
Strategizing the Design and Implementation of a Language Center for the Twenty-first Century

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Abstract

The language center, (a.k.a. language laboratory) has undergone tremendous transformation in the past fifty years, but the general mission of the center has remained constant. Whether called a resource center, media center, or CALL center, the facility provides a place for students who are studying a language other than their own (L2) to practice and learn. What has changed inside the language center over the years is the variety of resources and delivery formats that can be used to bring language to the learner. For institutions that are planning to update or construct a state-of-the-art language facility, the amount of resources and the expense of putting together an infrastructure to support these resources can be daunting. In order to meet this challenge, language practitioners and administrators at these institutions can benefit from knowing what kinds of questions and issues need to be raised before and during the construction process. This paper presents a five-phase plan used at Bentley College (USA) for its Center for Languages and International Collaboration (CLIC) that opened in January 2001. In each of the five phases, a specific strategy is outlined to meet the challenges of updating or designing the new language center. Some of the topics addressed include building a team of players, balancing pedagogical value and investment costs, and making technical, pedagogical, managerial, and design recommendations. The case study illustrates that at the core of the success of the strategic framework is the collaborative integration of expertise among administrators, technologists, and faculty.

Introduction

Language resource center, media center, and CALL center are terms used today to describe a facility where students who are studying a language other than their own (L2) can go to practice and learn. Fifty years ago, the common term was language laboratory, whose driving force emanated from behavioral theory that saw language as a mnemonic process. Back then, L2 learning was seen as a science of stimulus and response, and the laboratory was an ideal setting in which to manufacture language production. Since that time, linguists have challenged that theory and developed others (Chomsky

1965,1976; Krashen, 1981; Kramsch 2001; Thatcher 2000). A paradigm shift in L2 production accompanied these new theories about L2 learning, placing less emphasis on grammar-based competency and more emphasis on communicative and cultural competencies.

The shift in L2 production also prompted change in the kinds of resources that would be used to develop these new competencies. In the 1950s, reel-to-reel, linear analog presentation of language in audio and filmstrips was used to develop aural comprehension, which was soon followed in the 1960s by omnipresent television. By the end of the 1970s, VCR technology allowed off-air recording of television segments and full-length programs. This technology allowed the instructor and/or student to playback televised segments in a non-linear sequence, something that traditional television and film could not do. Not only could students hear authentic language in its natural context, the language could be broken into various segments for additional practice for certain kinds of pedagogical purposes. However, the teacher or text guides more commonly dictated the way in which these segments were presented. In the late 1980s, the introduction of the personal computer dramatically shifted the agency of control from the teacher to the language learner who could now pick and choose lessons, as well as determine how much time to spend on each lesson.

Today, digital technology, high-speed networks, and the Internet have unleashed new potential for language learners and practitioners, allowing for synchronous and asynchronous access to authentic production of the target language. Students have more and more opportunity to hear and see L2 in action in authentic settings via live newscasts, international satellite programming, and online computer conferencing. At the same time, well-designed multimedia instructional programs allow students to hone L2 skills including listening and speaking (speech recognition), reading, grammar, and writing. Some of these instructional programs also include built-in, personalized tracking systems, so that professors can follow their students' progress, or students can monitor their own progress in a self-paced learning environment. Pedagogically superior programs include task-based activities in which students can build their own knowledge base through play and practice with the language. Still other programs offer access to tutoring materials that provide grammar/vocabulary explanation, and when appropriate, cultural explanations. Some programs actually provide access to tutors online in real-time for additional fees.

This wide array of L2 resources and delivery formats has helped to

reposition the language center as a dynamic and vital learning environment so different from the earlier mnemonic laboratory. While the change is exciting, it also makes the task of constructing a new language center or updating an existing facility even more challenging. For institutions, administrators and faculty at these institutions, the primary challenge is to select resources and technology that will meet the pedagogical objectives of their language programs within the financial constraints of a budget.

The paper to follow describes how one institution, Bentley College, chose to meet this challenge. What has emerged from Bentley's experience is a five-part strategy that other institutions can use to facilitate the construction of their language center for the 21st century. While the institutional infrastructure at Bentley may not mirror exactly that of other institutions, the five-part strategy sets forth a broad framework that can be applied across institutions and address the important issues of funding, implementation, and long-term success.

The Setting

In Spring 2000, the administration of Bentley College, a business school of 4,200 undergraduates and 1,300 graduate students near Boston, Massachusetts, approved funding for the construction of a new language facility. Generally speaking, U.S. business schools are not known for having strong language departments, and even fewer of these professional schools have language centers. At Bentley, there is no language requirement; nonetheless, on average between 260-300 undergraduate students are enrolled in a modern language courses each semester.¹

Until 1984, Bentley College did not teach modern languages, but as more and more U.S. companies began to enter the international arena, the school decided to offer modern language courses for communication purposes to its students in order to make them more marketable graduates. Since 1984, the Modern Language (ML) Department has experienced several major changes. Previously housed in the English Department, the department became autonomous in 1988. At the same time, the first language center was built. The Modern Language Learning Center was comprised of a 20-station, Tandberg 512 Language console system and several Apple 2E computers. Over the years modest upgrades were made. By the end of the 1990s, the center had 20 Power Macintosh computers on its own local area network (LAN), all of which were linked to the campus-wide network and beyond—the World Wide Web.

In 1998, Bentley College hired a new president who envisioned a new

role for the school. The new president outlined a 4-year plan in which the school would strive for national and international recognition as “the Business School for the Information Age”. An entirely new curriculum emerged in which technology was its driver, but not the content determiner. Coinciding with the technology push was the desire to offer business students a strong exposure to the liberal arts, which would round out their college education. The president described this business education model as “the intersection of business, technology and the arts and sciences.” The faculty in the arts and sciences saw this new model as a way of bringing the arts and sciences and business disciplines closer. The modern language faculty saw technology as the catalyst for the connection, and a new language center as one means of facilitating such a connection. So the quest for a new language center began. Two years later, the Center for Languages and International Collaboration opened and soon thereafter received national attention.² (See Appendix A for layout and facility description).

The Players

In undertaking the construction of a new language facility or updating an old one, there are several key players in institutions of higher education who need to become involved in the process. The key players usually come from three different areas: administration, faculty, and technology. While the players’ job titles may vary across institutions, their responsibilities are similar in many cases, particularly with regard to new campus construction. Each one of the key players may work in one or more of five phases of a project: Approval and Funding; Design and Construction; Implementation; On-going Maintenance, and On-going Support. (See Table 1 below).

Phase 1 Approval & Funding process	Phase 2 Design & Construction	Phase 3 Implementation	Phase 4 Ongoing Maintenance	Phase 5 Ongoing Support
Academic Dean (s) Chair of Modern Languages Center Director or equivalent VP of Finance	Academic Dean(s) Center Director Physical Plant Purchasing	Center Director Chair of Modern Languages Faculty	Technology staff Center Director Faculty Networks & Telecommuni- cations	Center Director Development Office Sponsored Programs Faculty Academic Dean(s)
Board of Trustees	Networks & Telecommuni- cations			School-wide Technology Director

Table 1 - Players by project phase

Depending on what the players have to offer, their contribution and role in the process may vary over time. For example, the department chair may need to devote a great deal of energy at the outset to getting the approval and funding for the new facility (Phase 1); later on, his or her role might be to draw faculty to the center (Phase 3). In addition, some of the topics within each phase – start-up and operating costs, design and construction choices, curriculum integration, and marketing of the center – can engage different players at different times. Most importantly, the success of the project relies heavily on the integration and collaboration of all three groups of players throughout the project phases.

The Strategy

Each of the five phases of the project requires specific strategies. The strategies include:

- Making the case for need (Phase 1)
- Developing a design team (Phase 2)
- Making full use of the facility (Phase 3)
- Assessing the success of the facility (Phase 4)
- Anticipating future needs (Phase 5)

While specific strategies need to be employed in each phase, phases can overlap and some strategies in one phase may complement another strategy in a different phase. Therefore, the entire strategy for the project should be considered as iterative and collaborative.

Phase 1 Strategy: Making the case for need

Establishing a reputation beforehand

Putting into place a state-of-the-art language facility is an expensive undertaking. While faculty and administration may initially applaud the idea, the economic feasibility of the project may soon squelch their enthusiasm. Therefore, a convincing argument for need must be made to the people or funding agency that will underwrite the costs. In order to proceed from idea to action, the person or persons initiating the project (most likely members of a language faculty and academic deans) should be well prepared to answer two tough questions:

- How will the facility improve upon the present language program?
- How will the costs justify the investment?

In answering these questions, the responsible parties need to be well versed in their own programs and success stories. The language

department should already have a well-framed mission, evidence that the mission is being met, and concrete examples of the department's successes. These can include evidence of faculty excellence as illustrated by awards in teaching, publications, innovative departmental initiatives in the local (campus-wide), national and international arenas, and evidence that technology has played some part in those successes.

At Bentley, the reputation of the modern language faculty as innovators in education began in the mid 1990s. In 1996, two ML professors received the Bentley prize for Innovation in Education for their multimedia project, *Haiti: La Vie et La Culture*, which used technology to enhance the intermediate French curriculum and supported a campus-wide initiative to address issues of diversity in the classroom. In 1998, the Board of Trustees recognized the center and its director for the new, online Multimedia Jukebox. Designed to make aural-oral comprehension practice available to students, the Jukebox streamed audio files in French, Spanish, and Italian to students on or off-campus anytime. It was the first time streaming technology was used to enhance curriculum at Bentley. In 2000, the director of the language center was one of four faculty (two in arts and sciences and two in business) named as a Davis Scholar.³ In this role, the four faculty members were given course release time to train other faculty in the use of technology for pedagogical purposes.

Technology-related successes are important because they often bring increased visibility to a department, whether large or small, and can help to attract the attention of the administration or funding agencies seeking to fund technology-related projects. This was the case for the ML department at Bentley, whose full time faculty numbers four.

Building a team of supporters across departments/ administration

Collaboration across departments and administrative sectors is another way to promote the case for a new facility. In general, institutions look to this kind of collaboration as being innovative and cost-efficient simultaneously. For example, if faculty members from two different departments can use the same investment in different ways, the value-added element of the proposed center makes the costs more palatable for those funding the endeavor. In creating a center to support a range of disciplines, the argument should be made that interdisciplinary courses—often involving faculty from multiple departments—have been shown to provide some of the best learning experiences for students (Light, 2001). Describing the ways in which

services can be used within and across disciplines can be a powerfully persuasive tool, as it underscores the value that the center can add to the faculty's and students' educational experiences.

Interdisciplinary teaching has been a common pedagogical practice at Bentley. Professors from management and liberal arts often team-teach, and courses are designated interdisciplinary (ID) by the registrar. The ML Department offers an MBA course, the Impact of Language on Business and Technology in Europe. The course accords equal focus to culture, technology and business and is team-taught by an ML professor and OM (operations management) professor. Additionally, several ML faculty members also teach in the International Studies (INT) Department. This kind of interdisciplinary teaching helped to demonstrate to the Administration that the ML Department was committed to innovative teaching and collaboration, and capable of taking on the challenges of the new center.

Having a vision and a mission for the facility

Knowing and articulating what the mission of the new facility will be is crucial. The mission of the facility should be separate from the overall mission of the language department, but should respect and reflect the fundamental ideas of the department. This strategy will give an individual identity to the facility on campus that will extend off-campus later on.

At Bentley, members of the ML and INT Departments and the Department of Education Abroad joined forces to define the mission of the center as a facility "to support Modern Languages and International Studies courses and to make the study of languages and culture an integral part of the Bentley community." They named the new facility the Center for Languages and International Collaboration (CLIC) to emphasize their cooperation and partnership. In making the case to the Administration, several members from each of the three departments, presented concrete ways in which they could use the center, including:

- Conferencing with international exchange partners for orientation purposes.
- Housing and disseminating cultural materials for INT courses.
- Locating course-specific software for INT courses, such as ArcView.⁴
- Sharing the expertise of language tutors in INT courses for cultural learning.
- Sharing resources, videos, DVDs, and cultural materials for

language instruction, INT courses, and orientation for Education Abroad student programs.

- Co-sponsoring interdisciplinary events: film series, speakers' series, and special lectures.

When entering CLIC, the environment exudes the spirit of international; tutors greet users and visitors in any of five languages taught at Bentley (French, Spanish, Italian, Chinese, Japanese, and Arabic). Images from around the world are visible anywhere in the center, emanating from two large plasma screens and wall television that continuously broadcast news and information from across the globe. In addition, people outside the center can select an icon on a touch-screen control panel to listen to the satellite programming that they are seeing through the glass walls. The open-space floor plan, the ease of access to all resources, and the international student staff all contribute to the primary mission of CLIC: that is, to see language and culture as not being mutually exclusive.

Identifying the decision makers to whom to make the case for need is imperative to know who will approve the planning and the creation of the new facility; the perspective of these decision makers must be considered throughout the planning phase. At the beginning of the process, certain administrators may enter into the discussions, but in reality they may not have much to do with the final approval. That decision may ultimately rest with the President and/or Board of Overseers. Yet, to gain the attention of the final decision maker(s), everyone who may be involved in the process should understand what the mission of the center will be and how the center will meet that mission and benefit the academic community at-large. In this way, during the final leg of approval, the proposed project will meet fewer obstacles and be more likely to have a positive outcome.

Presenting the case

Timing is important when presenting the case, but there are clues as to when best to initiate the proposed project. Recently, many institutions have undertaken new campus initiatives. For some institutions, the new initiatives have centered on improving their technology infrastructure and creating new departments. For others, re-structuring existing departments to cut operating costs has been part of their new plan. While the latter circumstance might foreshadow a less than positive response to the request for a new language facility, an argument can and should be made that underscores some of the cost-saving features such a facility might offer. Besides, sharing the facility with other departments, the technology could support broader

institutional initiatives such as distance education programs that may bring additional financial benefits in the long-term (Knutel & Wiggins, 2001; Lockwood & Joley, 2001). Whatever the institutional scenario, the proposal should coincide with the efforts that the school is trying to achieve, and articulate how the new facility can contribute to those efforts. Then, the case for a new language facility should be presented as soon as possible and repeatedly.

Selecting the best forum in which to propose the idea is also strategically important. In fact, there may be several forums in which the groundwork may be laid for a formal proposal. Some examples of possible forums might include informal networking within the academic and administrative communities and at academic committee meetings.

Developing the proposal

Once it appears that approval will be forthcoming, thought should be given to forming a small working committee that will write the proposal. Members of the committee should include at a minimum the chair of the ML Department and the Director of the center (or someone who could fill that role until a permanent person is hired from the outside or selected from the faculty). Members of the faculty, as well as the members of technology side of the school, should be solicited for ideas about what they want and what is possible. How long the proposal process will take depends on how well the idea of a having a new language center on campus is received. Because Bentley's ML faculty was well recognized on campus and because there was some space already available for some kind of new facility, the time frame for the proposal process was relatively short. Discussions began in May 2000, several rounds of the proposal were made in June and final approval for the project came in mid-August 2000.

Phase 2 Strategy: Developing the Design

This stage is perhaps the most critical because it involves forming a design team whose principal tasks include examining both theory and application in the context of language teaching and learning. It also includes considering the needs of the school, the faculty, and the students in the context of addressing budgetary parameters.

Forming the design team

An internal design team, that is, members of the institution, will identify the basic requirements for the design and technology of the center, keeping in mind the overall needs of the institution and its educational mission. Therefore, it is important that the internal design

team be set up as soon after the approval as possible. The team members should include at least one representative from the language department and from the department of facilities, the director of the proposed new center (or someone who might fill that role), the director of on-campus technologies, and a dean of academics.

At Bentley, the internal design team consisted of the:

- Dean of Academics and Associate Dean of Faculty (same person)
- Director of CLIC
- Director of Academic Technology
- Assistant Director of Academic Technology
- Project Manager for on-campus construction.

Using theory/research to help guide technology choices

Educational research and theory have, in large part, prompted changes, innovations, and new initiatives in L2 curriculum design and classroom instruction through the years. The same thoughtful process should also be applied to designing a new language facility; certain technologies may do a better job at language delivery than others and might enhance certain skills more than others. For example, research has shown that captioning in video is helpful for comprehension and retention (Csapo-Sweet, 1990; Markham, 1989; Neuman & Kosinken, 1990). In choosing video and satellite delivery systems and resources, captioning capabilities should be included. Although video conferencing has only recently been introduced in language instruction, early indications show that it helps students acquire knowledge about the grammatical and culturally based idiosyncrasies of the target language (Gourvès-Hayward & Simpson, 2001; Lamy & Shield, 2001). This is knowledge that rarely finds its teachable moment in the classroom. Therefore, even though video conferencing might seem too costly for a start-up center, it should be given serious consideration. Other aspects of design that might be considered by the team are peer tutoring programs and student and administrative tracking systems. Whatever design feature is under consideration, each one should receive the same thoughtful evaluation. In the long run, the information garnered from this process will help determine how much money should be allocated to each feature.

Making visits to other language centers

One way to make informed decisions about designing a language center is to know what is available and what has worked for other

institutions. Visiting other centers is one way to obtain this kind of information. Several members of Bentley's design team visited nearby university language centers—the Language Learning and Resource Center at MIT and the undergraduate Multimedia Language Center at Harvard University—and spoke with colleagues at Brandeis and Tufts University. Other members attended regional conferences. During this information-gathering period, the team was able to identify network and hardware issues, and determine more precisely what technology and layout features would best suit the needs of the Bentley language program.

The topics addressed during the visits were:

- Computer platforms and software compatibility/choices
- Computer configurations (speed, HD space, CD/DVD options)
- Network infrastructure
- Servers (how many and for what purpose)
- Satellite subscriptions
- Video-conferencing systems
- Language console systems
- Administrative management of technology
- Physical layout

In evaluating facilities of other institutions, the team should carefully consider the size of the program, the school's curriculum, including the languages and levels taught; and the mission of the department and of the facility at each institution. Ideally, these factors should have played a significant role in the design of a particular center. However, one institution's choices may not always apply to another institution's proposed project. For example, at MIT's Language Center, a fairly large investment was made in acquiring technology and hiring personnel to assist faculty in developing their own multimedia projects. While the research and development area of this center was set apart from the student-designated areas of the center, it was still housed on the same floor in adjacent space and technology was funded through the same budget. This MIT visit influenced Bentley's decision not to include a research and development space within the physical space of the center. Instead, Bentley decided to locate this activity in the Academic Technology Center (ATC), the hub of its academic research and development activities where there was more space and more technical support available. The research and development costs are being shared between the two centers.

If on-site visits are not possible, another strategy is to network with

other colleagues at conferences and via the Internet, or through user groups such as SIG groups of various professional organizations. Their ideas can be useful not only in informing design choices, but also in framing or developing the mission as described in Phase 1.

Assessing the needs for faculty and students

Having an understanding about what faculty value technologically and pedagogically is also critical for the future success of the center. At the same time, understanding the faculty's motivation for their choices is critical as faculty may choose the more familiar technology options out of fear, inflexibility, apathy, or lack of knowledge, thereby leaving out some important state-of-the-art choices. Technology-based innovation is at the core of the language center for the 21st century, so faculty should be given the opportunity to see and be offered hands-on exposure when asked to make design recommendations. One way to accomplish this is to invite faculty from neighboring schools to make presentations about how they have used technology or resources in their own language centers. Another way is to direct faculty to language-related web sites that illustrate the application of technology in teaching and learning. Still another way is to invite publishers on campus who are willing to illustrate what they or their technology-related products can do. Making this effort with faculty during the design phase is important since it is the faculty who ultimately connects the students to the center.

Students are generally more adept at trying new things than faculty, especially technology-based innovations. Consequently, students are often more willing to offer insights as to what they want and how they want it delivered. They are also willing to provide also provide useful information about how much time they want to spend on practice and learning tasks. To date, one thing is sure, students want on-demand and reliable delivery, clearly putting demand on network infrastructure. Therefore, a good deal of attention and funds should be invested in system design (e.g., a language console system, satellite programming system, Internet access) and system integration (interconnections of all the systems whenever possible for seamless accessibility) because they are the backbone for the delivery of technology-based resources.

Determining initial funding/start-up costs

"How much will the facility cost?" "Where will the money come from?" These are the two most common questions from Administration, whose job it is to ask these questions. They will want

comparative information from other schools on the costs of similar facilities and sources of funding. Generally speaking, most funding in US institutions comes from one of five sources, or a combination of any one of the five:

(1) the institution's capital funds; (2) an alumni gift; (3) a corporate sponsor; (4) a non-governmental organization; or (5) a federal funding agency. The institution's Departments of Development and/or Sponsored Programs Department can help in pinning down start-up funds. These departments can identify potential corporate sponsorship and local, state, and federal funding agencies, and can also provide support in proposal writing.

Pinpointing location, space, and layout

Space on college campuses is often limited, but when deciding where to locate a new facility, visibility should be a major consideration. Visibility helps to make the center a focal point on campus, and can be used as a marketing showcase tool for potential students—that is, for high school students taking college tours.

Asking for the ideal in terms of location and size at the outset is a wise strategy even though the final choice of location might not reflect the initial request. One possible strategy is to consider if the institution is freeing up space that already has a robust, intact network infrastructure in place. Taking on this kind of space will cut costs tremendously down the road, freeing up capital that can be spent on other aspects of the center.

At the same time, there are trade-offs that need to be considered when looking for the ideal space. If a space is ideal in terms of visibility for example, accommodations could be made in terms of space requirements and floor design. At Bentley, the space for the new center was considerably smaller than the original center. However, it was considered prime campus real estate with much more student-faculty traffic. To accommodate this reduction in space, research and development was housed, as mentioned earlier, in the adjacent Academic Technology Center. Physical space earmarked for storage in the older center was also considerably reduced in the new floor plan. Many of the stored materials—printed language related-resources, analog tapes, and administrative scheduling—were migrated to a more space-efficient digital format.

If a space has not yet been earmarked for the new facility, a preliminary blueprint can be executed to identify how the ideal center might look. The blueprint may help to trigger thinking about what space might

work. In either scenario, the desired number of computers and additional technology and other workspace requirements should be identified as soon as possible.

Hiring outside design consultants

Once a decision has been made about the space/location of the center, a team of outside experts should be brought in to evaluate the initial project plans and to estimate costs. While the cost of retaining outside consultants may seem high for some institutions, the expert advice that they give may prevent some very serious and costly mistakes down the road. This is especially true if building permits, codes, and inspections are rigorous in the locality. These experts should come from three areas: Design and Construction, Systems Architecture and Design, and Systems Integration. If possible, the school should consider hiring some of these experts with the idea that they will collaborate with the internal design team.

At Bentley, the design and construction firm provided certified floor plans, limited demolition, electrical work and wiring, millwork, stud and drywall, HVAC, carpeting and signage. The systems architecture and design firm provided microphones and accessories; audio control and modification equipment; an assistive listening system; loudspeakers; video source equipment for both US and international format; video display equipment; video routing and amplification; audiovisual control and computer equipment; satellite equipment; and racks, cables, and connectors. The system integration firm was hired to install and integrate the systems and equipment. The firm also programmed touch-screen panels to integrate and manage all display technology, including video and computer output, video-conferencing, and satellite programming.

Once the construction phase of the project is underway, members of the internal and external teams should communicate with each other on a regular basis to insure that everyone's expectations are being met.

Managing operational costs/maintenance

The start-up costs for a new facility do not include the annual operating costs that will be needed to maintain the facility over time. These costs include technology maintenance and purchase of new materials (DVDs, software, videos, dictionaries, texts, satellite subscriptions), as well as staff salaries.

One way to keep maintenance costs minimal is to identify specific

school-vendor agreements that could also be used in the language center, for example, site license fees, maintenance contracts, and equipment replacement contracts. This earmarking of school vendor agreements can and should be addressed in the early stages of planning and design and costs analysis. Another way of minimizing technology-related expenses is to train the school media technicians on how to maintain the new equipment, as part of the installation process. For example, Bentley's technicians worked in tandem with the technicians employed by the language console vendor during the installation of the equipment, which also lowered installation costs. At the beginning and closing of each semester, this same in-house tech team conducts maintenance check-ups at the beginning and closing of each semester to avoid major costly breakdowns during the semester.

When purchasing software programs for the first time, an agreement should be made at the time of purchase regarding costs of future upgrades. Subscriptions to online resources, such as foreign newspapers and magazines, and satellite programming, should fall under educational pricing, as should all other future purchases for textbooks and the like. Depending on the school policy regarding student user fees, some of these costs could be defrayed and charged to students enrolled in courses that use the facility.

Phase 3 Strategy: Making full use of the facility

Attracting faculty

One of the most challenging aspects to introducing innovation into a curriculum is to entice faculty to participate in the process. In the case of a state-of-the-art language center, the faculty is being presented with new tools that can enhance course curricula, which can include cultural, literary, and L2 materials. One way to engage faculty is to demonstrate how these new tools can be used and what tools can address certain language skills or support specific competencies. Pre-semester workshops are also very helpful, but often poorly attended unless there is some financial incentive. The department chair should request incentive funds from the Administration. Another strategy is to invite a specialist in the field to prompt interest or to invite a regional or national organization (such as ACTFL, TESOL, IALLT) to give pre-conference workshops on campus on the integration of technology-based resources and language curriculum. Very often, arrangements can be made to have faculty attend free-of-charge.

Choosing the right person to direct the facility is pivotal for the center's success, especially among faculty. Hiring a techie turned academic is not always the best choice because that type of expert,

however unintentionally, can alienate tech-challenged faculty who are less than comfortable with state-of-the-art innovation. A person who can work with faculty and administration and not exclusively as a technologist is what is needed. The ideal person should be a faculty member well versed in technology, and who can make other faculty comfortable with the innovative delivery tools and guide them on how best to use the facility from a pedagogical perspective. The director's alignment and engagement with faculty are essential for the future success of the center.

Knowing that the school is willing to invest in the faculty to make the facility a success is also very important. Transforming this willingness into action is the challenge. Some form of incentive is needed; most often monetary, but there are other avenues to interest faculty. At Bentley, both the management of CLIC and the Dean of Academics have supported faculty through these efforts:

- Summer stipends for curriculum development.
- Faculty development grants to attend conferences and off-campus workshops for additional training.
- Access to on-campus technical teams for web and other online delivery of faculty materials.
- Free training in all types of web delivery programs through Client Service Training Workshops.
- Free language practice with native-speaking tutors on an individual basis throughout the year. This includes ML and INT professors who are interested in learning another language.

To date, faculty members have embarked on various integrations paths. Some have developed new multimedia programs for beginning Japanese and Spanish and intermediate Italian. Others have used web resources and satellite broadcasting to re-structure the content of the language conversations assignments that students must complete with ML tutors at the center. The INT faculty has used these same tutors as resources for their students to conduct "culture" interviews. They have also assigned students to watch programming (from satellite) delivered in a language that they do not speak to evaluate paralinguistic cues across different cultural settings. Still other faculty members have used video and computer conferencing to get students across the globe collaborating on specific task-based activities that engage students for as much as three or four weeks.⁵

Attracting students and the campus-wide community

Enticing students to use the center requires a very different strategy

than that for faculty. Many students rush to visit the newest facility on campus. The primary challenge is to keep the students coming, and to keep them coming for the intended purpose of the facility. Open houses at the beginning of the semester and orientation sessions that highlight the special features and procedures of the facility are two ways to accomplish that.

Offering special programs such as monthly film series or one-time events, such as video-conferencing with partnered schools, international organizations, and/or international businesses can attract additional campus and community interest. Keeping the campus press abreast of the center's activities and services is yet another conduit to spur interest among the community at-large.

Finally, making the center as user-friendly as possible, which includes creating ease and speed of access to available resources such as online assignments, will also facilitate ongoing use for all who are interested or required to use the center.

Developing an on-campus technical team

The director should develop an on-campus technology team that can advise on the ongoing tech-specific demands of the center. As indicated earlier, part of the team can be formed during the construction phase. The technical team should, if possible, also be composed of experts from across departments: training and networks, telecommunications, and software and web development, all of which will contribute to more complete, ongoing support for the center. In this way, the director can concentrate on the academic needs of the faculty and learners. If student scholarships are available for student-assistantships, requesting a student assistant to become a part of the tech team is also advisable and practical from a financial point of view. At the same time, the student assistant may generate even more interest among his or her peers to use the center.

Hiring a student staff

Every center should try to hire students under the umbrella of a work-study program to help in the day-to-day operations of the center. Hiring a staff comprised of international students is ideal as it will help to underscore the mission of the facility: both language and culture will emanate. These students must receive in-depth training on all aspects of the center's services and the general operation of the various technologies so that the user friendliness permeates every aspect of the center; in this way, the users will feel more welcomed and more willing to return.

Phase 4 Strategy: Assessment and Modification

Tracking student-faculty use

Keeping track of how often and in which ways learners and faculty make use of the facility is strategically important in maintaining ongoing institutional support. This means of assessment translates into frequency numbers that may be used to inform top-level administrators of the importance of the facility to the students and school-wide community. High usage also helps to validate the financial investment made by the school. In the future, these data may be used to support requests for long term funding from corporate sponsors or large funding organizations. A secondary benefit is that faculty can use the same data to modify their curriculum by knowing which resources students use and for what purposes.

There are a variety of ways to track student use depending on what kind of data is needed and for what purposes. For example, if the only data needed pertains to frequency of use in order to obtain future funding, a fairly simple, back-end tracking system can be set up on student login. However, if faculty needs data for student assessment in the form of portfolios or traditional report formats, a more complex tracking system must be employed. At Bentley, the director and a system analyst worked together to create an in-house program in Microsoft SQL and Cold Fusion⁶ to schedule and track students' work and assignments, as well as to track student frequency.

Seeking feedback from users

Students often describe their learning experience through end-of-the-semester evaluations in their language courses. The evaluations should include questions about the center. Despite those who feel that self-reporting data can be unreliable, students' observations in this case can help improve the performance of the center. The information gleaned and analyzed from the feedback can inform the faculty and the director as to whether or not any resources and curriculum adjustments are necessary. In addition, observing how students interact and manipulate the tools of the center can also be used to help modify and improve the center's procedures and technology delivery.

Phase 5 Strategy: Anticipation of Future Needs

Maintaining discussions with faculty and administration

Keeping all players in the loop through monthly newsletters, workshops, and special events at the center is highly recommended. When the time comes to revisit future renovations and/or additions of resources, the continual dialogue will make the discussions and decisions easier.

Keeping abreast of current technology trends

Knowing “what’s out there” in terms of state-of-the-art technology and its application to language learning should mainly be the responsibility of the director of the center. Nevertheless, he or she should encourage faculty and student employees to recommend new resources. Conferences that focus specifically on technology, rather than language, are especially informative.⁷ Finding out how other disciplines are using technology as tools to enhance curriculum is yet another way to stay informed and innovative because the director can visualize new ways to integrate technology in the center.

At Bentley, the school-wide technology center (ATC) periodically hosts brown-bag lunches at which faculty members present their latest technology-based innovation for student learning. Additionally, directors who manage similar centers on campus meet at least once a semester to discuss administrative tools and pedagogical innovations they have adopted, as well as training and outside funding opportunities. All of these activities have not only helped to keep the center current, but have also contributed to its high level of use.

Maintaining a five-year plan

In May 2002, two years will have passed since the first idea of a new center was brought to the attention of the top administrators at Bentley College. In these two years, new trends have already begun to emerge. Students are equipping themselves with MP3 players and PDAs. Mobile digital delivery of the materials is more in demand than ever before. At the same time, the reality is that the commercial tech trends seem to filter down to academia at a much slower pace. This delay, however, serves as an important advantage has an important advantage for educators. It allows time to evaluate the pedagogical value of the technology while contemplating the future trends.

At the same, the demand for more information and resources that can complement students’ language learning and greater speed of delivery will only increase. Therefore, ongoing attention must be paid to space issues, equipment replacements and upgrades to accommodate faster networks and more rapid information flow.

As in business, the director of the center should maintain a five-year plan for the facility shaped by the information gleaned from the various sources described above. The plan should be reviewed every year, and updated according to the emerging trends in technology and language teaching. This process should be undertaken in consultation with the other technology leaders on campus.

Conclusion

The burgeoning of technological innovation, especially in the past decade, has brought new challenges and responsibilities to colleges and universities around the globe. Students come to school today expecting information, resources, and curriculum to deliver what is needed to expand their knowledge base in the most effective and efficient way possible. As a result, administration must recognize and promote the kinds of projects that can meet those expectations. While a nod of approval comes first, the strategic planning to realize proposed initiatives is a crucial element to making them successful in the long run. In the case of CLIC, the strategic plan involved a collaborative process between three groups of players: administration, faculty, and technology experts. While each phase of the five-phase strategy engaged the expertise of the certain phase players more than others, the entire project was iterative, reflective and collaborative. Most importantly, the project is ongoing. CLIC continues to assess, analyze, and plan, looking for ways to improve service, expand resources, and engage other disciplines in integrating the study of languages and culture into the school-wide curricula. ♦

Appendix A

Center for Languages and International Collaboration at Bentley College (CLIC), Waltham, Massachusetts USA.

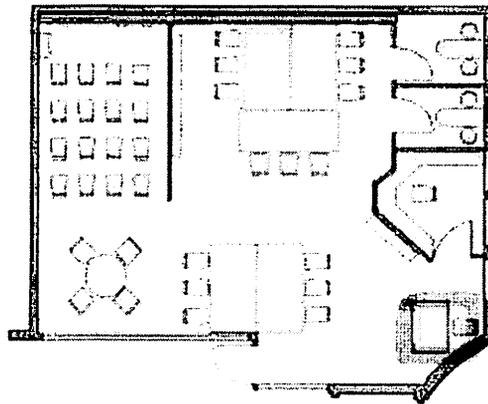


Figure 1. CLIC floor plan.

Reception Members of the CLIC staff greet students and visitors at the Main Console reception area, where all technical features of the Center can be managed.

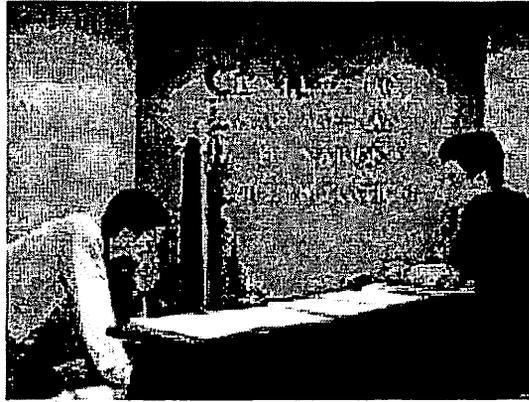


Figure 2. Reception area

PC area The 15-station PC area is networked to the main console system, receiving full audio and digital output from the master teacher console. Each station also receives satellite programming, plays DVD movies in designated regional settings, and connects to the Bentley network, providing access to the Internet and an array of multimedia language instructional programs.

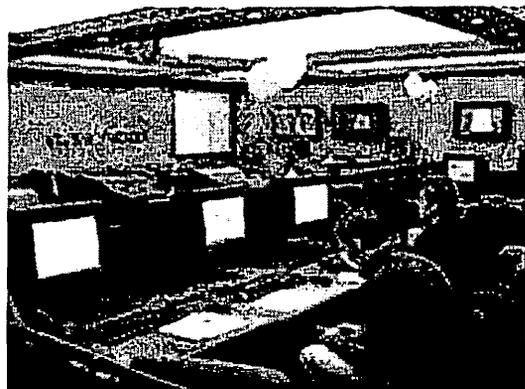


Figure 3. PC area

Global Theater The 24-seat theater presents international satellite programming in six languages: French, Spanish, Italian, Japanese, Hindi, and Arabic. Equipped with two 42-inch plasma screens and the video conferencing technology, the theater also offers real-time conferencing between Bentley students and professors and their counterparts overseas. VCR and DVD technology provide viewing of instructional materials, movies, and documentaries in both US and

internationalformats.

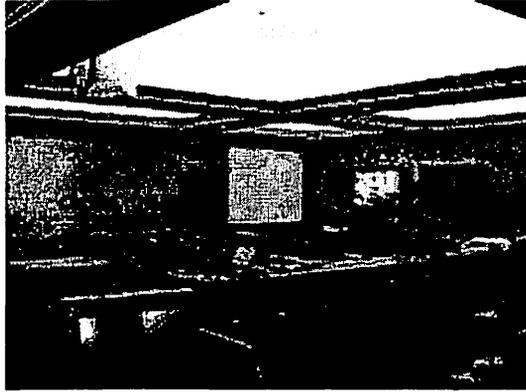


Figure 4. Global Theater

Lounge Area An area where students and staff can relax and talk, watch international news on built wall TV, or read.



Figure 5. Lounge Area

Bistro Rooms The multilingual student staff uses any one of two individual bistro-style rooms to engage in one-on-one conversations with students in the language under study. Access to the Internet in each room allows students and staff to explore the many international web sites providing additional exposure to authentic language.



Figure 6. Bistro (tutor) room

Appendix B

Snapshots of Project-based Virtual Environments



Figure 7. Home page for integrated, project-based virtual environment with l'Ecole Supérieure de Commerce, Clermont-Ferrand, France.



Figure 8. Bentley students in computer-conference with peers in France

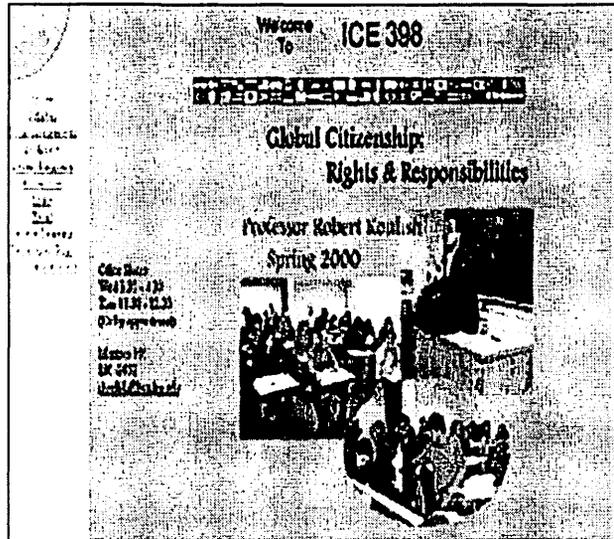


Figure 9. Home page for Global Citizen course that combine classroom and in-country study experiences with partnered school, Budapest University of Economics and Social Sciences.



Figure 10. Survival Hungarian online designed by CLIC staff to support Global Citizen course.

Notes

¹Students majoring in any one of the eight liberal arts majors must study a modern language, but these majors comprise only 8% of all undergraduate majors. Beginning in summer 2002, a small tutoring program was introduced to faculty, staff, and graduate students who desired conversation practice with a native speaker, and/or wanted to use the self-paced instructional programs.

²The Center for Language and International Collaboration has been featured the May 2001 issue of *Sound and Communication*. CLIC, along with four other Centers at Bentley College, was part of the campus-wide upgrade that brought Bentley College's the 2001 Educause Award for Campus Networking.

³The Davis Foundation awarded Bentley College \$200,000.00 to support technology training and course innovation; part of the funds supported faculty liaisons who served as tech advisors for colleagues.

⁴ArcView GIS 3.2 (Environmental Research Institute, Inc. 1992-1999) is a geography information systems program. It visualizes and analyzes social, economic, and political information through map creation.

⁵The ML and INT departments connected with faculty and students at L'école Supérieur de Commerce, Clermont-Ferrand, France in Virtual-based Learning Environments.

⁶Microsoft SQL, a relational database software program, was used to collect, share, and analyze data across several different databases. Cold Fusion was used to create the user interface on the web to collect the information.

⁷Some conferences are: EDUCAUSE, CUMREC, NERCOMP.

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