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CURATED LANGUAGE LEARNING SPACES: DESIGN PRINCIPLES OF PHYSICAL 21ST CENTURY LANGUAGE CENTERS

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ABSTRACT

This article develops a set of design principles for 21st century language centers. It is based on a 2013 survey of language center directors and staff for the International Association for Language Learning and Technology (IALLT). The proposed criteria, which are flexibility and adaptability, mission-based design, situatedness, social space and community design, and de-emphasis of technology, offer a new direction in the physical and conceptual design of 21st century language learning spaces.

INTRODUCTION

The purpose of this article is to provide design principles for future language centers based on a 2013 survey conducted for the International Association for Language Learning and Technology (IALLT) and recent publications in language center design. It seeks to redefine the language center as a curated language learning hub and define design criteria for language centers in a post-desktop, cloud-based, student-centered era in order to avoid relatively fast obsoletion.

From its inception, the language laboratory and later the language center has generally been conceived as a physical place. Students and instructors would go to the location in order to use its unique and specialized features and equipment. But as technology has become increasingly mobile, ubiquitous, powerful, and more affordable, language centers have only slowly been able to adapt. After all, buildings, furniture, and specialized equipment installations cannot be updated as fast as software and new computing devices can. Wang (2006) rightly asks: "Since more and more computer technology is available even in the far reaches of the student dorms, what draws students to still make use of the LLC?" (p. 57)

Because of the speed of recent technological, administrative, and pedagogical developments, even more recent publications on language center design (e.g. Kronenberg, 2011a) cannot do these trends justice. One survey respondent writes: "Our Language Learning center was renovated six years ago with computers, in the hope that it would be used more than the previous one. Now some classes take place there, but the center remains underused as students use laptops and tablets." Through the study and proposed guidelines, this article seeks to redefine the current state of language center design.

OVERVIEW

Since their emergence in the first half of the 20th century, traditional language laboratories had been built with a clearly defined mission in mind: to provide language learners with opportunities to listen to recordings in the target language. During the language laboratory's peak in the late 1950s and early 1960s (Hocking, 1964), recording one's own voice (and listening to it later) became another regular feature of language laboratories.[1] Published design guidelines for traditional language laboratories were very clear and generally left relatively little room for design choices aside from the number of stations and other technical considerations (see e.g. Stack, 1966).

The traditional language lab, based on the largely behaviorist audio-lingual method, became outdated as new technologies emerged and a shift in language teaching and learning occurred. Certain elements are still relevant: the delivery of audio files to students, speech recording, and feedback to the student by language instructors. But a learning model based purely on behaviorism has been enhanced

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[1] For a more detailed history of the language laboratory, see e.g. Barrutia, 1967; Roby, 2004; Salaberry, 2001; Hocking, 1964)

by communicative, constructivist and constructionist approaches to language learning, and the newer language centers must take these changes into account.

Newer methods and approaches to teaching languages, which focused more on communication and less on "drill-and-kill" exercises, for example led to the language lab's slide into obscurity after the late 1960s. Institutions had to decide what to do with the often massive physical spaces and the specialized staff members. Many labs adapted and took on new responsibilities, such as hosting language learning resources or providing interdisciplinary learning spaces. Gone was the lab and its single, well defined mission, and an entity that had no concrete mission or name took its place. These spaces, which go by various names, such as language learning centers, language learning commons, or language resource centers, continue to be updated, re-envisioned, and redesigned (Kronenberg & Lavolette, 2015). But the legacy of the traditional audio-lingual language lab continues to influence technology developments, which often still try to emulate physical labs, and they continue to influence physical language center and classroom design (Askildson, 2011).

METHODS

This article is based on two main sources: the first includes historical and contemporary texts on language center/laboratory design, the second one is a 2013 survey of language center staff.

The survey was sent out in May 2013 to the IALLT membership and to members of all regional groups. The Qualtrics survey included 53 questions and was divided into 3 sections titled "Personal," "Profession/Organization" and "Language Center."

The third part, titled "Language Center," made use of a smart logic algorithm to exclude participants who were not in charge of their language center at the time of the survey. 86% of those who started the survey finished it completely (127 started, 109 finished the survey).

The data used in this article comes from this third section. A general report about the survey, especially sections one and two, and the current state of language center design and management has been published by Kronenberg (2014).

RESULTS

This article proposes and develops 5 design criteria based on a 2013 survey of more than 100 language center professionals and recent literature and research in the field. The proposed criteria are: flexibility and adaptability, mission-based design, situatedness, social space and community design, and de-emphasis of technology.

Criterion #1: Flexibility and Adaptability

"The mind boggles in trying to comprehend the total impact that mass media communication is having and will have in learning. [...] We are coming out of the period of 'munication,' that is, one-way information such as we have always known television to be, and are rapidly moving toward true communication in a broader sense. Microwave, laser beam, two-way radio, and simple telephone lines will provide heretofore unavailable communication networks which may preempt future language laboratories and, in certain cases, even classrooms. As we begin to understand that more learning takes place within the confines of the home than at schools, revolutionary ideas come forth such as giving students school and college credit that is proportional to their level of achievement, rather than to the amount of time they spend in a classroom."

(Barrutia, 1967, p. 897)

Nearly half a century later, Barratuia's vision is still quite progressive. At least from a technological standpoint, communication networks have indeed developed rapidly and now allow constant accessibility to synchronous and asynchronous communication tools that are no longer place-bound. Change in physical spaces to accommodate these new possibilities has been very slow. Foreseeing future developments is a difficult task, and thus most language centers have been built with a view to the past and present rather than the future. Language laboratory pioneers and designers have always tried to envision a more flexible setup in order to avoid risking obsoletion of an expensive investment. Freudenstein (1975) describes a bus that incorporates a mobile language lab that can be parked in front of a school and shared by many schools in a district, so that the cost of building a permanent lab can be avoided. Stack (1966) describes

an "electronic classroom" as "an attempt to make the laboratory part of a dual-purpose room, suitable both for regular classroom procedures and for laboratory functions for audio-active language drills" (p. 18). Using mobile technology in a regular classroom instead of building a dedicated facility is an approach that is still used today to provide an environment that is flexible enough to accommodate an unforeseeable future.

For the most part, however, the vast majority of language laboratory spaces were completely filled by booths. Their design was completely driven by technical rather than pedagogical parameters and, once built, unchangeable, thus emphasizing functionality and efficiency over effectiveness (for blueprints, see e.g. Stack, 1966). In order to accommodate new forms of learning and teaching as well as technologies, language centers have to be and stay flexible and nimble. As one survey respondent writes: "The overall classroom design, carrels in rows, does not really work very well."

Flexibility, as Nunan, (2000) points out, has multiple meanings and is often used in conjunction with other educational concepts, for example "learning institutions (flexible organisations), delivery systems (flexible delivery) and learning (flexible learning), indicating its relevance for managers, educational workers and students alike" (p. 48). New technologies arise constantly, so the physical space can no longer be planned around technology, as was the case with older language labs or turnkey solutions. Flexible furniture is a crucial component, more important than specific models of computers. Needs will change, technology will change, but a re-configuration of the center may not be in the budget for many years. Technology plays an integral, yet supportive role in the language learning process. If a language center supports the teaching and learning of languages, both digital and non-digital teaching and learning tools must be an integral part of any language center.

Survey Results

Many respondents described effective design features in the survey, and it is clear that there is not a 'one-size-fits-all' answer. The answers do, however, show that the set-up has a considerable impact on activities and usage that take place in the language center. Choices were situated and relative to the institution and setting, as this small selection of quotes about successful design features reveals.

Survey question: "What design choices (including architectural features, furniture, spatial layout, space solutions, decorations, information displays, etc.) work particularly well in your language center?"

- community spaces, collaboartive [sic] work areas, one point of entry and check-in
- Open areas, large, collaborative carrels, small rooms for testing/video conferencing with large monitors
- activity space with kitchen.
- media booths for production that double as private study/tutoring/oral exam testing rooms
- Outdoor tutoring space
- The two facilities withi [sic] the centre are well-equipped for both traditional teaching (uni-directional seating in one room) and group work activities (clusters of stations multi-directional)
- Multipurpose rooms; small meeting space

Many respondents mentioned certain types of furniture as particularly effective design features:

- small, configurable furniture;
- laptop countertop in computer labs
- Work pods that encourage collaborative work; Presentation arena; computer studio classrooms
- Small group areas and all furniture on casters for rearrangement.
- "Computer labs with alternate seating"
- Perimeter seating in classroom labs has been an excellent (and recent) design choice
- Our computer labs are laid out in clusters, rather than rows. Our faculty want the space to be collaborative and allow them to walk around easily.
- Non-fixed seating
- the furniture, which we purchased last year with oddly-shaped tables that have holes in the middle for the computer wires, electrical cables in interlocking tracks under the carpet, the extra tables for laptops (we're a laptop campus), and the 5 booths we left on the side wall for private testing.
- A huge white board with markers in any color of the rainbow for students to interact (question of the week) in the language(s) they are learning/studying.

- Large center "conference" table made up of 4 smaller tables can be repositioned
- Triangular tables which can be configured in island of four or used in rows, rectangles etc.
- We have Steelcase Node chairs for our multipurpose room and our walk in lab "collaborative corner." They are very popular and work very well in the space.
- computer lab has a space in the center for students to gather to discuss things, then move back to computer work. this has worked very well for us.
- 4-student pods for workstations
- We wish that we had the money to buy desk/chair combos that could be swiveled towards each other to create a group meeting space, or swiveled away from each other for individual work.
- open classrooms with wired computers on tables around the perimeter of the room, variety of options for tables in the center.
- Immovable/heavy furniture along the walls.

Overall, spaces that are adaptable to a variety of situations appear to be a design criterion of post-audio lingual method language centers, as this answer illustrates: "Movie room designed to accommodate 11 people. Is also used for quiet study, individual testing, small group Skyping, conversation groups and tutoring. Has 3 computers, one large screen TV with Skype camera, XBox. We could use a few more of these rooms!" Strange and Banning (2001) argue that "space most likely to contribute to involvement must be flexible in its design. The ability to move walls and to rearrange seating capacities and designs allows for the maximum use of space and the accommodation of the greatest number of needs" (p. 146). Planning a sustainable solution requires constant assessment mechanisms and input from a variety of constituents. Understanding the space as never finished, as a process, is a key design parameter. Relying too much on blueprints during the planning process can actually inhibit the future feasibility of the space. Grosvenor and Burke (2008) point out that the "architect and educational designer Bruce A. Jilk in the USA has argued that there has been a tendency in the past to over-design schools, and that designers need to reconsider their preoccupation with suggesting all the functions for the teaching and learning environment. Jilk suggests a 'montage of gaps' to draw attention to the significance of the spaces and places in between the formal learning environments; these can be left incomplete in order to stimulate a continuous design response among the users of these spaces over time" (p. 166-67). One of

the survey respondents emphasized that "open space is good," another that "[h]aving an open space with lots of walking room in the classroom" is a positive feature. Another positive attribute, "great flow," shows how far away we have moved from the immovable, rectangular, uncommunicative booth layout of the language lab era.[2] Although there is no solution that fits all language centers, flexibility and adaptability were highly prized and emphasized in the survey, and show that not only has the name changed, the core concept of the center has undergone a paradigm shift. One respondent's answer sums up these changed design choices: "We still have got one, but it's not your 'traditional' language learning center! It's a single relatively high tech room with a flexible design that allows for relatively easy reconfigurations as needed. Things that cannot be moved easily are along the walls; the rest rolls or can be moved easily so that the space can be configured as needed; we have learned to be creative, maximize our resources, and generally to think outside of the proverbial box."

Criterion #2: Mission-based design

"It seems obvious but is often forgotten: Teaching and learning should shape the building, not vice versa"

(OWP/P Architects, VS Furniture, & Bruce Mau Design, 2010, p. 69)

Language center design is often driven by its physical layout: the number and placement of tables and chairs, computer stations, or the position of the projector. In times of rapid technological changes and new educational and institutional practices, it is critical to focus first and foremost on the center's mission and role within the curriculum and institution before starting with the architectural drawings. With the possible exemption of the first incarnation of language laboratories, this has always been a difficult task. Dakin writes in 1973: "Far from being well-established, the role and value of the language laboratory has still to be determined" (p. 1).

The survey revealed that missions and expected or offered services vary from language center to language center. The most common services include:

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[2] It should be noted immovable furniture does have some advantages, especially for "[h]iding places offer a crucial respite from an open, collaborative environment" (Doorley & Witthoft, 2012, p. 132). Users do not have to make space decisions, and immovable furniture can create feelings of being hidden, laid back, cozy, and secure.

technological support (76%)
facilitation of project work (72%)
classroom instruction (71%)

All other services are only offered at less than 60% of language centers:

provide professional development (59%)
provide on-line spaces (57%)
provide non-traditional spaces (53%)
special services (52%)
provide social spaces (52%)
provide event spaces (50%)
hardware and equipment maintenance (38%)
provide support for languages not taught at your institution (29%)
plan events (28%)

Other services mentioned in the survey include: A/V duplication, tutoring, instructional materials development, placement / assessment services, K-12 professional development, videoconference course sharing with other institutions, development and usage of a center's own online tools.

Because language centers differ from one another quite profoundly in the way of their expected services (the number and roles of employees are another factor of differentiation, cf. (Gopalakrishnan, Yaden, & Franz, 2013 and Kronenberg, 2014), their mission and role cannot be merely assumed but has to be clearly crafted and defined. Certain behaviors can be made more likely than others, a concept referred to as "inter-systems congruence" (Michelson, 1970, p. 25, as cited in Strange & Banning, 2001, p. 20). If the physical design process in based on the desired role of the space, not only can agreed-upon services be offered in a strictly utilitarian sense, but students and faculty are also encouraged toward certain ways of language learning and teaching that align with the curriculum and the institution.

The Modern Language Association recommends such a common space in one of its latest reports: "Through a language center or other structure, develop a forum for the exchange of ideas and expertise among language instructors from all departments. Such structures prove invaluable in boosting the morale of teachers and improving the quality of professional and intellectual life" (Modern Languages Association, 2007). The parameters of such a space recommended by the MLA are much vaguer that those of the first language laboratories, which makes a situated and individualized design approach essential. One difficulty is

the lack of assessment or evaluation data of current centers. 64% indicated in the survey that their center was not "assessed/evaluated on a regular basis." In order to establish a basis for a new mission-driven center design, its staff should assess what currently works well in the center, what does not, and which services or possibilities cannot currently be provided in the existing space. A committee appointed by the International Association of Language Learning and Technology finished work on a language center evaluation tool that can be used to determine strengths and weaknesses of existing centers (initial findings were presented at the FLEAT/IALLT conference at Harvard University in August, 2015; the published toolkit is forthcoming).

In order to focus on mission first and architectural design second, all stakeholders and future users should be involved in the pre-planning and planning processes, and should continue to shape the space as it evolves after construction.[3] Architects are not teachers and generally will not see the spaces they create in use, especially not over time. Grosvenor and Burke (2008) ask: "But how many architects today are able to follow the advice of pioneering collaborations of educators and architects from the past and actually spend time in schools, carefully observing how they function in order to understand how best to support good practice?" (p. 157-58). Furthermore, architects and other professional designers generally rely on previous cases and are influenced by their own experiences as students. Ideas about language teaching have changed over the past decades, but one's own experiences as students inadvertently shape our understanding of what a learning space should be. Hall (1976) describes the differences between a physical structure's users and architects as follows:

> Most architects think of the spatial experience as primarily visual. As one of them once explained to me, they also think of it in terms of drawings and renderings – that is, two-dimensionally! However, behind this relatively simple statement lie some problems of considerable magnitude. One of the talents – the fact that they are great visualizers – separates them from their clients and causes untold pain and agony. Architects can look at a drawing and, using it as a reminder system, reconstruct the spaces quite vividly in their own minds. But few clients actually have this capacity. Clients have to actually be in the space after it is finished before they can experience it (p.153).

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[3]One respondent writes: "Involves all constituents, so faculty and students shape the center (facilitated through director). Very closely [sic!] with other centers, departments, and offices on campus. We constantly change and adapt."

There can be a disconnect in the pre-planning and planning phases of language center design, which may result in a focus on the technical and physical aspects rather than the goals of the language center. For example, the question of how many "computer stations" need to be in a given space and where they are placed has lost its value in a time in which mobile technologies are increasingly present and the idea of BYOD (bring your own device) is more and more common. Technological innovation cycles happen much more often than building cycles. Individual rooms in language centers are often not changed for decades, and building footprints are changed even less often. Kronenberg (2014) argues that modern language centers are more than merely physical environments. A more accurate view is that they function as a hub, a central space for language learning activities. There is even a trend to not install computers in new centers and rely on students' devices. Such centers would only provide relatively little in terms of hardware but instead focus on support, development, and other services.

Involving all stakeholders poses a number of challenges. It slows down the process considerably, and the fact that most are likely to not have any design experience creates communication hurdles. Furthermore, there is not a large number of innovative language center design examples to draw from.[4] And even those centers that are state of the art may have been designed to take into account the distinct particulars of their institution, situation, or environment. Because good design is situated, a solution that works in one place might not work in another. It is expensive and time intensive to travel to other language centers to inspect them.[5]

The label "language center" itself (the word 'center' generally replaced the word 'lab' or 'laboratory' in recent years) reflects the move from a single, defined mission to a vague, undefined role. Technological advancements have created new learning and teaching possibilities and have freed users from a physical space when performing certain tasks, such as listening to audio materials or creating recordings of themselves. Language learning centers have re-emerged in recent years as their mission, roles and services have greatly expanded. The modern center can provide much more than a traditional language laboratory: engage students, provide a space where creative learning and content production takes place, support faculty in an environment of increasingly sophisticated

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[4] See Kronenberg (2011a) for more recent examples.

[5] Pre-planning and planning teams may rely on consultants who have experience in this field (IALLT maintains a database of such experts at
http://www.iallt.org/consultant_directory

technology, conduct research and assess relevant technologies, and establish and foster communication across campus.[6] Wang (2006) sums up a newer vision that can be useful as a basis for language center's mission: "we provide a comfortable environment for language communication, offer technical support to students and faculty members, and add pedagogical perspectives for the use of technology in language instruction. We readily supply language learning resources and software, and, apart from offering instructional space, we conduct student assessments and promote overall language awareness on our campus" (p. 57). If a center's role is framed in such a way, it will be able to maintain its relevance long after it is built.

Criterion #3: Situatedness

"Our center is not in a basement"

(quote from the 2013 IALLT survey)

Modern language center design should be situated within a larger educational and campus environment, both in an intellectual sense pertaining to its place within the ideals, values, goals and vision of the educational institution and its substructures, such as language departments, and in a physical sense pertaining to the space's location and relation to other parts. While the former was covered as in the previous section, this section deals with the latter: physical situatedness.

The location of a language center on a campus or school area and within a building is crucial for its development and usage, and yet it is the criterion that its stakeholders often do not have much control over. A central and easily accessible position is certainly advantageous. Strange and Banning (2001) posit that "[f]or example, the symbolic message of a second-floor location may communicate that the institution does not give serious consideration to the users of the service nor their needs for accessibility and convenience" (p. 15). There is a kernel of truth to the cliché that language laboratories/centers have been traditionally placed in dimly lit basements. One survey responder even writes:

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[6] Liddell and Garrett (2004) propose a new type of language center, one that is takes on a larger academic leadership role, but they acknowledge that for smaller and not as well funded institutions this may be more difficult to maintain. They posit that especially the academic director's position be elevated to be able to provide resources, guidance, research and leadership beyond basic language instruction.

"Our center is not in a basement. Lots of light, good air circulation." Where a space is located does send out a message to its users and patrons. Freire writes that "[b]y making clear that the educational space is valuable, the administration is able to demand the due respect for it from learners" (Freire & Freire, 1997, p. 97). Thus, a well-placed language center with attractive and positive environmental factors certainly sends a message about the values of language learning, student and faculty support, and an institution's educational mission.

Newer language centers, compared to their precursors, are generally not unconnected, independent and dedicated spaces anymore but part of other learning and teaching organizations, spaces, or offices on campus, such as the media commons, ITS, the library, or a learning and teaching center. Liddell and Garrett (2004), for example, describe one such connection: "The relation between a language center and the campus academic computing unit can be problematic, but academic computing can also be one of the center's most powerful allies. In today's networked campus and world, it is simply no longer possible for the language technology effort to remain autonomous and unconnected" (p. 36).

Connecting the language center with other units, arguably one of its strengths, makes their physical placement difficult. From an educational standpoint, it makes sense to be situated in and near the department(s). But campus design is increasingly moving toward a centralization of information resources and spaces, and in such a scenario language centers are often located within a library, a media commons, and learning center, in an IT or computer lab building, or next to other support centers, such as a writing center or a tutoring center. The decision where the language center is situated has profound impacts on its mission, perception, and usage. In the IALLT survey, not much was written about this because the choice is often made by those not directly involved with the language centers, such as campus planners and higher administrators.[7] Another important decision is the placement of the director's office. Usually these are part of the language center or in close vicinity; 9% of respondents reported that they were not nearby and 9% that did not have an office. While the location is not the only factor determining a language center's usage and success, it is much harder to promote its merits when it is difficult to reach and cumbersome to get to.

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[7] One respondent mentions the "location in office/classroom bldg where most of lang/lit teaching goes on" as one of the positive characteristics of the language center, another writes that it is "nice to be located inbetween [sic] student center and stadium."

Spaces and their locations provide non-verbal cues for behavior, which, according to Mehrabian (1981) may be seen as more truthful than written or verbal ones. Rapoport (1982) argues that physical structures remind people of what's expected of them. Environmental factors such as textures, music, sounds, colors, floors, light, use of space, etc. can support and enable a language center's mission. In the IALLT survey, frequent references were made to how one respondent describes his/her center: a "comfortable environment for students and faculty."

Frequent comments in the survey were about light: "One entire wall is windows > light!!!", "bright colors," "we have a lot of windows both to outside & between rooms. Outside windows bring in lots of outside light making space inviting and social; windows between allow for easy view of happenings in other rooms to aid in support, etc." and "[s]unny alcove with coffee house table and oak bookshelves for small group study sessions." This is a reversal from traditional language laboratories that emphasized dividers, cubicles, and little social interaction.[8] For most language centers it is advisable to install window shades that can limit or even block sunlight when necessary and to test artificial lighting on computer and device screens.

Figures 1 and 2. Traditional recording booths at a previous Language Centers at Rhodes College.

The use space is another important aspect to consider. Traditionally classrooms have been filled by furniture, which maximized efficiency, supported listening and passivity, and allowed for better control of the students by

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[8] Burke (2005) remarks that "light, as an object of material culture, was and continues to be a fundamental part of the makeup of the school" (p. 140).

restricting movement (Moreno Martínez, 2005). Traditional language labs were also built around the same principles and traces can be found in many centers today. Limiting furniture and allowing for creativity are increasingly the post-Fordian ideals of symmetrical and efficiency-based language center design.[9]

Figure 3. Students writing on writable walls during class.

The plethora of design options and individualizations mentioned in the survey show that the one-size-fits-all approach is slowly disappearing: "We have 3 casual drop in spaces with upholstered furniture; " "Collaborative space for student learning/teaching, regional artist paintings decorate our Center walls, natural light (third floor space);" "Last, not least, plants (foliage and blooming) of every size for decoration and as space dividers!" and "Screen saver collections that pertain to the culture of the languages we study." It is difficult to provide a language center blueprint that fits most schools, and in the design process each case much be individually assessed and planned.

Criterion #4: Social Space and Community Design

"Relationships between people in space that suits them, that is architecture. An empty box is not architecture. Construction finds its meaning only in the social relations it supports"

(Kroll, 1984, p. 167)

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[9] Doorley & Witthoft (2012), for example, propose an immersive space they call a "white room" with boundless writable surfaces to spark creativity and generate bold new ideas. (p. 183) The recently built language center at Rhodes College is itself almost completely covered with writeable whiteboard paint.

Do we need a physical language center in these digital times? In traditional language laboratories, many services could be done only in a physical location, for example accessing networked and specialized equipment, such as lab tape recorders or headsets, different types of media, or tape copy services. This justified the creation of a specialized, physical space, and users had a real need to frequent the place. As more and more services can be done on a number of devices without any location restrictions, the need to come to a physical location has decreased. For example, students can now watch streaming movies or listen to audio on handheld devices, record their voices on a phone or in a browser window, and access a wide variety of authentic media anywhere. While this has led to a decline of usage in many language centers, it also opened up a number of possibilities to reinvent the language center as a social space.

Henri Lefebvre posits that space is socially constructed, and more recent research includes the notion that spaces cannot be limited to physical objects and design. Referring to Lefebvre's work, Milgrom (2008) writes that "the production of space is a continual process, and that space is always changing as conceptions, perceptions, and lived experiences change" (p. 270). Researchers, such as Etienne Wenger and Jean Lave, emphasize the role of communities of practice that create new networks that go beyond a physical place and that social processes generate learning (cf. Lave & Wenger, 1991). "Space," McGregor (2003) asserts, "is literally *made* through our interactions" (p. 354). Thus, learning space design must include the possibility of creating "sociopetal" or "socially catalytic" (Strange & Banning, 2001, p. 145) spaces, which encourage interactions among its users.

While traditional language labs have not focused on this idea of social space, the idea of social interaction in them is not completely novel. Dakin (1973) already argued that technology cannot completely replace social interactions:

> It is unlikely that it can satisfactorily replace the teacher in the classroom altogether. The effectiveness of our teaching might be impaired rather than improved if we relied exclusively on the laboratory for presenting or developing new material. In these areas personal interaction and improvisation are indispensable. The value of the laboratory must rather be ascertained as a means of giving concentrated individual practice. (p. 9)

In language center design terms, there is the distinction between a teaching center (or lab) and a drop-in center (or lab). Both can be strictly technical and

utilitarian, but both can also be designed with the idea of fostering social interactions and thus learning in mind.

About half of the language centers (52%) that participated in the survey provide social spaces. The type of institution does have an impact on this. For example, centers at liberal arts college were more likely to provide such a space than those at national universities and even more so than at regional universities or colleges. Several respondents pointed to a sense of community and belonging as positive attributes of their centers. One respondent answered that something as simple as providing coffee and tea allows students to "make the center their 'home' while on campus and not in classes."

Oldenburg (1999) postulates the idea of a third place, a place in between the places of work and home, a transitory, semi-formal space that allows people to stay, to be private in public. A classic example of such places is the coffeehouse, and thus the reference in the quote above is not coincidental. Third places are more than simply havens of escape, they are levelers: "A place that is a leveler is, by its nature, an inclusive place. It is accessible to the general public and does not set formal criteria of membership and exclusion" (Oldenburg, 1999, p. 24).[10] For a language center, that means providing a common ground for different groups to meet on campus, outside of offices and classrooms which by their very nature impose a hierarchy and social expectations. Such a new social environment is not merely a more pleasant place, it also allows for new forms of social and more student-centered learning. "Further, a place that is a leveler, Oldenburg (1999) posits, "also permits the individual to know workmates in a different and fuller aspect than is possible in the workplace" (p. 24). Indeed, the language center as a work hub for language departments to overcome siloization is a powerful new potential role for language centers. One survey respondent writes: "As all of our language departments are separate entities (vs a large Modern Languages Dept) we try to create a common space (free from dept politics and animosities) where langauge [sic] faculty and students can work and interact and support on [sic] another."

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[10] Soukup (2006) discusses the question whether the notion of third place, as proposed by Ray Oldenburg, can exist as a virtual space. Because Oldenburg's concept places such a heavy emphasis on locality, geographic place, and a single culture and community, not cross-cultural spaces online. He suggests the term "virtual third place," which differs from Oldenburg's original concept, because "the interaction is 'virtual' or transcends space and time and alters identity and symbolic referents via simulation" (p. 432).

Physical design parameters can foster creating a sense of belonging, of community, of social interaction. The designation of such a separate space with different parameters of engagement and expectations can be achieved through the use of thresholds, which "signify change, and they are easy opportunities for leveraging intuitive behaviors. People frequently expect to act differently when exiting one space and entering another" (Doorley & Witthoft, 2012, p. 42).

Many centers introduce an element of unexpectedness. For example, some language centers have birds or fish in their spaces, others provide international soundscapes or unexpected and unconventional furniture choices, such as beanbags or hammocks. Frequent changes of the space, such as constant rearrangement of furniture or imagery, also allow for a reframing of the notion of what is expected and what are acceptable behavior and actions.

Doorley and Witthoft (2012) distinguish between three categories of gathering spaces: drop-in spaces, curated spaces and self-service spaces. Employing the modes of all three allows for a situated set-up of language centers as social spaces. Drop-in spaces, which focus on predictability and a fixed set-up, allow patrons to quickly find what they need (the coffee and tea bar mentioned above is an example of such a space). Curated spaces, such as lobbies or welcome areas, are spaces that allow for a certain degree of variation, which does generally not occur on a daily basis. The most flexible and customizable spaces are self-service spaces. This category may include a "huddle room" or an event space. Including all three types of set-up and finding the right mixture of these will make it more likely to make visitors feel they belong - both to the center but also the community and the institution.

It is thus advisable to build the possibility of not seeing the space as fixed but as constantly changing and socially driven by all members of the community and stakeholders into the design process. This also allows for more flexibility to shift from formal to informal modes of learning in the future. Boys (2011) posits that "[f]or many educationalists, this requires a move away from formal lecture halls and classrooms towards technology-rich and informal, social learning spaces – a strong driver in many recent building designs and adaptations" (p. 2).

Such new space may also be useful to promote the learning goal of lifelong learning, which is not only one of the ACTFL standards but can be found in many institutions' mission statements. "Community design is much more like life-long learning," Wenger, McDermott, and Snyder (2002) argue, "than traditional organization design. 'Alive' communities reflect on and redesign

elements of themselves throughout their existence. Community design often involves fewer elements at the beginning than does a traditional organization design" (p. 53). Thus, social space design means not attempting to plan every aspect of a new space but designing a space that can grow in unexpected and community-driven ways.

Criterion #5: De-emphasis of technology

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn. "

(Alvin Toffler)

The history of the language laboratory and later center is filled with the use of technological innovations. Some tools that could now be considered standard resources have remained - audio (and later video) recordings of native speakers and language learners, access to authentic media, communicative tools, resources that make teaching more efficient and motivating. But many more innovations have come and gone as overhyped fads. Salaberry (2001), for example, mentions three failed, obscure technologies: the audio-active voice reflector (cf. Brown, Dietz & Fritz, 1972), the spectograph (cf. Lantolf, 1976), and the dormiphonics technique (cf. Sherover, 1950). Other technologies that have come and gone include various forms of physical media, from the reel-to-reel tape to the laserdisc player, or different platforms (e.g. MOOs, MUDs, and other virtual worlds). Benefits from technology have the tendency to be overstated and often we do not have sufficient data for new tools and resources. (Dunkel, 1987; Salaberry, 2001). And even if new tools have proven advantages, instructors might not wish to implement them for a number of reasons: time, learning curve, habits, fear, skepticism, different beliefs about language learning. What is clear is that a language center should no longer be built around particular technologies because development cycles are so rapid that the space would be outdated in a short amount of time: "What is new today will become the old of tomorrow," (Conacher & Kelly-Holmes, 2007) argue, so that in developing a new language-learning environment, one should be wary of promoting this as the panacea for every problem identified in the current situation, for it will inevitably become the 'traditional' language-learning environment of the future" (p. 19-20).

The idea of the language lab/center as a primarily technological space is deeply rooted in its history and development. This idea is bound to change just as many areas of modern life have been disrupted by ubiquitous and increasingly

inexpensive and mobile digital technologies and we have seen massive changes in only a few years, from books to written communication, from access to films and music to synchronous person-to-person communication. A rethinking has to occur so that language centers and other learning spaces can adapt to these new realities or they risk being made obsolete. According to Askildson "many language labs have remained facilities that are uniquely focused on technology support and with extraordinarily minimal involvement with either language departments or faculty teaching" (p. 13). Such language centers can easily be integrated into a more centralized IT unit. But the larger issue is not an organizational one but one of the core mission and an adaptation to and acknowledgement of new pedagogical approaches to language learning and teaching. Askildson (2011) continues that "[m]oreover, and perhaps more concerning, many of these same language labs have maintained a uniquely cognitivist approach to language learning – emphasizing individual exposure and practice – rather than adapting to a contemporary model of the second language acquisition process that indicates the need for highly contextualized and meaningful interaction" (p. 13). This disparity of classroom practice and physical language center spaces is echoed by Liddell and Garrett (2004):

> Thus, where classroom teaching adapted to both affective and cognitive styles of learning, the technology of the language labs remained firmly in the cognitive camp. By the late 1980s, signs of strain in the infrastructure of language learning at the postsecondary level could be roughly summed up as: methodological, technological, professional, and structural (p. 32).

What is necessary is an understanding of the language center not as an exclusively technological entity but as a hub that supports and enables innovative language learning and teaching through various means, including technology. The recent shift to a more interactive world wide web, often referred to as web 2.0, has enabled language centers to move some tasks out into the open. Educators are no longer bound to physical spaces for certain activities. Asynchronous communication tools, such as voice boards and blogs, free personal videoconferencing, podcasts, digital delivery of audio, and easy recording of course materials replace many of the traditional language lab's functions. Therefore the language learning center can and should provide guidance and support for activities that can take place inside regular classrooms or on students' laptops. A language learning center should integrate technology as a logical part of the language learning and teaching process. But technology is not a panacea and cannot replace human interaction and face-to-face teaching.

Non-technological aspects have to be an integrated part. What technology can do is enhance learning, make teaching more effective, and create new possibilities beyond the confines of the campus.

Several responses in the IALLT survey echo this idea of constant change and adaptation. One writes: "We respond rapidly to changing software needs," and another that "[w]ith so many language/course resources available online for students remotely, there is little need for them to use the language lab for classroom assignments." A new space with this in mind can actually have profound changes in the understanding, identity and workings of a language center, as this respondent's input reveals: "The move has reenergized me and the faculty as we explore new programming and an expanding mission, focusing more on building community among language learners and less on technology-based resources (though certainly present in our facility, technology is not presented as the central feature of the space)." Non-technological services identified in the survey include tutoring services, training of faculty, graduate students and teaching assistants. Only a few of those surveyed report that some legacy services remain. For example, DVD viewing and language lab type set-ups are still used by some faculty and students in some centers. Defining technologies from only a few years ago are rarely mentioned, if at all. For example, a satellite TV set-up was only mentioned once, and in the future TV watching is likely to be replaced increasingly by streaming services, which are already used on campuses as several reported in the survey.

Figure 4. Student using own device in dedicated video viewing room.

Single-purpose areas, such as individual viewing stations, might lose their core functions in language centers and will either have to be repurposed if possible or risk becoming obsolete. One survey participant writes: "Having distinct rooms that can be re-purposed as technology changes has been helpful." Many centers will continue to offer standard services, like scanning or printing, as well as specialized equipment or space solutions, such as ASL recording systems, videoconferencing rooms or soundproofed recording areas. Such services will continue to influence design decisions. But planners should try to envision if such spaces can either become less important in the future or if technology may change enough to make specialized hardware less frequently used in the future. For example, while a dedicated video conferencing room has benefits, such as sound and image quality compared to the use of relatively simple and mobile video conferencing set-ups, it must be determined if the space savings and added flexibility by a rededication of a room might be a worthwhile trade-off, especially if mobile systems continue to evolve. Salaberry (2001) poses several thought-provoking questions: "Is increased technological sophistication correlated to increased effectiveness to achieve pedagogical objectives?" and "[d]o new technologies provide for an efficient use of human and material resources? (e.g., use of blackboard vs. overhead projector vs. Power-Point for presentations)" (p. 51). Indeed, the reality of budgets and space limitations at most except for the wealthiest and largest institutions might lead to difficult decisions in the design process and the exclusion of certain space features.[11] (cf. Kronenberg, 2011b)

A rededication and rethinking of a single-use space might be, for example a "collaboration area" (which is based on the idea of interaction and learning) rather than a "videoconferencing room" (which is based on a single technology).

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[11] It is, however, possible, advisable and often necessary for larger, well-funded centers to provide specialized spaces. One respondent describes such a space: "Strong central support for our center has allowed us to become an innovative facility fostering interactive environments, technology enhanced learning, and nonlinear research and pedagogies. Our recent move and redesign allowed us to expand to more than twenty state-of-the-art rooms, and our facilities now provide an expanded array of services for students, faculty, and researchers, from a new media room with glassboard and CopyCam functionality to H323 conference rooms, new media production rooms for students and instructors, telecollaboration rooms, and research rooms that focus on qualitative and post-cognitive paradigms, adaptive learning, and virtual worlds. Our move came attached with a generous MFLL course access fee that now funds the Center on a recurring basis."

As only 53% of language centers (according to the survey) currently provide non-traditional spaces, there is room for improvement in this area: "Dream big and be brave," OWP/P Architects, VS Furniture, & Bruce Mau Design (2010) recommend. "The rate of technological advancement is increasing exponentially. When designing schools, don't let today's reality limit tomorrow's possibilities" (p. 241). Envisioning how a space will function and what the language center will be in a decade or two is a difficult task, but building the idea of multiple paradigm shifts into the envisioning of the space can safeguard against unsuitable design decisions. An added difficulty is the marketing of technologies and commercial pressures, and going against ideas of what a language center is and what it should be can be difficult in education institutions: "transformation is painstakingly slow in the world of school design" (Nair and Fielding, 2005, p. 1).

CONCLUSION

Language centers today have new responsibilities and a new mandate (Liddell and Garrett, 2004). Traditionally, language laboratories focused on guided repetition, focus on form, direct feedback to individual learners, behaviorism, and control. They were technology-centered and regarded the computer as tutor rather than as a tool. Newer language centers have shifted to a more constructivist, student-centered and communicative view that supports teaching and learning meaning in context, provide nuanced feedback and foster and provide spaces for communities of learners.

Figure 5. Flexible, multi-purpose language learning space.

The purpose of this article was to provide design principles for future language centers based on the 2013 IALLT survey and recent publications in language center design. Language centers should be designed in a flexible way to be able to adapt to future needs and react to changing technological and pedagogical realities. Planners ought to include all stakeholders in the design process to assess and determine a center's mission, which should be used as the basis for physical space design. Such a space is necessarily different at each institution, and there are no standard set-ups available. Changed expectations and uses include centers as the public face of languages, as a social space to bring together different students, faculty, departments or languages, a physical space of collaboration and exchange in an increasingly virtual world. As such, language centers should not solely be driven by technology but rather focus on innovation and development. Brown and Long (2006) argue that "learning spaces are not mere containers for a few, approved activities; instead, they provide *environments for people*" (p. 9.1) and that they include the full range of places in which learning occurs. While many centers are expected to provide legacy services, their staff must be aware that these soon may not need any more support. Future language center design research should include a systematic collection of data and analysis of diverse language learning and teaching spaces, developing measures of success, and working toward a redefinition of what a language center is.

Today's centers face a new reality: ubiquitous, mobile computing has changed how students, faculty, and staff use physical spaces. What can a physical space offer when everything appears to be going virtual? When its mission is no longer that of only providing dedicated hardware and software? A modern language center is more than simply a space for support but rather a curated language learning hub. It creates synergies between the various languages and their faculty and students, various campus offices such as information technology services and study abroad, and other departments. A well-managed center offers faculty development targeted at, but not limited to, language faculty, it creates language-learning possibilities outside of the classroom by planning events, such as language karaoke nights, tutoring possibilities, and foreign language video game sessions. And it can bring people together even beyond the confines of the campus boundaries by enabling video conferencing with students who study abroad, exchange partners, or native speakers.

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REFERENCES

Askildson, L. R. (2011). From lab to center: A vision for transforming a language learning resource into a language learning community. In F. A. Kronenberg (Ed.), *Language Center Design* (pp. 11–22). International Association for Language Learning and Technology.

Barrutia, R. (1967). The Past, Present, and Future of Language Laboratories. *Hispania*, *50*(4), 888–899.

Boys, J. (2011). *Towards creative learning spaces: Re-thinking the architecture of post-compulsory education*. Abingdon, Oxon; New York: Routledge.

Brown, J., Dietz, D., & Fritz, R. (1972). A testing of the audio-active voice reflector in the foreign language classroom. MLJ, 56, 144-147.

Brown, M., & Long, P. (2006). Trends in learning space design. In D. Oblinger (Ed.), *Learning spaces*. Educause. Retrieved from www.educause.edu/learningspaces

Burke, C. (2005). Light: Metaphor and materiality in the history of schooling. In M. Lawn & I. Grosvenor (Eds.), *Materialities of schooling: Design, technology, objects, routines* (pp. 125–143). Oxford: Symposium Books.

Conacher, J. E., & Kelly-Holmes, H. (2007). Thinking beyond technology: Towards a broader understanding of new language-learning environments. In J. E. Conacher & H. Kelly-Holmes (Eds.), *New learning environments for language learning: Moving beyond the classroom?* (pp. 19–31). Frankfurt am Main: Peter Lang.

Dakin, J. (1973). *The language laboratory and language learning*. London: Longman.

Doorley, S., & Witthoft, S. (2012). *Make space: How to set the stage for creative collaboration*. Hoboken, NJ: John Wiley & Sons.

Dunkel, P. A. (1987). Computer-Assisted Instruction (CAI) and Computer-Assisted Language Learning (CALL): Past Dilemmas and Future Prospects for Audible CALL. *The Modern Language Journal*, *71*(3), 250–260. doi:10.2307/326444

Freire, P., & Freire, A. M. A. (1997). *Pedagogy of the heart*. New York: Continuum.

Freudenstein, R. (1975). *Unterrichtsmittel Sprachlabor: Technik, Methodik, Didaktik im Medienverbund*. Bochum: Kamp.

Garrett, N., & Liddell, P. (2004). The new language centers and the role of technology: New mandates, new horizons. In S. Fotos & C. Browne (Eds.), *New perspectives on CALL for second language classrooms* (pp. 27–40). Mahwah, NJ: L. Erlbaum Associates.

Gopalakrishnan, S., Yaden, B., & Franz, J. (2013). Management and leadership: Roles, styles and philosophies. In A. F. Ross (Ed.), *Language center management* (pp. 1–15). International Association for Language Learning and Technology.

Grosvenor, I., & Burke, C. (2008). *School*. London: Reaktion Books.

Hall, E. T. (1976). *Beyond Culture*. Garden City, NY: Anchor Press.

Hocking, E. (1964). *Language laboratory and language learning*. Washington D.C.: Dept. of Audiovisual Instruction, National Education Association of the United States.

Kroll, L. (1984). Anarchitecture. In C. R. Hatch (Ed.), *The Scope of social architecture* (pp. 166–181). New York, NY: Van Nostrand Reinhold.

Kronenberg, F. A. (Ed.). (2011a). *Language center design*. Moorhead, MN: International Association for Language Learning and Technology.

Kronenberg, F. A. (2011b). Language centers at small institutions. In F. A. Kronenberg (Ed.), *Language Center Design* (pp. 83–94). International Association for Language Learning and Technology.

Kronenberg, F. A. (2014). Language Center Design and Management in the Post-Language Laboratory Era. *IALLT Journal*, *44*(1), 1–16.

Kronenberg, F., & Lavolette, E. (2015, August). *Results of the 2015 IALLT language center/lab director survey*. Paper presented at the meeting of the Foreign Language Education and Technology conference, Cambridge, MA.

Lantolf, J. (1976). On teaching intonation. MLJ, 60, 267-274.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, U.K.: Cambridge University Press.

McGregor, J. (2003). Making Spaces: Teacher Workplace Topologies. *Pedagogy, Culture and Society*, *11*(3), 353–377.

Milgrom, R. (2008). Lucien Kroll: Design, difference, everyday life. In H. Lefebvre & K. Goonewardena, *Space, difference, everyday life: Reading Henri Lefebvre* (pp. 264–281). New York: Routledge.

Modern Languages Association. (2007). *Foreign Languages and Higher Education: New Structures for a Changed World.* Retrieved on May 11, 2011, from http://www.mla.org/flreport

Moreno Martínez, P. L. (2005). History of school desk developments in terms of hygiene and pedagogy in Spain (1838-1936). In M. Lawn & I. Grosvenor (Eds.), *Materialities of schooling: Design, technology, objects, routines* (pp. 71–95). Oxford: Symposium Books.

Nair, P., & Fielding, R. (2005). *The language of school design: Design patterns for 21st century schools*. Minneapolis, MN: DesignShare.

Nunan, T. (2000). Exploring the concept of flexibility. In V. Jakupec & J. Garrick (Eds.), *Flexible learning, human resource, and organisational development putting theory to work* (pp. 47–66). London: Routledge. Retrieved from http://www.businessnetbase.com/ejournals/books/book_km.asp?id=2510

Oldenburg, R. (1999). *The great good place: cafés, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. New York, NY: Marlowe ; Distributed by Publishers Group West.

OWP/P Architects, VS Furniture, & Bruce Mau Design. (2010). *The third teacher: 79 ways you can use design to transform teaching & learning*. New York: Abrams.

Roby, W. B. (2004). Technology in the service of foreign language learning: The case of the language laboratory. In *Handbook of research on educational communications and technology* (2nd ed., pp. 523–541). Mahwah, NJ: Lawrence Erlbaum. Retrieved from http://www.aect.org/edtech/19.pdf

Salaberry, M. R. (2001). The use of technology for second language learning and teaching: A retrospective. *The Modern Language Journal*, *85*(1), 39–56.

Sherover, M. (1950). Dormiphonics - A new language learning technique. MLJ,34, 444-446.

Soukup, C. (2006). Computer-mediated communication as a virtual third place: Building Oldenburg's great good places on the world wide web. *New Media & Society*, *8*(3), 421–440.

Stack, E. M. (1966). *The Language laboratory and modern language teaching. Revised edition.* New York: Oxford University Press.

Strange, C. C., & Banning, J. H. (2001). *Educating by design: Creating campus learning environments that work*. San Francisco: Jossey-Bass.

Wang, J. (2006). The changing role of a language learning center at a liberal arts college in the midst of technological development. *IALLT Journal*, *38*(1), 56–65.

Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School Press.