves \$75,000 and Triples Enrollment in a Single Course by Using Wimba.” 2008. <<http://www.wimba.com/community/casestudies.php>>

16 Sylvia, Janet. “Economic & Environmental Savings of Wimba and Online Education.” The Wimba Distinguished Lecture Series (webcast). April 9, 2008.

and we have better access for the students," said Barbara L. Ludlow, Ed.D., Professor & Chair, Department of Special Education, West Virginia University.

IV C. Environmental Savings

In addition to saving time and money, Wimba also allows schools to help save the environment. For example, in Summer 2008, Wimba Pronto became exclusively powered by wind, as wind farms now provide the energy that powers all Wimba Pronto servers. While in the grand scheme of things Wimba Pronto is only making a dent in reducing the global carbon footprint, every little bit certainly helps and is appreciated by institutions worldwide. But this isn't the only example of distance learning technologies helping to fight global climate change and even high gas prices.

In the article, *Wimba Classroom Provides Green Alternative to Campus-Based Meetings* by Jane Himmel, Associate Director in Center for Distributed Learning at the University of North Texas, Himmel writes, "High fuel costs and concerns for the environment are causing many of us to reduce the number of trips we make for errands and work. We are fortunate to live in an age when technology makes it possible to conduct many business activities from remote locations when necessary." With the idea of "going green" taking off in 2008, institutions worldwide are measuring the benefits of using Wimba to save gas and the environment.

Similarly, Louis Mays, Professor and Librarian at Southern State Community College, has seen similar environmental benefits by collaborating online. "We're using Wimba Classroom for conducting meetings and staff development workshops on campus. Each of our campuses are approximately 20 miles apart so we do a tremendous amount of traveling. Before Wimba it wasn't uncommon for a faculty member to travel to two or even three campuses a day and also for students to travel from one campus to another."

And by doing things as simple as reducing a student's travel time, schools ensure their students will remain enrolled.

IV D. Retaining More Students

Though many schools still haven't figured out the best means of studying the success of their distance education programs, a few institutions have already made significant in-roads when it comes to measuring success. Two such institutions are the University of Georgia and Great Basin College in Nevada.

Mike Orey is an Associate Professor at the University of Georgia who has taught online courses since the late 1990's. He has used numerous course delivery systems ranging from the early version of WebCT Campus Edition to the full Wimba Collaboration Suite. His experience and research point to tangible success via collaboration. "When I taught asynchronously, I would have about 20% of my students that were either dropping out or failing my online classes, and these were graduate students who successfully went through the K-12 system and successfully got their undergraduate degrees. But by now having these synchronous classes with Wimba, it essentially is the experience with which they've been successful for 16 years. There's virtually no

difference between my online classes that are done in Wimba versus the classes I teach face-to-face.”

Similarly high retention rates were found at Great Basin College (GBC).¹⁷ “Our online courses that use Wimba in addition to the Blackboard environment have a 5-7% higher retention rate than online courses using Blackboard alone. Seven percent is a very meaningful number when students who usually can’t sign up and complete courses are now signing up, completing, and loving their experience,” said Lisa Frazier, Curriculum Development/Instructional Technology at GBC.

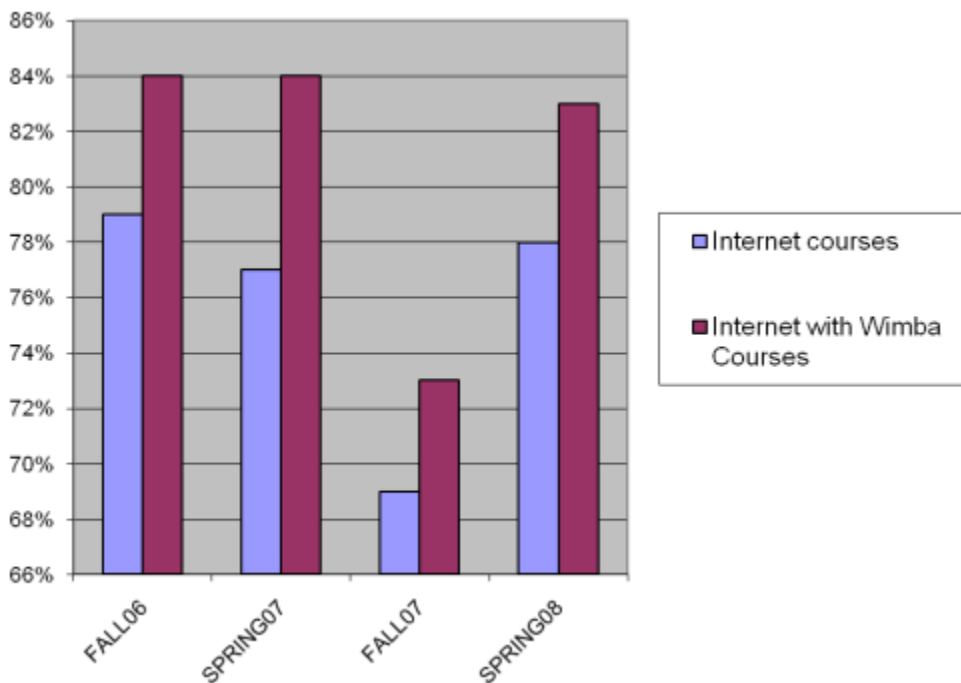


Chart: Comparison of retention rates of online classes at Great Basin College that did not use Wimba (in blue) to those that used Wimba (in red)

IV E. Student Acquisition

While these institutions have found that using collaborative software helps students remain enrolled, it’s equally important to consider the idea of attracting new students. As schools continue to compete harder (e.g. spend more dollars) to acquire new students, they need competitive advantages in order to stand out in the eyes of potentially incoming students. At several varied institutions, Wimba has become that advantage. For instance, the University of Alabama Law School’s Tax Law program actively promotes that fact that it relies on Wimba. The law school has created extensive literature and promotional materials touting the fact that students from anywhere in the world can enroll in this elite program, as they’ll be learning from some of the best tax attorneys and instructors, many of whom live nowhere near Alabama and teach live online from their respective towns. The school has successfully attracted students

17 Frazier, Lisa. “How Using Wimba Supports Cognitive Processes Resulting in Higher Retention Rates.” Presentation at BbWorld 2008 Annual Users Conference. July 2008.

who would otherwise attend a law program in closer proximity to their homes.

Daniel C. Powell, Director of the University of Alabama Law School's Graduate Tax Program, says on its website, "Today, it is much more difficult for law graduates to take additional time off to obtain an LL.M. degree. With work and family commitments, and the pressure of student loans, many lawyers desiring an LL.M. in tax are seeking creative alternatives to the traditional on-campus degree program."¹⁸ Now, his school can acquire more students without having to build new facilities or add more classrooms; it's all done virtually.

This issue of student acquisition is truly a global one, even seen 10,000 miles away in Australia. "I would suggest that probably 50% of the courses that we now offer online were either not practical to offer online before Wimba, or if we did there wasn't a good case to do so. The ability to expand the number of courses offered online translates directly to higher capacity for enrollment and higher levels of revenue," says the Manager of Innovation & Organisational Development at The Central Gippsland Institute of TAFE.

V. IMPROVED STUDENT OUTCOMES

In addition to institutions needing to retain current students, attract new ones, or earn more revenue, a case can be made that the most important metric upon which a school can measure success is the performance of its students. Having students perform successfully is one of the ultimate goals of any school, and now institutions are finding direct correlations between Wimba and improved performance.

For example, in *How Using Wimba Supports Cognitive Processes Resulting In Higher Retention Rates*, a dissertation in progress by Lisa Frazier, MED, Curriculum Development Specialist/ Instructional Technologist at Great Basin College, Frazier finds that, "students who have access to graphics and narrations scored twice as high on [problem-solving tests] than students with only graphics and text." And in four additional studies using problem-solving tests, students with animation and narrations scored 43-69% more on these test than students with animation and text." In other words, the more spoken words and visual elements made available online to students, the better they tend to perform.¹⁹ It's examples such as these which clearly demonstrate that collaboration is key to any student's success, particularly for students learning at a distance.

These sentiments are echoed by students themselves.

"My grades definitely improved [because of using Wimba Classroom]," said Richard Giffins in 2007, then a 12th grader at William Penn Cyber Academy. "I like Wimba because it gives me different ways to learn. I'm more of an audio guy – I'd rather hear it than read it. Hearing

18 Powell, Daniel C. "Message from the Director." University of Alabama Law School website < <http://www.law.ua.edu/llmtax/?re=tax-director> >

19 Frazier, Lisa. "How Using Wimba Supports Cognitive Processes Resulting in Higher Retention Rates." Presentation at BbWorld 2008 Annual Users Conference. July 2008.

my teacher gives me more of an explanation and a better feel for what I'm learning. Wimba attacks all your senses; you can hear, see, and feel what you're learning. Wimba is a foolproof classroom."

Additionally, also within K-12, Dr. Regina Merriwether, Assistant Director of Instructional Technology and Principal of DeKalb OnLine Academy found improved successes as well. "Our students benefit by taking online courses in order to enroll in courses not offered in their local schoolhouse, take acceleration courses, receive course recovery efforts, and accommodate scheduling issues for students who need courses for graduation." And now with Wimba, students who would have had a more difficult path toward graduating can more easily interact with their teachers and get that extra instruction that's so pivotal for younger persons.

By taking advantages of the numerous collaborative elements within technologies such as Wimba Classroom, instructors can easily reach the auditory, visual, and textual learner. Whether engaging students via voice, video, podcasting, application sharing, whiteboarding, polling, or instant messaging, the Wimba Collaboration Suite™ provides the interactive elements that today's learners need to succeed in both blended and pure distance learning environments.

VI. LEARNING 24/7 OUTSIDE OF THE FORMAL CLASSROOM

Even though research clearly demonstrates that students perform better the more they interact with their classmates and instructors both in and out of class, most educational technologies are only used in formal face-to-face and online classes. This is where Wimba Pronto comes in.

VI A. Instant Messaging for Instant Communication

Wimba Pronto is a school-centric instant messenger that enables students and instructors to spontaneously communicate online at any time via chat, voice, video conferencing, and application sharing. Just like students interact with each other in libraries, computer labs, and outdoors while on-campus, Wimba Pronto provides an online means of informal communication. Wimba Pronto has proved to be very valuable for community building, particularly at community colleges and other institutions that have large commuter populations. At these types of institutions, students spend very little time on-campus outside of the exact hours they're in the classroom, and therefore they lose out on many opportunities to exchange ideas with others. In fact, this very point is shown in:

The 2007 Community College Survey of Student Engagement:

- Only 15% of students often or very often discussed ideas from their readings or classes with instructors outside of class
- 47% of students never engaged with faculty outside of class at all
- Only 8% of students say that they have often or very often worked with instructors on activities outside of class

With so little time spent engaging with instructors at community college campuses, Wimba

Pronto has come along to fill this void. “Wimba Pronto is an exciting tool because it lets students connect in an instant way. With Pronto, our students better connect with each other and better with their instructors,” says Eric Kunnen, Coordinator of Instructional Technologies at Grand Rapids Community College.

At Ivy Tech Community College, the largest singly-accredited statewide community college system United States, faculty also see the value of instantly communicating on a whim in order to teach students that normally wouldn't talk to them after class or attend an on-campus office hours session. “It doesn't matter where I'm at, what campus I'm at, if I'm at a McDonald's; wherever. I stopped at a McDonald's while I was at a conference in Tennessee and I chatted for 15 minutes with a student [back in Indiana] about Excel on Pronto,” recalls Bonnie Willy, CIS Professor at Ivy Tech Community College. Willie is a die-hard instructor who uses Wimba Pronto to communicate with her students remotely at almost all hours of the day. It's not unusual for Willie to see a student of hers online at midnight and then Pronto him or her just to check-in.²⁰ This is certainly a perfect example of learning outside of the formal classroom setting.

VI B. Building Connections

D. R. Garrison of the University of Calgary affirms Professor Willy's sentiment in his research study, *Online Collaboration Principles*. Finding a direct correlation between community building and engagement, Garrison states, “The goal is to create a community of inquiry where students are fully engaged in collaboratively constructing meaningful and worthwhile knowledge. From both a theoretical and empirical perspective, there is little question as to the necessity and effectiveness of interaction and collaboration to achieve deep and meaningful learning outcomes.”²¹

Orey at the University of Georgia even says, “I have the most success by using Wimba because it helps me to make those connections with my students, and not only the connections that I make with my students, but the connections the students have with each other.”

A survey released by EDUCAUSE in Fall 2008 revealed that much of the usage of social network sites is coming from the youngest college students. According to EDUCAUSE, 57.5% of students ages 18 and 19 use social networking sites at least 6 hours per week, compared with 38% of students ages 20-24. “Social networks are a constant presence in the lives of students—a way to check in with friends, play games and plan events. They also provide an outlet for self-expression and sharing.” Among students surveyed by Youth Trends, 79% said they used social media to catch up with friends and family.²² Though younger students use social networking now, it's a trend that is increasingly catching on with older students; thus the high adoption of Wimba Pronto among community colleges and large 4-year institutions that want their students to better stay in touch.

20 Wasowski, Matt. “Wimba Builds Community at Grand Rapids Community College.” 2008. <<http://www.wimba.com/community/casestudies.php>>

21 Garrison, D.R. “Online Collaboration Principles.” *Sloan-C Journal*. Volume:10 Issue:1. February 2006.

22 “ECAR Study of Undergraduate Studies and Information Technology, 2008.” EDUCAUSE Center for Applied Research. 2008.

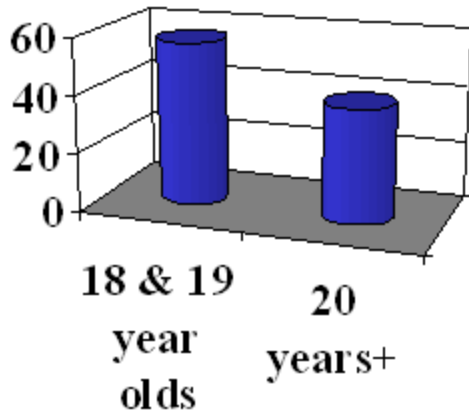


Chart: Percentage of 18 & 19 year-old students who use social networking at least 6 hours/week compared to students 20 years or older

When students connect, it often means that they're learning from each other outside of the traditional or online classroom. Learning isn't confined to the set hours of a classroom. This is a notion that is often overlooked by online learning technologies. "Learning not only takes place in a lecture room but also in a hallway and other places outside of the classroom," explains Dena Faust, Assistant Director of Distance Education/Instructional Design at Alvin Community College outside of Houston. "As our roles change, so will the place where learning takes place. Most of my learning took place in a library or classroom, but now as access to information changes, so does access to people. Because of Web 2.0 tools we create people-to-people access. This involves people working directly with people. We'll make learning go from a passive to a passionate-type of learning."²³

VI C. Global Collaboration

If students learn better the more they interact, it's a natural conclusion that they can learn more if they meet with different persons from different cultures. Thanks to the global reach of Wimba, institutions are now connecting students to folks beyond their community, often to peers and experts across the globe. "We've got 16 photographers based all over the world – from Texas to Istanbul, to Mozambique to Armenia, and the fact we can meet together regularly and look at pictures together in real-time and discuss them, and do this with such a diverse group of practitioners, is quite extraordinary," boasts Paul Lowe, Course Director at University of the Arts London.

8,000 miles away in Hawaii, Hilary Apana-McKee of the Hawaii Department of Education shares a similar sentiment, though on a slightly smaller scale. "Due to the uniqueness of the Hawaiian Islands with over 250 schools dispersed throughout the eight main islands, there was a need for an online collaborative tool. Wimba provides a robust online learning environment that bridges the islands to offer a virtual classroom to both students and teachers."

And what better way to expand the universe of an isolated student than by leveraging new technologies? "I use Wimba to expose my students to other classes, other faculty members, and

23 Faust, Dena. "Communicating in a New Language." The Wimba Distinguished Lecture Series (webcast). September 11, 2008.

other people in other parts of the world,” says Mays of Southern State Community College when asked how he allows his isolated students to see a great global view of the world.

But it’s not just the students who are learning in this manner.

VII. NON-INSTRUCTIONAL USES OF COLLABORATIVE TECHNOLOGIES:

Professional Development and Meetings

While this white paper has outlined the myriad benefits of teaching and learning via collaborative technologies, it’s important to note that non-instructional uses of these technologies can equally benefit. Institutions worldwide regularly rely on live online meetings and professional development training sessions in order to keep staff updated on policy changes and new skills. Any time a group needs to meet but can’t get all its members to one physical location, these technologies become instantly useful.

VII A. Professional Development

As instructors at all grade levels need to constantly improve their teaching and technology skills, many still drive great distances to learning sites. But several institutions – both K-12 and higher education – now put their training sessions online. In a 2001 research report published by Milbrey McLaughlin and Joan Talbert, the duo found that effective high schools and effective departments within high schools were characterized by powerful professional collaboration. And Judith Warren Little advised that effective collaboration between teachers is linked to gains in student achievement, higher quality solutions to problems, increased self-efficacy among all staff, more systematic assistance to beginning teachers, and an expanded pool of ideas, methods, and materials that benefits all teachers.

“To ensure our students learn from technologically savvy teachers, Mid-Pacific Institute faculty take professional development courses to learn how to utilize Wimba and other education technologies that address the needs of Hawaii’s 21st century online learners,” says Robert McIntosh, Associate Technology Director of Hawaii’s Mid-Pacific Institute.

“Quebec is now moving away from traditional grade levels and is moving toward grouping students together. We’re now using ‘cycles.’ Secondary Cycle 1 is grades 7 and 8 and Cycle 2 is grades 9, 10, and 11. It changes how teaching is done so we use Wimba to teach everyone how to teach differently. We’ve been meeting online to develop new teaching styles,” says Margaret Dupuis, Director of E-Learning, Leading English Education & Resource Network.²⁴

And at the Cobb Country School District suburban Atlanta, its eSchool offers web-based professional development meetings for teacher and leadership groups within the district. This reaches beyond K-12 and into higher education. “Our [Office of Information Technology (OIT)] training has a new, convenient way for faculty to learn how to use WVU’s online learning

24 Wasowski, Matt. “Quebec-wide K-12 Classes, School Board Meetings, Tutoring, and even Acrobats Thrive with Wimba and LEARN.” 2008. <<http://www.wimba.com/community/casestudies.php>>

tools: eCampus, Respondus, Studymate, and Turnitin. Kathy Fletcher, OIT's training manager, will host four faculty development sessions in online webinars using Wimba Classroom starting August 29," says Kathy Fletcher of West Virginia University.

VII B. Administrative Meetings

Finally, it's not atypical for Wimba to be used for meetings within a school, region, or continent. Institutions worldwide – even Wimba itself – utilize Wimba Classroom and Wimba Pronto to meet online about everything ranging from changes in organization policies to institutional changes and updates. Non-instructional uses of these technologies is quite common.

"Magnolia Independent School District utilizes Wimba Classroom for meetings at every level of the district, serving the upper administration, the curriculum department, the support personnel, and the teachers with professional development needs," says Charlie Brown, Distance Learning Facilitator, Magnolia Independent School District (TX).

VIII. CONCLUSION

Academic research clearly states that adding collaborative elements to online courses results in enhanced communication, improved student outcomes, higher retention rates, additional revenue streams, and even a greener planet. As Giffins said, Wimba attacks all of a student's senses, thereby creating a more natural way to learn in a hybrid or distance learning environment. Online learning as we now know it is barely a decade old, so as programs worldwide evolve and mature, they'll do so by finding better ways for instructors to collaborate and communicate with their students. Formal education has existed for millennia, with communication being the foundation, and now, with collaborative technologies such as the Wimba Collaboration Suite, multi-modal communication will continue to be the catalyst to spur young minds and improve people's lives through dynamic education that can only be achieved through meaningful interaction.

