What are the Variables of Interest?

- Differs between taxes
- Making a putt in golf
- Competing in a race
- Completing a pass
- Using a computer mouse
TABLE OF CONTENTS
OREGON STATE UNIVERSITY, LEARNING INNOVATION CENTER

03 EXECUTIVE SUMMARY
04 SCOPE OF WORK + BUDGET
05 SCHOOL + COMMUNITY ENGAGEMENT
07 EDUCATIONAL ENVIRONMENT
17 PHYSICAL ENVIRONMENT
22 RESULTS OF PROCESS + PROJECT
EXECUTIVE SUMMARY

Completed in 2015, the 134,000 sf Learning Innovation Center (LINC) is the first academic building in Oregon State University’s recent history to serve every department on campus. Its unconventional classroom layouts accommodate a wide variety of teaching & learning, supporting the University’s design directive: To raise graduation and retention rates through increased student and faculty engagement – even in typical large lecture hall classes. Through a series of design charrettes and extensive meetings with stakeholders, the design team identified three core goals in serving this overarching academic mandate:

Facilitate Active Learning at All Scales

Enhance Learning Both Inside and Outside the Classroom

Support Faculty Testing Innovative Pedagogical Approaches

The design team worked with a diverse group of faculty and administrators to create precedent-setting teaching and learning environments that have positioned Oregon State University at the forefront of testing innovative pedagogical approaches and technology. Key components of the Learning Innovation Center project include:

The First Arena Style Classroom in the Country

Drawing on their extensive experience with performing arts centers, the design team looked at other environments and spaces where the engagement between presenter/performer and audience were highly successful.

Crafting a Total Learning Environment

By inverting the traditional organizational approach and surrounding the large lecture halls with a generous loop of circulation, LINC provides a range of spaces supporting hundreds of students studying individually and in groups. Outfitted with movable furniture, generous power, whiteboards, and technology, this loop of informal learning space eases the flow of students at class change, allows faculty and students to continue conversation immediately after class, and supports tutoring and group study.

Enhanced Exterior Campus Spaces

With a site across from another newly constructed OSU building, LINC provided the opportunity to define a new campus precinct. This new, completely accessible quad became the first major open space added to the campus in decades and naturally extended the Olmstead brothers’ original 1909 plan.

Key Support Services for Faculty

Innovative learning environments are only successful when the faculty teaching in them feel comfortable and confident. OSU and the design team took a variety of measures to ensure pedagogical success including locating key technical and prep spaces adjacent to large lecture halls and the formation of a new entity, the Integrated Learning Resources Center, where faculty can test new teaching technologies before using them in the classroom.

Ongoing Research Quantifying Student Engagement

The enthusiasm generated by this new facility led the architect and OSU to partner in an ongoing initiative called The Geometry of Learning that has begun measuring student engagement and learning outcomes in new large scale active learning spaces as compared with traditional lecture halls. Since this partnership in 2015 other institutions have joined including Texas A & M University, where the architect is currently building an academic facility similar to LINC, and the University of California, Los Angeles.
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**LARGE 600 SEAT ARENA CLASSROOM**
Oregon State University is a comprehensive, research-intensive public land-grant university with over 28,000 enrolled students. It is one of only two universities in the country to have all four land-, sea-, space- and sun-grant designations, and its programs and faculty are located in every county of the state.

OSU is committed to being among the top 10 land-grant institutions in the country, supporting a continuous search for knowledge and solutions with a rigorous focus on academic excellence, particularly in three signature areas: Sustainable Earth Ecosystems, Human Health & Wellness, Economic Growth + Social Progress.

The University strives to provide excellent teaching and learning environments that foster student access, engagement, persistence, and success, producing graduates who are competitive in a global economy.

LEARNING INNOVATION CENTER STAKEHOLDERS

Designing a new general classroom building that would serve every department on campus, while also employing new teaching technologies, necessitated the involvement of a wide variety of stakeholders. The design team engaged with faculty from multiple departments - both those eager to embrace new pedagogical approaches and those skeptical of them - to ensure all voices were heard and concerns addressed. Additionally, this building sought to co-locate three dispersed departments each focused on aspects of faculty professional development and teaching success: the Center for Teaching & Learning, Academic Technology, and Technology Across the Curriculum. Finally, as LINC was to become the new home for the Honors College & Student Government, student input and feedback was critical to the process.
SCHOOL + COMMUNITY ENGAGEMENT

VALUE OF PROCESS + PROJECT TO THE OSU COMMUNITY

Facilitated Interdisciplinary Exchange

The process for designing the OSU LINC building had a significant impact on the OSU Community. At its most basic level, the programming and design effort created a forum for exchange between the faculty of every department on the campus from the Physical Sciences to Humanities to Social Sciences. This process developed new relationships and a better understanding of the differing needs of the faculty. As the first building to serve virtually every department on the campus the LINC is extending those initial relationships through the use of the building itself.

Creation of a New Department for Teacher Support

Another valuable discovery that occurred as a result of the program and design process was recognizing the potential synergy that existed between 3 different existing departments dispersed across the campus. This led to the creation of The Integrated Learning Resource Center housed on the top floor of the building where these three departments now collaborate in more effectively supporting the teaching needs of faculty across the campus.

Enhanced Relationships with Other Academic Institutions

LINC has had an equally important impact on the enhancement of OSU’s reputation and its relationships with other academic institutions around the country as on University campus culture and practices. Since the building opened, over 25 universities have toured LINC as they consider adding new teaching facilities, and OSU has become both an example and a resource for these campuses.

The project has helped forge new relationships and strengthen existing ones, and has been the subject of multiple presentations at prestigious national conferences pertaining to college and university planning. The platform provided by such organizations as the Society for Campus and University Planning (SCUP) has directly resulted in peer-to-peer knowledge sharing in the academic and facilities planning communities. OSU is currently planning a new conference on campus dedicated to the impact of Teaching-In-the-Round Classrooms.
EDUCATIONAL ENVIRONMENT
VISION AND GOALS

Oregon State University Aspirations

- Increase Student Retention + Graduation Rates
- Enhance Learning + Engagement Across Campus In a Dramatic and Impactful Way
- Accommodate Growth of Student Population

Learning Innovation Center Aspirations

- Create An Inspiring Teaching Laboratory For The Campus
- Promote Active Learning And Engagement Across All Abilities And At All Scales Of Class Sizes
- Enhance Interactions Amongst And Between All User Groups To Cultivate A Vibrant Community
EDUCATIONAL ENVIRONMENT
CREATING AN ENVIRONMENT THAT SUPPORTS THE CURRICULUM

CRITICAL SUPPORT SERVICES + PRIORITIZING FACULTY TRAINING

As our design for LINC was progressing, it became clear that the learning environments we were developing would necessitate a robust faculty support system. This meant equipping educators with the skills they would need to succeed in new classroom types with advanced technological capabilities. Working with senior campus academic leadership, we conceived of a strategy to co-locate three departments within the LINC: The Center for Teaching and Learning (CTL), Technology Across the Curriculum (TAC), and Academic Technology (AT).

Center for Teaching + Learning — helps faculty with professional development and in improving teaching based on student evaluations.

Technology Across the Curriculum — assists faculty in tailoring pedagogic approaches to the possibilities and challenges of unique classroom typologies.

Academic Technology — supports professional development, provides direct technical assistance in the classroom, and facilitates research/testing of new technology as it interfaces with teaching.

While these entities had interacted and overlapped previously, and departmental leaders supported the move, they had never “lived” together before. Each department works with faculty in different ways, with differing workspace requirements. This led to some apprehension over how a single environment could accommodate all three user groups.

We hosted listening sessions with each department separately, then brought all three groups together. We helped staff to articulate their own needs, before encouraging them to understand others’. By fostering dialogue, the participants were able to see where they could share space and overlap, given their parallel missions. Based on these sessions, we established a “kit of parts”, allowing staff to select their kinds of workstations and informal meeting areas within their teams — all within the same furniture system.

Integrated Learning Resource Center (ILRC) — Today, the fourth floor of the LINC is home to the ILRC, a flexible environment that meets each department’s needs, while offering shared spaces for coming together and establishing a sense of unity and connection.
EDUCATIONAL ENVIRONMENT
CREATING AN ENVIRONMENT THAT SUPPORTS THE CURRICULUM

FACILITATING INFORMAL LEARNING

Workshops with students revealed that the campus significantly lacked space for both individual and group study outside of the classroom. LINC responds to this deficit by incorporating informal learning space in a variety of settings distributed across every floor of the building. These spaces support tutoring sessions, teams working on projects, groups studying for exams, and individuals looking for quiet focused study.

Since LINC serves all the academic departments at OSU, this building encourages spontaneous interdisciplinary collaboration, enhancing awareness of the full range of academic resources available on the campus.

Much of LINC’s strategically-located 600-seats of informal study space is distributed around the perimeter of the building, paired with the generous circulation zone. This space is outfitted with amenities for student use, including power, flexible furniture, and whiteboards. These areas proved so popular with students across campus that the University almost immediately extended LINC’s hours of operation. At night the building remains a campus destination with the glowing perimeter revealing the activity of students within.

CLOCKWISE FROM TOP LEFT:
Heads down study space tucked at a quiet end of the building.
Group collaboration space with writable surfaces.
The Forum - a small group presentation space with full AV capabilities that can be reserved or used spontaneously.
Informal social spaces outside classrooms for continued post-class dialogue.
EDUCATIONAL ENVIRONMENT
SUPPORTING A VARIETY OF LEARNING AND TEACHING STYLES

OUTSIDE THE BOX DESIGN INSPIRATION
Following tours of other campuses with the OSU Building Committee, the design team engaged faculty and administrators in a deep exploration of possible classroom formats, asking them to consider conventional and unconventional spaces, amenities, and organizational concepts. This process included research about ideal physical proximity and visibility in other “audience-presenter” situations including dramatic theater, talk shows, and spaces housing legislative bodies.

UNDERSTANDING SUCCESSFUL AUDIENCE ENGAGEMENT
To achieve active learning at all scales, the design team researched those qualities that are influential to enhance performer-audience engagement in a theatrical setting, including working with a theater consultant to understand details such as eye contact and facial expression.

Application of these principals in teaching environments creates a space that better supports an effective and engaging relationship between instructor and student regardless of the size of the classroom. These qualities impacted the layout and design of the classrooms including the implementation of technology that allows the professor to move freely throughout the space while lecturing, thereby allowing them to be near any student, creating a more dynamic teaching and learning experience.

Active Learning Spatial Characteristics

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<th>Proximity</th>
<th>Mobility</th>
<th>Flexibility</th>
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<tr>
<td>To Faculty</td>
<td>Eye Contact</td>
<td>Of Faculty</td>
<td>Furniture</td>
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<td>To Media</td>
<td>Facial Expression</td>
<td>Of Students</td>
<td>Space</td>
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<tr>
<td>To Peers</td>
<td>Shared Work Surface</td>
<td>Of Media</td>
<td>Over Time</td>
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Eye 15'
Facial Expression 6'

10
EDUCATIONAL ENVIRONMENT
SUPPORTING A VARIETY OF LEARNING AND TEACHING STYLES

TESTING NEW SPATIAL CONFIGURATIONS + INTEGRATING FACULTY FEEDBACK

Faculty Forums
Integral to our process of designing the new innovative teaching environments for OSU was consistent interactive work between the design team and the OSU faculty. This started with the shared goal of expanding the range of teaching environments available on campus. In early work sessions, faculty participants worked in groups and assembled different versions of the classroom mix and range of environments that they would recommend for the new building. It was from the faculty forums that the idea for implementing classrooms in the round first gained support. From this starting point, the configuration was defined and the idea was refined.

Faculty Experience Teaching Mockup
In another milestone in the design process, these new lecture hall configurations were mocked up in a simplified manner using the existing large ballroom space at the campus Student Union. Faculty were invited to deliver micro-lectures in these settings to experience teaching in an alternative environment. Faculty feedback from this experience was overwhelmingly positive. It, in fact, led to some design adjustments, including adding a second smaller arena classroom to serve class sizes of 300 and less, (thereby greatly expanding the range of faculty who could have the opportunity to teach in this configuration) while down-sizing the parliament style environment from 300 seats to less than 200.

Custom Crafted Podium
From this experience it also became evident there was the need to design a custom podium for the arena classrooms – one that was circular and could rotate – thereby allowing faculty to approach and use it from any direction as they moved about the room. The need for faculty coaching also became evident, because teaching in the round does not allow the faculty member to remain in a fixed position, but rather invites (almost requires) them to be in constant motion.
EDUCATIONAL ENVIRONMENT
SUPPORTING A VARIETY OF LEARNING AND TEACHING STYLES

VARIETY OF CLASSROOM SPACES

These room plans depict the range of classroom types and the relevant seating capacity that are included in the Learning Innovation Center. This illustrates a deliberate strategy of developing a full range of teaching environments in the building, thereby allowing faculty to choose a space that is comfortable for their teaching style and the pedagogy of their course. With a wide variety of teaching environments, faculty can find a classroom that is effective for them and their course, with the ability to try different settings over time.

2300 Total Classroom Seats
Integrated Instructional Resource Center
University Honors College
EDUCATIONAL ENVIRONMENT
SUPPORTING A VARIETY OF LEARNING AND TEACHING STYLES

A HOLISTIC LEARNING ENVIRONMENT

At peak class change times LINC may accommodate up to 5,000 arriving and departing students, and circulation space has been generously sized to accommodate this flow. As the pie chart illustrates, 2,300 classroom seats occupy over 30% of the building, with the largest lecture halls located on floor 1 and 2, to ease access. Distributed Informal Learning spaces, for individual and group study, occur on each floor, providing 640 seats in 10% of the building. LINC also houses OSU’s Honors College’s administrative offices, counseling, student support, and dedicated classrooms, which occupies 10%. Additionally, another 10% accommodates the Integrated Learning Resource Center’s 3 departments, providing support for faculty from every department across the campus.
EDUCATIONAL ENVIRONMENT
SUPPORTING A VARIETY OF LEARNING AND TEACHING STYLES

INNOVATIVE LECTURE HALLS
Top: The Arena is a 600-seat classroom-in-the-round that situates all students within 35 feet of the presenter.

Far Left: The Small Arena accommodates 300 students and reduces that distance to 25 feet.

Left: The Parliament is a curved, double-loaded configuration, with flexible presentation locations, which seats 175 and encourages discourse and debate among students.
EDUCATIONAL ENVIRONMENT
SUPPORTING A VARIETY OF LEARNING AND TEACHING STYLES

INNOVATIVE LECTURE HALLS
Clockwise from Top Left:
400-seat Lecture Hall used for classes + guest lecturers
220-seat Fan Style lecture hall
72-seat Learning Studio
70-seat Cast Study classroom
EDUCATIONAL ENVIRONMENT

ADAPTABILITY + FLEXIBILITY

ROBUST TECHNOLOGY FOR FREE MOVEMENT

The Arena and Parliament classrooms offer wrap-around projection screens. Professors are "untethered" via wireless technology and can roam throughout classrooms to engage students directly, even in large courses. A central podium swivels, allowing faculty to easily access their presentations, and multiple screens allow a variety of images, ideas, or presentations to appear simultaneously.

FUTURE PROOFING SPACES

Advancements in technology like on-line content delivery are calling into question the viability and need for large lecture halls. OSU wanted to ensure they were not investing in a space that would be unused in the foreseeable future. A traditional 600 seat lecture hall would require a balcony and steeply sloped floor to accommodate sightlines resulting in a room that would be very challenging and expensive to reconfigure. By contrast, the low sloped floors of the 600 seat Arena classroom can be transformed into a flat floor room with relative ease. Its rectangular plan configuration can easily be re-purposed as smaller classrooms with the ability to respond to teaching configurations appropriate to future pedagogy.
LINC balances aspirations for dynamic, forward-thinking interior environments with the desire to complement the campuses existing architectural vernacular and its status as a National Historic District listed on the National Register of Historic Place.

Inside, LINC benefits from double-height spaces, generous daylight and views, robust and prevalent technology, varied and flexible study spaces, and considered use of color and large scale graphics to aid wayfinding and impart institutional identity.

The graduated, textured brick facade is punctured by a consistent rhythm of large window openings, implying a porous quality. The depth of these openings creates strong shadow patterns that connect to the color and material character of the campus.

The new landscaped space formed by LINC's location naturally extends the Olmstead brothers' original 1909 plan, while offers a contemporary spin on OSU's historic and formal sequence of quads.
PHYSICAL ENVIRONMENT

SPATIAL CONFIGURATION

INVERTING THE RELATIONSHIP BETWEEN CLASSROOM AND CORRIDOR

Rather than locating classrooms against the exterior walls of the building with only one entrance/exit to a crowded interior corridor, the design team pulled formal learning spaces to the center of the building with informal spaces - and circulation - forming the perimeter. Not only does this allow for multiple points of access to each classroom, but it created a range of informal study spaces such as study lounges, breakout spaces, and writing nooks enjoying maximum views and daylight.

With up to 5,000 students exchanging places during the 10 minutes between classes, a critical design component was enabling easy flow to and from all classrooms. The design team investigated how airports manage dense passenger congestion to maximize movement, and LINC’s design incorporates concepts of “flow regulation”.

Additionally, pulling the classroom away from the exterior eliminates daylight glare and thermal heat loss, which allowed the team to eliminate the heating systems in classrooms, saving energy and reducing costs.

TOP RIGHT
The double-height, oversized circulation outside the 600-seat Arena classroom eases congestion to LINC’s largest learning space and allows daylight through clerestory windows to interior classrooms.

BOTTOM RIGHT
LINC’s large windows frame the building’s dynamic circulation routes and grand stair, activating the building throughout the day while inviting students late into the night.
PHYSICAL ENVIRONMENT
GRAPHIC + WAYFINDING ELEMENTS

REINFORCING INSTITUTIONAL IDENTITY
Because of this breadth of student use, the design team suggested integrating the brand expression of OSU into the design of the building, and the University embraced this opportunity to communicate the institution’s rich academic life, especially its position as one of only two universities in the nation to have all four Land, Sea, Space and Sun grant designations.

In LINC, large scale environmental graphics represent these four designations, celebrating the research underway on campus and providing identifying elements for each classroom. The design team selected these images in partnership with OSU as representing the character of the institution, while the colors were developed through a process of working with the university brand palette. The result is a physical environment that integrates the institutional brand in a way that is dynamic, coherent, and memorable.
PHYSICAL ENVIRONMENT
FITTING WITHIN THE LARGER CAMPUS CONTEXT

SENSE OF PLACE, OPEN SPACE, AND PEDESTRIAN CIRCULATION

Though housing innovative interiors, LINC’s exterior had to address its location within the campus’ carefully protected historic core. OSU is, Oregon’s only university to have part of its campus designated as a National Historic District on the National Register of Historic Places. This includes the new building site.

The building’s heavily textured red brick façade connects to the color and material vocabulary of the campus, while large windows create an occupiable facade that showcases the informal study and social areas of the large circulation loop. Ground floor openings facilitate student arrival from all directions, with one large portal oriented to the main circulation route.

LINC’s site and orientation were chosen to create a new landscape asset for OSU, connecting LINC to Austin Hall, the new business school opposite, as well as the historic Women’s Gymnasium and the Asian Pacific Cultural Center, providing gathering and event space for all.

Fully-accessible, the plaza is designed to accommodate high volumes of students coming and going between classes, while offering seating areas and places to gather. The campus’ classic sequence of historic quadrangles is given a contemporary treatment with striking, diagonal circulation routes and an iconic “bosque” style planting design.
MEASURING LEARNING OUTCOMES

The excitement generated by LINC’s unique design has inspired a long-term partnership between the design team and Oregon State’s College of Education, Center for Teaching and Learning, and Media Service’s Teaching Across the Curriculum that studies the effects of alternative large-scale classroom configurations on student learning outcomes and engagement.

Initial research created a baseline of student outcomes by studying large-scale classrooms in existing OSU facilities in which instructors are attempting to use active learning techniques. Data about test scores, attendance, participation, and engagement is now being gathered on the same courses/instructors in LINC’s new classrooms. More than 10,000 students have signed up to participate, and clicker technology tracks student attendance and seating location in the room. The data collected will inform future classrooms and teaching methods both on the OSU campus and at other higher education institutions.

Please see the following section for details about this initiative and its initial findings.

As a land-grant, public research university, OSU has a very specific goal of education and serving students from across diverse backgrounds. This requires diversity in pedagogy, epitomized by the range of teaching and learning opportunities, both form and informal, found in this academic building. It is a bold, high innovative solution that has bone far beyond simply meeting the classroom demands of a growing university.

We have already led dozens of tours for educators from institutions across the country and beyond, and its reputation continues to spread. I hope that other institutions will similarly be emboldened to provide 21st Century teaching and learning environments that truly engage their students.

This remarking addition to our campus has proven to be the most popular academic classroom building for students and faculty alike, and it will positively shape learning outcomes for our OSU community for generations to come.

Edward Ray
President
Oregon State University
THE GEOMETRY OF LEARNING RESEARCH INITIATIVE

To empirically measure and assess the effectiveness of LINC in increasing learner engagement, OSU’s Academic Technology unit is conducting a suite of connected studies titled The Geometry of Learning. These studies include seat-location/final-grade correlations, faculty interviews, learner surveys, and analysis of institutional data. The institutional data of interest is based on the two Arena classrooms (600-seat and 300-seat) and the 175-seat Parliament Classroom respectively.

Research Scope and Parameters

The data includes course enrollment, course grade point average (GPA), and course grades of D, F, Unsatisfactory, or course Withdrawals after the first two week Add/Drop period (DFWU) and withdrawal rates taken separately for course sections before and after teaching-and-learning-in-the-round. Withdrawal rates are counted separately because courses may be dropped within the first two weeks of the term with no indicator on the student’s transcript.

Analysis of this data compares the first five terms (Fall 2015 through Winter 2017 minus Summer which is incongruent with other terms) of all courses taught in the teaching-and-learning-in-the-round spaces with the same courses taught in the five terms before LINC (hence in traditional lecture halls with similar capacity).
INITIAL FINDINGS + UNDERSTANDING THE DATA

The group data (aggregate of the three teaching-and-learning-in-the-round rooms) shows that enrollments and course GPAs did not significantly change from traditional spaces. This is a positive result because steady enrollment is desirable and GPAs are normalized by faculty.

The significant results are the changes in the DFWU rates and the withdrawal rates taken separately. These rates matter because learners failing more frequently or leaving the course at higher rates are potential indicators of negative influences in the course. Course withdrawal may occur between the third and seventh weeks of the term and results in a “W” grade on the student’s transcript, though with no effect on their GPA. Late course withdrawal may incur a financial penalty or may require the student to petition for the “W.” Thus, higher than average course withdrawals are employed as indicators of students at academic risk or courses with abnormal factors.

The Concept of Academic Harm

Factors of a course or classroom can act as negative influences on student success. For this study, such negative influences are classified as “academic harm” which are elements of the academic process and environment that increase risk of reduced learner performance, lengthened the time to degree, and dis-enrollment.

It is critical to check for academic harm in the previously untested teaching-and-learning-in-the-round spaces. The findings for the first five academic terms shows a reverse effect from academic harm. Rates for grades of D, F, U, or W overall in courses taught in teaching-and-learning-in-the-round spaces decreased by 21.2%. Course withdrawal rates alone decreased by 18.7%. Both measures are statistically highly significant.
RESULTS OF THE PROCESS + PROJECT
ACHIEVING GOALS + EDUCATIONAL OBJECTIVES

This data alone does not prove that teaching-and-learning-in-the-round is better than instruction in conventional spaces. It does definitively demonstrate that teaching-and-learning-in-the-round has not caused academic harm. The conclusion is that LINC’s teaching-and-learning-in-the-round design successfully met OSU’s educational and institutional objectives in the LINC project as effective learning spaces for large lectures along with other teaching strategies employed in them.

Feedback from Faculty Interviews

The value of LINC’s learning spaces to faculty is made clear in the interviews conducted with 86% of the faculty who taught in the 600 seat teaching-and-learning-in-the-round space in the first six terms (quarters) of LINC (Fall 2015 through Winter 2017).

Preliminary analysis of the interview transcripts demonstrate that faculty who have taught in the 600 seat teaching-and-learning-in-the-round space:

- Prefer teaching-in-the-round to conventional “sage on the stage” lecture halls with the instructor located at one end
- Developed strategies and techniques unique to teaching-in-the-round
- Experienced a high sense of engagement with learners
- Perceived positive changes in learner behaviors
- Believe that the quality of their teaching is improved by teaching-in-the-round.

Results from both of these studies are being prepared for publication in peer-reviewed academic journals.
RESULTS OF THE PROCESS + PROJECT

ACHIEVING SCHOOL’S GOALS

A Dramatic Impact Upon Learning Spaces + Facilities Across the OSU System

In 2010 it was evident that OSU’s student enrollment was growing and that existing learning space assets would not meet the emerging demand. The decision to invest in a teaching and learning building was driven by the goal to meet future demands for formal and informal learning space foreseeable for the next fifty years. LINC meets OSU’s formal and informal space needs by providing a single space that currently services 25% of all general-purpose classroom seats at the university. LINC took OSU from a learning space shortage to a learning space surplus, which also makes it possible to take traditional buildings out of service for renovation. A major outcome of LINC’s success is an increase in quality learning spaces across the entire OSU campus.

Maximizing Faculty Professional Development + Support

The fourth floor of LINC is home to the OSU Honors College and the Integrated Learning Resource Center which is the combined teaching and learning support units for the entire OSU system (across four campuses). Bringing these groups together in a common open environment has fostered increased collaboration among these units and provides a central location where faculty and learners are supported in using educational technologies, learning space designs, and educational theory & practice.

A Vibrant Cross-Disciplinary Hub

Situating system-wide teaching and learning support resources in the building establishes LINC as a dedicated teaching and learning facility. As ten of the eleven academic colleges currently teach classes in LINC, many faculty and students comment that they have more inter-disciplinary intersections in LINC than anywhere else on campus. LINC is a true teaching and learning center for OSU.

University Research Initiatives with National Impact

Given the documented success of LINC and the teaching-and-learning-in-the-round space design, The Geometry of Learning research group has developed inter-institutional relationships and is planning a national conference on teaching-and-learning-in-the-round. This research group includes members from UCLA and Texas A&M which is constructing a facility with teaching-and-learning-in-the-round spaces. There is a sufficient base of universities who have adopted the teaching-and-learning-in-the-round space design to warrant a national conference on the design, research, and teaching strategies related to these remarkable learning spaces.
Pioneering a New Model for Higher Education

The entire higher education community is served by OSU’s bold and original use of teaching-and-learning-in-the-round spaces, which were unprecedented in higher education. The result is a transformation of the academic lecture. Dozens of universities have visited LINC to see first-hand and experience the impact of these spaces. Ten other universities have, or are planning to, adopt the teaching-and-learning-in-the-round design based on the LINC example. This is a major contribution to learning space design in higher education which opens potentials for new teaching strategies.

Enthusiastic Faculty + Students

The key element of teaching-and-learning-in-the-round is that every student can see every part of the room. That enhanced visibility includes the instructor, wherever they may be, and all of the other learners. Faculty teaching-in-the-round have a greatly increased range of mobility as they may address the class from any point in the room with full continuity of learner attention. With 600 students in attendance, the instructor may move from the center to the circumference in seconds because it is so close. Since they wear a wireless microphone and control the audio/visual from an untethered tablet, faculty are untethered from the podium and may put their lectures into motion. This allows a pedagogy of metonymy in which the part (one or a group of learners) stand for the whole (all of the learners).

Students report that when the instructor moves to engage with other students directly, they feel involved in that interaction. This pedagogical technique is distinct from the conventional lecture in conventional rectangle spaces in which the instructor faces the class and engages with individuals by pointing. When faculty do leave the front of a rectangle lecture room some of the students can no longer see them. When teaching-and-learning-in-the-round, the instructor may quickly move to any of the rows, allowing learners to participate hands-on with the visual presentation (i.e., drawing on projected slides). Faculty in the teaching-and-learning-in-the-round spaces report that they experience more direct engagement with learners in all parts of the room compared to conventional spaces.
RESULTS OF THE PROCESS + PROJECT
UNINTENDED RESULTS + ACHIEVEMENTS

Hosting Institutions from Around the Country

An unexpected result of LINC is the continual flow of colleagues who come to visit our learning spaces. Every term since LINC opened an average of five formal tours of LINC are conducted for visitors from other universities and architectural firms. Hundreds of university administrators and faculty from the US and internationally have come to LINC personally to experience the teaching-and-learning-in-the-round rooms. They meet faculty, staff, and students. Sometimes they come as skeptics and leave as advocates for teaching-and-learning-in-the-round.

Texas A & M University visited LINC in 2016, and the design team is currently building a 21st Century Classroom Building for the institution, which includes 290-, 375, and 600-seat (below) Arena classrooms as well other innovative learning environments.

A Shining Example of OSU’s Investment in its Community

OSU learners are explicitly proud of LINC. Befitting that sense of pride, LINC has a low level of vandalism and theft even though it is one of the most populated buildings for longer hours than most. An unexpected and delightful result of LINC is the continual flow of students who bring their families and friends to LINC in personal tours. As Jon Dorbolo, Associate Director of Technology Across the Curriculum observes; “I have been in higher education for thirty-five years and have never before seen students bring their out-of-town friends to see a classroom, but that’s exactly what frequently happens in LINC.”

Tours of the Learning Innovation Center

2015
- Warner Pacific College

2016
- Washington State University
- George Fox University
- University of Washington
- Portland Community College
- Texas A&M University

2017
- Georgia State University
- Jesuit High School
- University of Illinois, Chicago
- Gonzaga University
- University of California, Los Angeles
- Hebei University
- Portland State University
- Anhui Normal University

2018
- Brigham Young University
- Inter-Institutional Faculty Senate
- University of Helsinki
- Northern Arizona University
- PAC12 Deans
- Western Oregon University
- University of Michigan
- University of Oregon

2019
- University of California, Riverside
- University of Illinois, Champaign-Urbana
- University of Oregon
- Indiana University
- University of Hawaii
- Ball State University
- University of Helsinki
- Colorado State University

LEFT
Rendering of the new 600 seat in-the-round classroom currently in construction at Texas A&M University