Metropolitan Universities Journal

Transformative Learning

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Transformative learning, like the Coalition of Urban and Metropolitan Universities (CUMU), has experienced substantial growth during the past few decades. The original research conducted by Mezirow (1975), who is considered the originator of the transformative learning theory, was focused on individual change: women who had been out of the workforce and were reentering. The experience was challenging in many ways, as issues of self-concept, existing frames of reference, and assumptions were beginning to change. Mezirow described the process as a structural reorganization: something that necessitates reconceiving concepts of self and one's relationships (Mezirow, 1978).

Students in higher education are voluntarily placing themselves in an environment they hope is safe and that provides them with paths to a better life. At its simplest level, for the traditional student, the transformation would be from adolescence to adulthood. If that is not a "disruptive dilemma" as Mezirow terms it, then what is? Older, non-traditional students, though, are often seeking a career change of some sort, such as the women reentering the workforce who Mezirow focused on for his initial research.

Mezirow's work is often viewed as being psychological in orientation and hence not seen as addressing social change, but this can become a "chicken or the egg" discussion. Which comes first, personal change or social change? What the authors in this volume do is present strategies in which both the community and the individuals involved have equal opportunity for transformation.

George Kuh (2008) came to the idea of High Impact Practices from the perspective of student engagement. Recognizing that not all student learning occurs in the confines of the classroom or lab, Kuh identified ten particular engagement activities that helped students' learning (some now number these at 11, with the addition of e-portfolios to the list; Watson et al., 2016). Amongst these activities are service learning/community-based learning, internships, and capstone projects. All of these approaches to student development, learning, and success can and do connect strongly with the city and regional areas served by metropolitan universities. Kuh's concepts fit well with the concept of transformative learning. They suggest that student learning benefits by participation in activities that take students out of the classroom and into the community in some fashion.

The early work of Mezirow is now viewed more broadly and links with the activities that carry students to learn outside of the classroom. For this issue of *Metropolitan Universities*, we focus on how institutions are helping large numbers of students to transform from adolescents to professionals in a field, or to re-design their lives through formal education.

As guest editors, we (Ed Cunliff and Jeff King) are gratified to be contributing an article about how our institution, the University of Central Oklahoma, came to Transformative Learning (TL) as a focus in helping students learn. As Oklahoma's only metropolitan-serving institution within

the Regional University System of Oklahoma, understanding the history of a successful and ongoing TL initiative that has been operationalized in an evidence-based process can be important when seeking natural alignments between a teaching/learning approach to which a university commits and the potential for such an approach to serve metro partners and the community to the best degree possible. We offer this in hopes it can provide some guideposts for other institutions who decide to travel the TL path.

Every metropolitan area needs "professional managers with strong sustainability principles and standards," as say Brunnquell and Brunstein in their article. Metropolitan realities in the 21st century are such that a sustainability ethos is requisite for the continuation of the city and region. Quality of life can be threatened in the absence of widespread managerial expertise in, and commitment to, sustainability. Ensuring such ethos and skill in this segment of the workforce naturally falls to metro-serving institutions, from which these managers and managers-to-be will graduate. The authors pose an intriguing idea about Transformative Learning-focused sustainability education within schools of business that moves from problem-solving to problem-posing as part of a critically reflective process that will help ensure that metro-serving institutions produce sustainability-minded future managers.

Reitenauer, Draper-Beard, and Schultz write about "the transformative power of encounter" in their description of Portland State University's Inside-Out Prison Exchange Program situated within the PSU University Studies program. Sharing personal stories of transformation from an "inside student" (incarcerated), an "outside student" (PSU junior), and the PSU faculty member teaching the course, this article describes the history, institutional decisions, and activity that led to launching and maintaining Inside-Out participation, and—in the words of those changed by the experience—the program's transformative impact.

The role of the teaching and learning center at metropolitan universities is central to the development of a Transformative Learning focus in the curriculum and co-curriculum. Partnering with agencies in the metropolitan area, in service to that end, is a win-win for the university and the metropolitan community. Ableser and Moore describe how Oakland University increased community engagement via its Experiential Learning initiative as well as helped faculty and staff become more practiced in TL strategies by implementing a Universal Design for Learning (UDL) approach. Full of recommendations and tips, this article is both descriptive and prescriptive for success with TL at metro-serving institutions.

Metropolitan State University Denver was the host of the 2017 CUMU Annual Conference, and Golich, Haynes and Kreidler, from MSU Denver, provide an excellent example of how an institution can forge connections to benefit stakeholders. They describe how they have worked with employers to develop opportunities for students and to connect with economic drivers in Colorado. The approach they have utilized is to look first to the employers and discover their needs and then to match the academic and student work to help fill that gap. This shift is an important change in perspective for working with our metropolitan communities.

Layne, Kidwell and Carney describe a capstone course that helps students transform through a program that connects them with real world problem solving in the agricultural and food service industries. The connection they describe helps students obtain some of the skills that might be

difficult or impossible to get solely in the classroom setting. This is an opportunity for students to better transfer learnings to work environments, and also helps faculty and industry create stronger communication systems and bonds.

Sims and Scott offer insight into diversity programs from two different universities. They address issues in diversity that are part of metropolitan areas in highly replicable fashion. The transformative nature of the programs are well-founded in Transformative Learning theory, and are described with clarity, thus facilitating replication. Both programs are strongly driven by faculty initiative and are managed in self-sustaining models that allow direct benefits to students and to the institutions.

We are grateful to *Metropolitan Universities* editor Valerie Holton, PhD, for offering us the opportunity to co-edit an issue on transformative learning in *Metropolitan Universities*. Having started our separate careers during an era when "town and gown" was the phrase used to describe the relationship between higher education institutions and their home communities, it is exciting to now be in an era where collaboration and mutual benefit are the focus.

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Institutionalizing Transformative Learning: The Trees, then the Forest, then the Realization

Ed Cunliff and Jeff King

Abstract

Finding a sense of authentic self as an institution, a true sense of mission, and the means to live that mission were the central focus of a strategic planning process addressed by the University of Central Oklahoma about fifteen years ago. As the institution grew within a metropolitan-serving mission, the goal to transform students from adolescents to adults and find new potential in their lives led to an exciting journey that is still vibrant and relevant today. The theoretical base provided within transformative learning has helped students, staff, and faculty align efforts. This case study provides replicable processes and specifics that may help others find a clearer path for fulfilling their mission. The study describes how the University of Central Oklahoma's (UCO's) transformative learning focus coalesced and became the point of distinction for a UCO education, helping to ensure that all activity supported our mission—helping students learn. The compelling, lived sense of mission developed from the initial strategic planning process has helped to strengthen the learner-centered culture of the campus while providing a structure that facilitates implementation and assessment.

Transformative Learning

Jack Mezirow's foundational work beginning in the mid-70s is widely considered the origin of transformative learning theory (1981, 1990, 1997, 2000), although its roots can be traced back to humanistic psychology, adult learning theory, and constructivist learning theory. Mezirow commented that: "A defining condition of being human is our urgent need to understand and order the meaning of our experience, to integrate it with what we know to avoid the threat of chaos" (Taylor & Cranton, 2012, p.73). This phenomenon is a natural part of growing up human. we make meaning of our life experience and create a framework from which to operate and act in the world.

Students of all ages, as well as organizations, connect with the world of higher education within a framework established through experience. They come with an eye toward expanding their worldview; transformative learning is about expanding that view, and as such is a natural process within higher education. Whether it is through the experience of an adolescent on the path to adulthood, an adult ready to enter a new career, or an organization seeking to broaden its perspective by bringing in new views, transformative learning has a growing place in higher education.

Transformation of perspective is a key principle of transformative learning (Dirkx, 2012; Mezirow, 1990). Jack Mezirow's foundational work in transformative learning, and the work of scholars following him, such as Patricia Cranton, emphasize a changed perspective resulting from grappling with events, ideas, and circumstances that challenge a student's status quo

thinking. True transformation guides students to discoveries about themselves, to realizations about their relationship to self, others, and the world, and to understandings that transcend the bounds of disciplinary content.

Cranton (2002) distills the theory of transformative learning in this manner:

> At its core, transformative learning theory is elegantly simple. Through some event . . . an individual becomes aware of holding a limiting or distorted view. If the individual critically examines this view, opens herself to alternatives, and consequently changes the way she sees things, she has transformed some part of how she makes meaning out of the world. (p. 64)

Morrell and O'Connor (2002) provide a perspective that reflects the depth of change involved in the concept:

> … a deep, structural shift in basic premises of thought, feelings, and actions … a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-locations; our relationships with other humans and with the natural world… (p. xvii)

The changes implied within the framework of transformative learning are not superficial, involving the mere memorization of facts; instead, they align more with one of the basic tasks of undergraduate work, which involves transformation from adolescence to adulthood. Benjamin and Crymble (2017) found that youth described the transition as involving three accomplishments: physical responsibility for self, emotional competency, and career attainment (2017, pp. 252). Illeris (2014) succinctly defines transformative learning in a manner that fits well with the transitional perspective of adolescents to adulthood: "The concept of transformative learning comprises all learning which implies changes in the identity of the learner" (2014, p. 40).

Transformative Learning Meets the University of Central Oklahoma

The changes or accomplishments that students make as they move from adolescence to adulthood are significant transformations, and assisting our students remains part of the many challenges of higher education. It was the recognition of the University's role in this transformative process that encouraged the framing of activities as part of a larger transformative learning process. From this point, the idea of transformative learning began to grow on the campus. UCO's current working definition of transformative learning calls it is a holistic process, which puts students at the center of their own active and reflective learning experiences.

UCO is Oklahoma's only "metropolitan university" as identified by the Oklahoma State Regents for Higher Education. UCO's demographics, program mix, student body, faculty, staff, and institutional processes look similar to many mid-size, regional state universities. UCO has about 16,500 students. It is masters-comprehensive in nature; it includes a large and successful teacher education program, serves a high number of commuters, and yet maintains a strong on-campus life for those who choose it. The institution's unique attributes include an international

population of about 9%, and a Forensic Science Institute noted as one of a select few nationwide that offers both bachelor's and master's degrees.

UCO operationalizes transformative learning via the Central Six Tenets here described. Its program has replicable elements in terms of helping students learn and creating an over-arching campus climate, which, for UCO, has its basis in transformational learning. The core idea of "helping students learn" as the mission of the university brought together disparate initiatives into a unified framework. This simple mission focus aligns on the mindful, intentional creation of educational experiences, designed to expand graduates' perceptions of the possible, because they have a deeper understanding of themselves, others, and their communities. Elements of the transformative learning mission are present in the tenure and promotion policy for faculty, in internal grant requirements, and in collaborative programs that include faculty, students, and staff. Creating a "real world" higher education experience, blending the campus and the community, is essential to an understanding of transformative learning.

Transformative Birthing: A Case History

Is it a common occurrence for a major university strategic plan to land on the shelf, collecting dust? If that sounds familiar, then the beginning of the story might have repeated at UCO. What may be different is that under the guidance of Dr. Don Betz, UCO's Provost during the early stages of this process, the academic units continued to push forward the strategic planning effort. Betz, now UCO President, understood the value of a clear focus for moving an institution forward. The academic side of the house persisted in its efforts to formulate and act upon the strategic plan in a manner that would ultimately unite all units under the shared goal of helping students learn through transformative learning experiences. The president's office also invited two other units, Student Affairs and Administration and Information Technology,to attend and participate in Academic Affairs retreats and planning sessions.

In a highly interactive strategic planning session, utilizing concepts from Bennis, Benne, and Chin (1969) that stretched over a two-day period, the Deans and the Provost's staff focused on revising and formulating the institution's mission and values from the academic perspective. The consensus process utilized in the strategic planning resulted in a mission that began simply with *helping students learn*. While there were those who wanted to leave the mission with the simple and primary focus of *helping students learn*, the fully crafted mission statement became:

> The University of Central Oklahoma (UCO) exists to help students learn by providing education experiences to students so that they may become productive, creative, ethical and engaged citizens and leaders serving our global community. UCO contributes to the intellectual, cultural, economic and social advancement of the communities and individuals it serves. (University of Central Oklahoma, n.d.).

This mission ultimately led to the development of transformative learning at UCO.

On a parallel timeline, though much more organic in its origin, multiple and seemingly disparate programs were brought to campus and gained support from faculty, staff, and students. The American Democracy Project, Undergraduate Research, First-Year Experience, Service

Learning, and similar programs received a significant amount of attention, offices, and full- or part-time staffing. These programs shared active, experiential learning strategies that could inform both the curricular framework and in co-curricular activities. These and various other programs all intended to help students learn and had essential connections to mission, yet they transcended the curriculum. These programs are often the purview of student affairs and do not lie within the normal scope and practice of academics. George Kuh and his research would ultimately corroborate the value of these programs in his monograph: *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* (2008).

In addition to the strategic planning effort, a second element that strongly influenced the institution's transformation at this point was a concern shared by most institutions of higher education: how to focus on assessing educational practices. Determining how to measure the various elements of the strategic plan unintentionally spurred the recognition that there were, in fact, significantly connections among these disparate programs. While each program, whether First-Year Experience or Service Learning, needed to be assessed on its own, all programs could be measured together, because all contributed to the overall transformation of undergraduates' perspectives about their individual connections to content, self, others, and the community on local, national, or global levels. This second recognition played a significant part in bringing together the different program perspectives; the implementation team was able to consider the connections rather than the separation, boundaries, or silos between the programs. It was during this process of developing assessment frameworks that the term "transformative learning" first emerged. A theoretical framework did not prompt the term, but rather the practical challenge of evaluating what was done (or said to have been done) educationally. Thinking about assessment clarified a point of connection that neatly paralleled the strategic planning effort. Returning to a holistic, connected framework supported the shared superordinate goal of helping students learn.

The third significant force was the Office of Academic Affairs' desire to collaborate with constituents across the campus. Acting against the natural tendency to protect turf, the Vice President of Academic Affairs reached out to other units and invited them to participate in planning activities. This invitation initially implied "listen and comment," but progressed to a more inclusive process. There was also an intuitive understanding that the university was a single system and its various units operated with the singular goal of helping students learn. The Vice Presidents of Student Affairs, Enrollment Management, Information Technology, and Administration were invited to semi-annual retreats addressing the academic strategic plan, and became regular attendees.

The three aforementioned processes pursued the same mission and commitment to students' learning, more than by any formulated strategic model. John Dirkx (2012), a leading scholar in the area of transformative learning, might consider this within the concept of "soul work," guided by the heart because the commitment stemmed from a deep appreciation for students and all participants involved in the learning process. This point in the UCO transformation is also indicative of systems thinking within an inclusive atmosphere, in this case a moment when the vice presidents from all areas came together to formulate a single model. The vice presidents, working within the President's Cabinet, collectively formalized and created the Central Six Tenets, thus giving all other factors a formal, university-wide direction. It was at this point that the concept of transformative learning was officially included in the mission, reading:

The University of Central Oklahoma (UCO) exists to help students learn by providing transformative education experiences to students so that they may become productive, creative, ethical and engaged citizens and leaders serving our global community. UCO contributes to the intellectual, cultural, economic and social advancement of the communities and individuals it serves" (University of Central Oklahoma, n.d.).

This revised mission statement and the Central Six Tenets (discipline knowledge; global and cultural competencies; health and wellness; leadership; research, creative and scholarly activity; and service learning and civic engagement, more conveniently termed the "Central Six") became the foundation for UCO's transformative learning.

What does it take personally and professionally to accomplish such goals? Among several factors, the UCO campus model suggests a willingness to share, which often involves giving up tightly managed ownership or giving up turf and silos to support the entire institution and its mission. The concept of *synergy* is critical because it allows the production of a win-win situation to support student learning. Perhaps most importantly, the commitment to students must be lived and not just discussed. As UCO solidified its commitment to the Central Six principles, it was important to have the sense that specific actions adopted worked in support of the research regarding High Impact Practices.

UCO's Central Six Tenets	Kuh's High-Impact Practices
Discipline Knowledge	First-Year Seminars
Leadership	Common Intellectual Experiences
Research, Creative, & Scholarly Activity	Learning Communities Internships
Service Learning & Civic Engagement	Service Learning
	Capstone Experiences Writing-Intensive Courses
Global & Cultural Competencies	Collaborative Assignments & Projects
Health & Wellness	Undergraduate Research
	Study Abroad & Other Diversity Experiences

Figure 1. UCO's Central Six Tenets juxtaposed against Kuh's High Impact Practices.

Creating Your Own Synergy

In the authors' recent presentation at a teaching/learning conference, a participant commented that while he liked the ideas presented, the case history, and the story, his institution remained staunchly siloed and wondered what steps he might take to enhance their synergy. Although the authors responded in the moment, the question has propelled a deeper consideration of the forces

that make such an effort work. The following are lessons learned and guidance offered, with a cautionary note that this is an on-going process.

People

Processes such as these always start with people, both in official leadership roles and those at an operational level. Higher-level support is important, though depending upon the level of the action taken; it might mean the dean of a college, a department chairperson, or, as in the case of UCO, vice presidents working with presidential approval.

The active involvement of mid-managers. While formal approval of the transformative learning mission occurred at the VP level, several program directors became involved, offering various experience levels with faculty assignments or different sides of divisional units such as Student Affairs and Administration. Involvement has taken many forms, but one of the most visible is through a structured form of advocacy in which faculty members, recommended by their academic deans, serve as advocates for each of the Central Six Tenets. Deans and unit managers also play a supportive role when they nominate faculty and staff to serve on the university-wide committee that helps with the planning of the annual Transformative Learning Conference (see below) and other activities.

Staff can submit projects for Student Transformative Learning Record (STLR) program (described later), and may serve on projects with faculty and students. One such team, as an example, is involved in a research project related to K-12 and higher education leadership development. Department chairpersons led discussions in departmental meetings to help their faculty determine, for instance, wording on syllabi about the Central Six Tenets. As is always the case, faculty were critically important, and many UCO faculty certainly became "pioneers" in terms of their involvement. The same applies to program directors in areas such as service learning, who eagerly stepped forward and embraced opportunities for collaboration. It is important to respect the contribution of each individual and office, a task partially accomplished by recognizing where each has contributed in their current role. Faculty may say, "I've been doing that (in UCO's case, transformative learning) for a long time," and there is likely truth in that statement. Accepting the current contribution of people is essential.

Personal traits and characteristics. First, some of the people involved in the process must have legitimate authority, with the ability to make things happen. This might be a faculty member directing a class, or a director of the American Democracy Project, or a VP in Academic Affairs. One of the strongest authoritative messages within the UCO plan was the alignment of budgeting processes to elements of transformative learning practice, such as direct support to faculty involving undergraduate students in research efforts. This alignment process had strong support from the UCO Academic Affairs office.

Authentic leaders are second characteristic of people to involve, according to Northouse (2012) in his book *Leadership: Theory and Practice*. Authentic leaders are individuals who will support efforts to help students learn even when it is beyond their own personal or departmental interests. They will unite their individual interests and the interest of the whole. The UCO Wellness Center's director understood John Ratey's research and his 2008 publication (*Spark*), which

showed a significant relationship between health and learning. The director made a great partner in the early transformative learning institutional efforts. He created an interdisciplinary committee to help make connections among faculty, student affairs staff, and Wellness Center personnel. This action-focused team continues to renew itself through a bi-annual needs assessment and planning effort aligned with the mission.

Focus

There is tremendous power in focus, requiring not a rigidity of mind but the ability to adapt while knowing and creating a path. In the early days of the UCO process, an umbrella was identified that allowed the unification of previously disparate programs. That umbrella, as described earlier, was named transformative learning, and the components were the Central Six Tenets. That focus has remained constant through its manifestation in particular programs, morphing and adapting as the environment has changed.

Leaders often feel that it is their charge to create new programs, and UCO did that within the Central Six framework. The Provost and the President both had the commitment to highlight transformative learning and the Central Six in almost every major presentation on and off campus.

This focus and branding of transformative learning and the Central Six coincided for faculty and staff and provided a sharable community terminology. Students have also adopted the terminology, helping to keep the focus. While UCO has not reached unanimity, the central nature of transformative learning is apparent in the ethos: it was the first and primary point in the construction of the most recent strategic plan for 2020.

Alignment

Alignment has contributed greatly to the progress of UCO transformative learning efforts. Planning, budgeting, policy, and procedure must ensure that decisions are consistent with the focal message, and new programs, academic or co-curricular, need to align in some way. Alignment ought not to restrict innovation, but to encourage it. Transformative learning terminology appears in policies, such as the generic elements of class syllabi, supporting the theme.

Educational and professional development opportunities have encouraged transformative learning. A case of walking the transformative learning talk occurred with the university's 2011–2012 revitalization of the faculty development unit, raising its profile and re-branding it with the name, "Center for Excellence in Transformative Teaching and Learning." Similarly, the institution financially supports faculty when they make state, regional, and national presentations about the transformative learning model. Internal grant opportunities are available to support course re-design and other activities to find innovative ways to support transformative learning, and on-going development programs have transformative learning as a central theme.

Learning Space

The construction of UCO's Center for Transformative Learning, which opened in 2010, was the ideal symbol for the mission focus, and its thoughtful design continues to function as an ideal learning space. The building, now commonly referred to as the CTL, demonstrated the university's commitment to transformative learning.

The building's design is a dream for faculty if they value interactive learning. The CTL building is spacious, with many areas for students to gather in small groups or one-on-one to study and collaborate, and UCO intentionally designed the classrooms with no "front" so the faculty member is physically encouraged to work with an interactive format. Tables and chairs are all on wheels, allowing faculty to reconfigure the room in a matter of minutes with minimal effort. Classrooms present three walls equipped with displays for the projection of visuals, and two walls are also equipped with rails to support huddle boards (small portable white boards) that can be easily lifted and placed on tables so students can gather around, graphically brainstorm, or create finished visuals, after which boards can be hung up for full-class discussion.

Classrooms in the CTL serve as innovation-prompting instructional spaces for those who teach in them. Each college on campus "owns" two classrooms in the building emphasizing a cross-disciplinary approach to transformative learning. Such an approach realizes a benefit, not solely because more students experience the learning space, but also because of the interdisciplinary collegiality that organically occurs when the faculty member across the hall is from a different college.

The CTL's classrooms have become a model for many other classroom renovations on campus. Amidst a movement in higher education toward friendly, active-engagement learning spaces, UCO's experience with these kinds of instructional environments is favorable from both students and faculty

The institution sent a strong message of support to faculty who wanted to widen their knowledge of instructional strategies, including things like "huddle boards," instantly reconfigurable table/chair layouts, and "frontless" classrooms, by locating the Center for Excellence in Transformative Teaching and Learning (CETTL), the faculty development unit, within the new building. This location puts faculty support inside interdisciplinary teaching space designed specifically to enable and support teaching that transforms students. As faculty development offerings around transformative learning have grown, the CTL has been pressed into service as the space for new faculty training, the meeting area for Learning Communities for the Scholarship of Teaching and Learning, and a gathering place for book discussion groups around transformative learning and other topics. CETTL's 21st Century Pedagogy Institute hosts and supports these meetings and provides an evidence-based structure for faculty to develop and improve teaching practice.

Courageous Collaboration

Collaboration is not easy in any setting and usually involves shifts in power dynamics. If perceived as a zero-sum game, someone must lose while someone else wins; however, with a strong focus and committed individuals, collaboration can become synergistic, a true win-win opportunity. Collaboration is not just a matter of finding the right people: leaders must frequently reiterate their support for the collaborative ventures, especially in high-profile meetings and public forums. If there is a give-and-take involved in the process, then top-level leadership must be sure to provide that support. Nothing should be lost because of collaboration, with position and authority undiminished as a consequence of collaborative effort.

The same holds true for innovative processes; faculty may feel vulnerable to innovations that have a risk of failure, as it could negatively affect student evaluations and potentially put promotion or tenure at risk. Such circumstances are a good example of how and where the faculty development operations can be pro-active with information, workshops, consultations, and other supportive activities. In addition, administration has the opportunity to be congruent in its message and execution that experimentation, in order to create more transformation-prone learning activities and environments, will be honored, as in the UCO model. This creates the sense that faculty and administration are all working toward the same goals by actions, not just words.

One initiative at UCO, designed specifically with alignment in mind, was the Transformative Learning Steering Committee, a group that began initially as a conference committee managing a campus-wide day of discussions about transformative learning. From its inception, the committee was comprised of representatives from Academic Affairs (including faculty), Administration, Information Technology, and Student Affairs.

In late 2012, the Provost and the Vice President of Student Affairs charged the committee with a new mission: to be the "face of" transformative learning at UCO, transforming it into a steering committee with a much broader purpose and responsibility. Concurrent with this change the Transformative Learning Conference (http://www.uco.edu/tlconference) took on a new, higher level of prominence, moving from a solely UCO event and conversation to being an off-campus, metropolitan-venue conference with high-profile keynotes and featured presenters, while still maintaining a conversation-based approach in concurrent sessions about transformative learning. This raised profile of the conference has helped it grow; it is now in its 12th year.

Figure 2. Individual components of UCO's Transformative Learning Initiative.

Assessment

As mentioned previously, the small group that was first to use the terminology "transformative learning," had initially come together to talk about issues of assessment. It was important, therefore, to identify or create tools and processes to measure the degree of success in helping students develop within the areas that were to become the Central Six Tenets. UCO still struggles, on occasion, with specific aspects of the assessment process, but has found various answers in different locations that may assist others.

Transformative learning is not so different as an approach to teaching and learning that it varies dramatically from widely regarded good practices in assessment. For example, Angelo and Cross (1993) identify seven basic assumptions about good assessment (pp. 7–11), and Astin, along with his eleven co-authors, present nine principles of good practice for assessing student learning (1992). Guidelines for quality assessment such as these apply to transformative learning, as does the rationale for authentic assessment (Wiggins, 1990).

Assessment of transformative learning must address both the individualized nature of the process and the meta-conceptual framework; measuring it at the micro-level might satisfy some but could easily miss the larger focus. Transformative learning serves as a guiding principle, often

reflected in some meta-type instruments, such as NSSE (National Survey of Student Engagement) and UCO's GSS (Graduating Student Survey). Similar large-scale instruments can also help present a broader picture—the American College Health Association-National College Health Assessment, for example. This certainly tells us something about our success with students relative to our Health and Wellness Tenet among the Central Six There is also useful information within a variety of discipline-related instruments often used for special accreditation, and it is only a matter of mining the data to use this information. Requirements from disciplinary accreditors to assess the degree to which students achieve learning outcomes, for example, can provide opportunities to measure success in areas such as those represented by our Central Six.

Because UCO is one of the institutions participating in The Quality Assurance Commons Essential Employability Qualifications Certification (EEQ Cert: https://theqacommons.org) project, a Lumina Foundation-funded initiative, the institution is working with other institutions to help define what a certification process might look like concerning beyond-disciplinary skill development within programs and across UCO. Student development in our Central Six maps directly to EEQs as conceived by The Quality Assurance Commons, ultimately providing yet another mechanism to assess transformative learning efforts.

As UCO continues to refine its assessment of transformative learning, its Institutional Assessment unit is adapting as useful measuring tools the Association of American Colleges and Universities (AAC&U) VALUE Rubrics (Valid Assessment of Learning in Undergraduate Education) which connect to the institution's Central Six Tenets. These rubrics, for instance, are figuring prominently in UCO's continuing refinement of the Core Curriculum.

Each individual has a unique story of transformation, and those stories can be gathered and analyzed via qualitative analysis techniques. UCO's Transformative Learning Steering Committee has been engaged in this research approach, directing IRB-approved research projects employing both qualitative and quantitative analysis of information gathered in surveys, one-on-one interviews, focus groups, student narratives about transformative learning, and from other sources. In addition, the Assistant Director dedicated to assessment of UCO's Student Transformative Learning Record initiative (see below) leads a robust evaluation of how well faculty members are implementing transformative learning practice and to what degree students are benefitting from it.

Anecdotes and qualitative analysis are extremely useful and powerful sources of information, especially related to concepts with inextricable affective components like those inevitable in transformative experiences (Taylor, 2001). At the same time, there are many aspects of transformative learning that result in student change in psychomotor and cognitive domains, and it is important to capture those gains as well.

UCO has now added student transformative learning achievement data (as generated via the STLR process described below) into institutional data analytics and the predictive modeling mix. In advance of that, fall 2015 to fall 2016 student achievement and retention results showed the transformative learning tool and process associating with strong positive gains, in many cases into the double digits (and verified at $p<.001$ levels for these large-N analyses). Subsequent fall-2016-entering students tracked into their sophomore years as well as fall 2015 students tracked

into their junior years also show double-digit retention numbers compared to students who did not have the transformative learning experiences generated via STLR. These gains are shrinking the gaps in achievement and retention that have existed between students who are and who are not low socio-economic-status (SES), underrepresented, and/or first-generation. The data for the entering cohort of first-time/full-time freshman in fall 2016 show improved gains, indicating that STLR creates an improving positive impact.

Regarding assessment, the suggestion would be for institutions to use what they have while pursuing what they think might be a better tool to assess success with something as ambitious as transformative learning.

Transformative Learning: A "Stellar" Approach

Though transformative learning as an organizing principle may have arisen organically at UCO, the university community has become intentional in designing assignments, activities, and environments meant to prompt student transformative experiences. The institution conceived the Student Transformative Learning Record (STLR, pronounced "stellar": http://www.uco.edu/stlr) process as a crucible of intentionality for transformative learning, and committed institutional funding to move ahead. Six months later, the vision for STLR gained validation, in the form of a multi-year U.S. Department of Education Title III Strengthening Institution Program Grant of several million dollars.

Briefly, STLR is a process whereby faculty connect at least one assignment in their courses to one or more of UCO's Central Six Tenets. The assignment is usually an existing one that, with careful planning, can connect to a tenet and produce a student-learning artifact that faculty may assess using STLR rubrics (built on the AAC&U VALUE rubrics, mentioned above). Faculty eventually push the artifact, the rubric used to assess it, and the achievement level reached to the student's STLR e-portfolio.

An example: For years, a statistics instructor has used a dataset from a textbook for an assignment on Central Limit Theorem. By using, instead, a real-world database describing kilometers walked from different villages to the nearest sources of potable water, the instructor could add a reflective prompt to the assignment associated with UCO's Global and Cultural Competencies (GCC) Tenet. Such a prompt might intend to elicit students' perspectives about the differences between their lives and the lives represented in the statistics students accessed for the assignment. The instructor will grade the assignment as usual but then assess the STLR artifact (the written reflection) using the GCC rubrics.

A similar process exists for co-curricular learning, except that students attending a Student Affairs event, where "student-teacher ratios" might be hundreds to one, automatically attain only the lowest level of transformative engagement, "Exposure," by virtue of a student ID card-swipe process integrated into STLR. Student Affairs professionals manage by exception those students who might deserve a higher rating, requiring an artifact of those students and assessing it using the STLR rubrics. UCO devised an awkward but effective way to capture this in a Learning Management System "pseudoshell" created for the event. For example, the Asian Moon Festival

becomes a "course shell" where Student Affairs staff can assess the transformative learning artifact requested of a student who demonstrated leadership in organizing the event.

A mobile student app allows students to track their progress across all three levels of potential transformative impact— "Exposure," "Integration," and "Transformation"—in each of the Tenets. In a future phase of the app, students will be able to see upcoming term tenet-associated courses (down to the section level) and Student Affairs activities as they plan their course schedules.

The STLR e-portfolio might be the "end product" of UCO's transformative learning concerning what students do with the proof of their achievement within each of its tenets. Graduates can grant to a potential employer access to the two best exemplars in their e-portfolios of a tenet particularly relevant for the sought-after job, for instance, in advance of job interviews. UCO has been working closely with its STLR Employer Advisory Board, but knew previously that employers wanted to know more about potential hires than what shows on their academic transcripts.

UCO believes the STLR e-portfolio will provide such information to potential employers. The e-portfolios, though, are not mere repositories of STLR artifacts. Students must create useful, employer-friendly presentations of self that provide quick answers to what hiring managers want to know. This means institutions must train students in the creation of their STLR e-portfolios, potentially within capstone courses, which are required in all UCO programs.

While the STLR e-portfolio is where students present tangible proof of transformative learning, a student-customized presentation of STLR achievement conveniently appears on the UCO Comprehensive Student Record (CSR), which unifies a record of STLR achievement with the academic transcript. Students have control of the STLR portion of their CSRs and are able to customize multiple versions, similar to what one might do in customizing versions of a résumé. UCO believes this is important, as students make sense of their beyond-disciplinary learning and make choices to prioritize experiences as they present themselves to others. They can only customize, however, from among their official STLR achievements, thereby ensuring the integrity of the information via an evidence-based, authentic assessment process. As a unification of the academic transcript and the STLR record, the CSR is official in every way and carries the registrar's stamp.

With the CSR now in operation and students able to access and customize these records, UCO is in early stages of requiring CSRs when students apply for positions on campus, student worker opportunities, on-campus internships, and as part of application packages for awards. The purpose is for CSRs to provide formative developmental opportunities. Students create the CSR version they believe best supports their application, then discuss how and why the CSR demonstrates their development of the skills and ethos required to perform the duties for which they are being considered or to support their worthiness to receive the recognition for which they have been nominated. UCO students thereby gain experience in applying and interviewing for opportunities during the course of their time at the institution; such experience can prove valuable when seeking employment and/or graduate school admission.

The STLR tool and process also struck a chord with grant funders. The first was the large Title III grant from the U.S. Department of Education (mentioned above) which allowed UCO to expand faster than the original timeline devised to operationalize transformative learning when funded with only institutional funds. Next, UCO gained an invitation to the 2015 cohort of the Next Generation Leadership Challenge Breakthrough Models Incubator cohort, led by Educause and supported by the Gates Foundation.

More recently, UCO joined the initiative led by NASPA (National Association of Student Personnel Administrators) and AACRAO (American Association of Collegiate Registrars and Admissions Officers) and funded by the Lumina Foundation to be among the 12 institutions selected to design a "Comprehensive Student Record" (above). The project highlighted institutions doing innovative work to document beyond-disciplinary learning. It provided the impetus for UCO to design its CSR. Additionally, UCO received a 2016 Western Interstate Commission for Higher Education Cooperative for Educational Technologies (WCET) Outstanding Work Award for STLR.

Most recently, the institution's work with STLR has garnered an invitation to the Lumina Foundation-supported Quality Assurance Commons' Essential Employability Qualities (EEQ) project (also introduced above). Lumina-EEQ further invited UCO's Forensic Science program, as the program-level participation in place for the 14 institutions invited to the project. Because of STLR, UCO also garnered an invitation at the institution level given STLR's reach across all programs. Finally, and perhaps the most validating statement about UCO's approach, is the fact that multiple other institutions are now in process adopting/adapting STLR on their own campuses. UCO has been gratified that these adoptees include both U.S. and international institutions. Adoption by other institutions has gained further momentum, given the charge in the Title III grant that what the institution produces must be platform-agnostic, replicable, and scalable. It's also the case that STLR has passed muster with regional accreditors, both at UCO (Higher Learning Commission) and at a STLR-adopting/adapting institution, Western Carolina University (Southern Association of Colleges and Schools), which made its version of STLR the focus of its Quality Enhancement Plan for its institutional reaccreditation.

Conclusion

The UCO journey has been rewarding, frustrating, challenging, frightening, and always interesting. It has been a movement from practice to theory in terms of the recognition of the transformative learning framework, and that has worked well. This journey has also benefitted from serendipitous circumstances within the framework of strategic planning. The institution learned as it found its way, repeating a favorite expression, "building the plane while we're flying it," during the course of the journey. However, a general knowledge of systems, processes, project management, and teaching/learning theory have helped inform UCO at many places along the way. Most importantly, this journey toward transformative learning as an operational approach for teaching and learning has been about professionals committed to the broader purpose of the institution, the mission, and to creating ways to help students learn.

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Sustainability in Management Education: Contributions from Critical Reflection and Transformative Learning

Claudine Brunnquell and Janette Brunstein

Abstract

This theoretical paper discusses how the assumptions of critical reflection (CR) and transforming learning (TL) can help develop reflexive professionals in sustainability within management. The central argument is that a purely pragmatic and technical conception in the teaching and learning of sustainability does not sufficiently contribute to the development of professional managers with strong sustainability principles and standards. Therefore, it is important to employ CR and TL because they provide elements that contribute to advancement from the current teaching and learning approach, an approach based on problem solving, to another approach based on problem-posing. The reflections presented in this paper may provide elements that can help teachers, educators, university deans, and coordinators of management courses to rethink the way in which business schools, which are often the drivers for professional managers in metropolitan areas, are addressing sustainability education.

Keywords: problem-solving; problem-posing; reflexive professional; sustainability; management education

Introduction

As early as the 1970s, national and international public policy documents showed some interest in issues related to sustainability education (Wright, 2004). However, not until the 1990s did a number of intergovernmental and nongovernmental organizations begin to disseminate statements in order to engage individuals, governments, and business organizations to act for the causes of sustainability. It was then that the theme gained more prominence and became incorporated and strengthened within academic institutions (Thomas, Kyle, & Alvarez, 1999).

Literature shows no consensus regarding the definition or meaning of education for sustainability (Kopnina & Meijers 2014; Zint 2011). It overlaps with other concepts, such as environmental education and education for sustainable development. Thus, the authors shall consider these concepts as synonymous within this article. A 2003 report published by the United Nations Educational, Scientific and Cultural Organization (UNESCO) viewed education for sustainable development as a learning process of how to make future-oriented decisions in the long term. Such an education helps people understand the world in which they live, as well as its complexity and interconnectedness of problems, by developing new knowledge and skills necessary for a sustainable future.

In recent decades, the literature has reported a significant number of educational experiences in sustainability (Kearins; Springett, 2003; Svoboda; Whalen, 2004; Annandale; Morrison-Sounders, 2004; Springett, 2005; Collins; Kearins, 2007; Wals, 2010; Wals e Blewitt, 2010;

Avarelo & Mitchell, 2017; Meghann et al., 2018). However, analysis shows that current education does not yet adequately respond (Huckle & Sterling, 2008; Jones, Selby, & Sterling, 2010; Leal Filho, 2009; Tilbury & Wortman, 2004). These researchers acknowledge that environmental education, as it has been presented, does not achieve the expected results, nor has it been able to meet the growing complexity of the contemporary crisis. For Sterling (1996, 2011), mainstream education is usually part of the problem because it encourages individualism, unsustainable lifestyles, and often egregious patterns of consumption, either directly or by default. Therefore, there is a call for a paradigmatic shift to respond more adequately to socio-environmental problems, including those faced by metropolitan areas.

In the field of management, researchers such as Kearins and Springett (2003), Svoboda and Whalen (2004), Annandale and Morrison-Sounders (2004), Springett (2005) and Collins and Kearins (2007) state that current management education fails to meet the challenges of sustainability, with some suggesting an overall conceptual change to administration (Banerjee, 2004; Springett, 2005). This idea requires a new look at organizational theories, management practices, and the role of the manager and the professionals working within companies. In addition to sustainability's many conceptual, institutional, and cultural challenges, Raufflet (2013) and others question, for example, the potential of the curriculum and current pedagogical practices in administration courses to promote critical reflexive capacity in the classroom (Alvesson & Willmott, 1999; Antonacopoulou, 2010) and to prompt students to think about sustainability from a more critical viewpoint (Bevan, 2014; Wankel & Stoner, 2009).

Thus, it is necessary to rethink education for sustainability within the context of management (Banerjee, 2004) in order to develop new knowledge, skills, and values in the discipline and to prepare competent citizens and workers who can contribute to sustainable metropolitan areas and to society in general. Within this model, it is essential to apply teaching and learning approaches that will produce business professionals not solely focused on how to increase production and sales, but also on strategies to rethink ways of doing business and relating to different stakeholders.

It is in this context that critical reflection (CR) and transformative learning (TL) might inform higher education's development of graduates who become reflexive professionals for sustainability within the corporate sector. However, the question remains: *How can the assumptions of critical reflection and transformative learning contribute to the development of reflexive professionals in sustainability within the management field?*

First, it is essential to review how the meaning of sustainability education in management is contextualized, highlighting challenges discussed in the literature. Next, the article presents the major concepts of critical reflection (CR) and transformative learning (TL) theories, which will serve as the basis for discussions about the development of reflexive professionals in sustainability. To answer the research problem, the third part will present the main assumptions of CR and TL, discussing how they can contribute to the teaching and learning of sustainability in management.

Regarding pedagogical challenges, this discussion can bring theoretical elements that contribute to advancing the debate about what it means to develop reflexive professionals in administration.

Additionally, this research serves as a model for researchers, teachers and coordinators interested in promoting a sustainable rationality in management courses utilized by business school graduates who are motivated and prepared to advance sustainability in metropolitan areas.

Education for Sustainability in the Management Field

The most common understanding of sustainability, within the context of organizations, John Elkington (1997) calls "the triple bottom line," referring to a company that contributes to sustainable development while simultaneously generating economic, social, and environmental benefits. This concept's validity could become more apparent if companies did not limit their understanding to a utilitarian and functionalist logic, which ends up impoverishing the potential of the triple bottom line. This limited understanding of companies has some implications for the practice of sustainability within organizations.

Most companies end up reducing the idea of sustainable development to the concept of sustainable growth, placing the term "sustainable" only as a quality or adjective of growth, without necessarily questioning the implications of this growth for society as a whole (Lélé, 1991). In addition, the principles of sustainable development under this perspective are understood from a pragmatic approach, focused exclusively on minimizing social and environmental impacts and on eco-efficient production (Springett, 2005, 2010), thus assuming a more reactive than proactive character.

Consequently, the assumption of sustainability manifests itself as a moral mandate, a legal requirement, or an inherent cost of business development, "a necessary evil to maintain legitimacy and the right of an enterprise to function" (Hart & Milstein, 2004). The idea of sustainability often translates as a technical and legal problem inherent to any business organization in the world rather than a political and ideological position for democracy and inclusion (Springett, 2010).

The same logic also guides management courses. Sustainability is already part of the curriculum, but is mostly understood and interpreted as a reaction to legal demands of the market, government, public policies, society, nongovernmental organizations, and other systems (Bevan, 2014). Yet, there is no change in the mainstream of management; it continues to reproduce a model and theories that contribute to the unsustainable stage of production and consumption in which humans currently live. Why does this still happen? Why is it so difficult to change the rationality of management education?

Many sustainability experts agree that business schools are institutions of power that have been built and marked by thinking that seeks to perpetuate a profit-at-any-cost mentality and which esteems the valorization of individual interests in detriment to the collective (Springett, 2005; Sidiropoulos, 2014). For this reason, there is an intrinsic difficulty when it comes to thinking about management education focused on sustainability because such a focus militates a new rationality in business school curricula, where values rest upon a logic that was not included in the teaching agenda until recent years. In the business world, a market that demands exclusively economic and financial results is so ingrained into the managerial mindset that near disbelief in other drivers generally diminishes any possibility of change within these courses.

In spite of the numerous efforts towards sustainability education (Galea, 2004, 2007; Kearins & Springett, 2003; Rauflet, 2013; Wankel & Stoner, 2009), several authors keep calling attention to the fact that education for sustainability in the area of management demands a paradigmatic change, which requires rethinking the role of companies in the world and forms of management (Bevan, 2014; Brunnquell, Brunstein, & Jaime, 2015; Springett, 2005). Changing paradigms in management means breaking with technical and pure functionalism, thus proposing a discussion of values for sustainability.

This paradigm shift goes far beyond considering or simply paying attention to the social and environmental aspects in professional practice; it requires putting these aspects in the same hierarchy of importance as financial goals (Springett, 2005; Tilbury & Wortman, 2004). It also involves changes to conception and behavior; for example:

- Questioning the coherence of companies' actions, and observing the contradictions between what they do and their discourse;
- Observing and encouraging consistency between the behavior professionals as workers and as individuals, so their own consumption practices at home and within their families is consistent with sustainable practices they enact at work;
- Expanding the role of the manager, which should not be solely and exclusively to maximize profits for shareholders;
- Problematizing the responsibility of management theories and how they have contributed negatively to the social, economic, and environmental relations of modern society; and
- Questioning the meaning of the existence of the organizations.

This is not an easy task; it involves dealing with conflicts, tensions, and paradoxes (Brookfield, Kalliath, & Laiken, 2006). It requires asking the manager to review the expansion of the business, to produce less, and/or to give up part of the profit in favor of socio-environmental objectives, all of which go against most priorities within business strategy. It is in this sense that the task of management education should not simply exist to alert students to problems within sustainability or just to instruct them with tools that aim only to minimize negative social and environmental impacts, instead of work on values and proactive change for the common good (Kuchinke, 2010). Instead, a paradigmatic shift toward personal values and institutional structures is necessary for an ecological and social responsibility mindset development in management education (Springett, 2005; Sterling, 2011; Sidiropoulos, 2014).

Courses in management education should act as spaces for reflection, leading students to question the current model of unsustainable management and to think about alternatives that are consistent with sustainability assumptions. It is in this context that researchers question the central assumptions of management theories and practices; doing so is considered fundamental in the process of paradigmatic change for sustainability (Bevan, 2014; Springett, 2005, 2010). Therefore, they consider the theories of critical reflection (CR) and transformative learning (TL) as key constructs supporting the move to a new paradigm in the teaching and learning of management.

The Meaning of Critical Reflection and Transformative Learning

Literature and studies (Schön, 1983; Antonacoupoulou, 2010; Woerkom, 2004) widely debate the importance of critical reflection for professional practice, and it can still be difficult to even locate a formal definition for the term (Kember, McKay, Sinclair, & Wong, 2008). Critical reflection often appears as synonymous with other expressions such as reflexive thinking, reflection and critical thinking. Therefore, it is necessary to understand what critical reflection means, and understand conceptual differences that appear in the literature.

Discussions about reflection as a formal process in education appear to have begun with John Dewey, who is credited with the origin of the concept of reflexive thinking (Kember et al., 2008; Mezirow, 1991; Schön, 1983). For Dewey (1933), reflexive thinking is a process of knowledge construction sustained by action and reflection. In this process, students build knowledge on reflection upon action, after this action has already taken place. Thus, each lived experience contributes to enriching the repertoire of experiences and previous knowledge that will serve as a basis for reflective thinking in future situations. Dewey (1933) emphasizes that reflection is not only a sequence of units defined and linked together but also a consequence, with the result of this connection a continuous movement in search of a common end. Reflective thinking is meant to arrive at an outcome, at a conclusion, suggesting the application of thought solves a problem.

Like Dewey (1933), Schön (1983) highlights reflection that occurs at the same time as the action (reflection in action). For Schön (1983), reflection in action challenges professionals to not only apply acquired knowledge and continue to follow established and known rules and processes, but also to respond to new problems that arise in the daily life of their professions. Such knowledge and techniques come from reflection in action, which mobilizes the individual to create new mental structures based on the evaluation of experiences previously lived.

Influenced by critical theorists such as Jurgen Habermas and Paulo Freire, Mezirow (1991) makes a counterpoint to the ideas of Dewey (1933) and Schön (1983), positing that when these authors are talking about reflection, they are not necessarily speaking of critical reflection. According to Mezirow (1991), Dewey deals with reflection in the context of problem-solving, putting the consequences of action before thinking, so that humans know what they are about to face when acting. Reflection then involves "a review of the way we consciously, consistently, and purposefully applied ideas in strategizing and implementing each phase of solving a problem" (Mezirow, 1991, p.101). This process follows a hypothetical-deductive model, which is part of instrumental learning: identification and formulation of the problem, the search for evidence, hypothesis development, hypothesis testing, and its reformulation based on the researcher's feedback. Dewey understood this process as a critical investigation. However, Mezirow (1991) points out that, while Dewey's reflection ends in the formulation of an outcome as a form of conclusion, it only involves a review of the evidence supporting this conclusion (assertions taken for granted); therefore, it cannot be considered critical.

For Mezirow (1991), the problem of Dewey's conception is that he does not explicitly differentiate the function or nature of reflection. For this reason, Mezirow (1991) presents a distinction between the different roles of reflection: reflection on content, reflection on process, and reflection on premises. When faced with a situation, humans usually think about the content

of the problem (reflection on content) and the strategies and procedures to solve the issue (reflection on process). When the person questions the cause of the problem and why it exists, evaluating not only content and process but also norms, codes, common sense, ideologies, and paradigms that are taken for granted, he is reflecting on premises. The criticism of the premises is what Mezirow understood as problem-posing, and involves picking up a problematic situation considered as certain and raising questions about its validity (Mezirow, 1991, p. 105). Reflection on premises is that which Mezirow (1991) understands as critical reflection (CR).

Reflection refers to the act of intentionally evaluating the individual's action, whereas CR involves not only the nature and consequence of the action, but also includes the circumstances of its origin (Mezirow, 1995). The first is based on the solution of problems (problem-solving oriented), and the second on problematizing the origin of the problem (problem-posing oriented). Along the same lines, Brookfield (1987) explains that critical thinking refers to the questioning of assumptions previously held to be true about how the world works. Such inquiries prompt a thorough examination of what was previously unquestionable about ways of thinking and living.

In this way, they intend CR to focus on power relationship and hegemony. While these are inherent processes to any human being living in society, CR involves questioning the power relations that allow and/or promote a set of practices. This kind of reflection can prompt the realization that certain practices generally perceived as natural, common, and desirable are, in fact, constructed and reproduced by self-serving interest groups who hold the power to protect the status quo. Thus, CR focuses not only on "how to work more effectively or produce more" within an existing system, but also questions structures that support this system, evaluating morality and considering alternatives (Brookfield, 2010, 2012).

For Mezirow (1991), while thoughtful action or reflection is part of an instrumental learning, critical reflection opens the possibility of transforming our perspectives. For this reason, the concept of critical reflection is at the core of the theory of transformative learning. Transformative learning can be defined as "learning that transforms problematic reference patterns to make them more inclusive, distinct, reflective, open, and emotionally capable of change" (Mezirow, 2010, 22). When people reinterpret an experience from a new set of perspectives, giving a new meaning to an old experience, observers can say that a transformation is taking place, or that learning is transformative.

Reflexive learning involves evaluation and reassessment of assumptions and becomes transformative whenever assumptions or premises are misleading and invalid. While instrumental learning (which does not involve critical reflection) refers to the process of assigning an old meaning to a new experience, transforming learning is the process of assigning a new meaning to an experience, new or old. In this sense, the fundamental dynamic of transformative learning is to make meaning, to create new meanings for an experience. This is only possible through critical reflection on premises (Mezirow, 1991).

Finally, it is important to point out the professor/educator role in transformative learning. According to Brookfield (1987), because critical thinking is a living activity, a process of thinking about new possibilities, others, such as faculty, can facilitate it. They can foster critical thinking in their students when they listen to students' stories and experiences with empathy, act

as interlocutors, or help students create connections between actions and seemingly dissimilar thoughts, help learners to reflect on the reasons for their actions and reactions. In this way they may encourage the students to identify the underlying assumptions of their choices, behaviors, and decisions. This in turn may help students to realize that while their actions are delineated by context, they can be altered in order to be more congruent with the desires—in short, faculty teach transformatively when they provide students with the opportunity and space for reflection and analysis. Critical thinking is not only an academic process that leads students to earn high grades, write good essays, and demonstrate hypotheses, but also a way of living that helps keep them safe when countless organizations (corporate, political, educational, and cultural) try to make them think in a way that serves only the organizations' purposes and needs (Brookfield, 2012).

In the management context, the positioning of management to ensure ideological conformity without questioning the principles of the model of development is incongruous with the view of democracy and emancipation of critical educators (Banerjee, 2011). The Taylorist connotation, in which people are trained to manage others and achieve maximum productivity, does not match the social movement for democracy advocated by critical educators (Brookfield et al., 2006). Critical reflection within management education would require examining the inherent contradictions between capitalism (maximize profits as the prime objective) and democracy (emancipation and better lives for citizens), much of the study in this area tends to remain at other levels of reflection (Reynolds, 1998), not reaching critical reflection.

It is in this context that the theories of CR and TL impact studies related to education for sustainability in Management Education. The next section discusses how assumptions of these theories can contribute to the development of the reflexive professional in sustainability in the area of management.

Reflexive Professional Development for Sustainability in Management

This article proposes that utilizing CR and TL perspectives in management education for sustainability requires questioning both supposed "common sense" as well as dominant ideologies perceived as givens. For graduates entering work and community life in the metropolitan area, with its interconnected web of corporate, political, educational, and social concerns, there must exist a space in their educational plan for a review of management models and the development of new responses. Otherwise, the status quo will always remain.

What kinds of questions may arise to create disorienting dilemmas for management students that can trigger transformative realizations? Questions that can help students to make a qualitative leap, going beyond a purely pragmatic approach to sustainability education? The following examples have appeared in recent literature:

- The meaning of business success: What does success mean in the corporate world when considering assumptions about sustainability?
- How one evaluates the results of business actions: Do quantitative indicators account for measuring business success? What qualitative indicators are important to incorporate into sustainability goals and targets?

- The meaning of risk: What is the risk in the corporate universe? Economic risk only? What are other risks that management should consider, as well?
- Value creation: What nature of value are managers talking about and for whom? Economic value only?
- Nature of business impacts: What are the impacts for nature and for people? How is one's business operating, and is it benefiting or hurting others? Who is winning or losing with one's actions?
- Unidimensionality or multidimensionality of business objectives: Does the company have multiple objectives, or is profit the sole objective? What logic prevails?
- The reason for being a company: What is the purpose of the company? Why and for whom does it exist?
- Power relations: Who holds power to maintain the status quo? How do they attain and maintain the power? How do they persuade others to maintain their perspectives?

For Springett (2010, p. 80), "a critical perspective does not accept things at face value. Taken-for-granted beliefs are to be challenged: they are contingent, have been constructed and can change. Questions are asked about who 'constructed' things, how they are made, and why." Based on this idea, it is essential to differentiate the concept of the professional in sustainability from the reflexive professional in sustainability. The latter refers to that individual who will not only solve problems (problem solving oriented), but who will also question the problem (problem-posing oriented). Figure 1 discusses the nature of such professionals.

Sustainability Professional	Reflexive Sustainability Professional
➢ **Sustainability is based on the following aspects (Springett, 2010, p. 83):** • Functional, mainstream positions; • Sustainable 'growth'; • Triple Bottom line; • Eco-efficiency: political sustainability – business as usual and symbolic politics. ➢ **Sustainability is seen by this professional as:** • An expense; • A legal requirement; • A moral obligation; • A way to maintain company's image as a responsible organization. ➢ **This professional usually:** • Is concerned about how sustainability can be a way to increase the value of the company; • Is responsible to prepare sustainability reports; • Only reproduces the capitalist paradigm of production and consumption.	➢ **Sustainability is based on the following aspects (Springett, 2010, p. 83):** • Political, progressive positions; • Sustainable development; • The discourse of sustainable development and democracy/inclusivity; • Social and environment justice; • Political change. ➢ **Sustainability is seen by this professional as:** • A new way to comprehend business organizations- companies have new roles in the society ➢ **This professional usually:** • Questions the mainstream position of the management • Reflects upon the problem of the raison d'être of companies, not limiting themselves to problematizing some of their practices; • Review assumptions that reproduce an unsustainable management; • Creates new meanings for the management practices; • Reflects critically about their own worldview.
Problem-Solving (Dewey, 1933) **Reflection on content and process (Mezirow, 1991)**	**Problem-Posing** **Reflection on premises (Mezirow, 1991)**

Source: prepared by authors

Figure 1. The sustainability professional: non-reflexive and reflexive.

According to Springett (2010), management departments should design courses to help students become aware of business activities, governments, and institutions that have been harmful to the environment and people. Sustainability, in management and business organizations, should be examined through critical lenses, with the purpose of questioning the different discourses and relationships established between the company and its stakeholders. For Springett (2003), without the examination between discourses and business actions, there is a risk of continuing to reproduce an unsustainable model and reinforce the logic of weak sustainability, which seeks to maintain a functional position that is at the service of sustainable growth, not development. Management education should create paths to move to another logic, strong sustainability, which is political and progressive, aiming at development as a democratic force (Springett, 2003). The concept of strong sustainable development emerges from nature's treatment of social equity and eco-justice. It is less instrumental and more participatory, aiming to contribute to "quality of life," which presupposes a change in the dominant social paradigm.

It is important to clarify that this discussion neither minimizes nor disregards the importance of the instrumental, technological, and philanthropic actions from the companies in the teaching-learning process of sustainability. The consideration of more technical and pragmatic issues of order are necessary, emphasizing that education for sustainability should not be reductive (Springett, 2010). To give an example, when analyzing experiences of management professors that included sustainability in their disciplines, Brunnquell, Brunstein, and Jaime (2015, p.339) identify experiences that demonstrate approximations with the principles of CR and TL. This applies to those professors who:

- Indicated the intention to surpass traditional views of the subject, replacing them with others;
- Rendered administrators responsible for their decisions and led them to consider indicators that surpass economic and financial analysis;
- Added discussions on ethics, transparency, communication with stakeholders, and social justice to the traditional objectives of their subjects;
- Placed the evolution of the administration science within a historical perspective, based on the good and the bad of what it has provided for society, discussing its implications for contemporary management;
- Demonstrated a concern towards reviewing the role of administrators and the practice of management itself;
- Placed students in a position to confront a management model that indicated signs of exhaustion and invited them to think about the need for a new model, one that would take into consideration elements which until recently had not been part of the administrative function.

The assumptions of critical reflection and transformative learning can contribute to the development of reflexive professionals in sustainability in the area of management (See Figure 2). This, in turn, can reinforce and impel the formation of a generation of management professionals that is more committed to the common good, and less focused on eminently individualistic interests.

Assumptions of Critical Reflection and Transformative Learning:	Contributions to the Formation of Reflexive Professionals in Sustainability:
- Encouraging students to break with existing standards and beliefs; - Presupposing a revision of students' assumptions, prejudices, and a questioning of our reason and practice; - Requiring a change in the way students interpret the world, searching for new meanings, new understandings, and new ways of living.	- Overcoming the traditional management model, constructing new meanings for management practices; - Educating the professionals to perceive the contradictions (in practice and discourse) in which organizational actions are immersed, as well as observing and comparing different conducts of companies; - Putting sustainability as an essential value for the professional;

• Requiring engagement in collaborative and systemic actions; • Demanding a reflection on the students' ideas and beliefs, and the questioning of ways of seeing, of existing perspectives, of arguments and propositions, of common sense and dominant assumptions; • Involving criticism of the assumptions upon which our beliefs are built and foster changes in the pattern of referrals of individuals; • Implying an evaluation of what is being reflected, looking for similarities and differences between what is being experienced at a given time and previous learning; • Demanding a positive, productive, and active relationship between teachers and students, based on interaction and dialogue; • Developing students' essential skills, sensitivities, and understandings to become critical and active reflexive individuals.	• Emancipating the individual, enhancing their role as change agent for sustainability; • Rethinking the role of organizations in society. Provoking deeper discussions of decision-making processes within management models utilizing practices that minimize sustainability-related problems; • Discussing the social role of companies and their business models, proposing new business models; • Educate skilled professionals in establishing relationships with peers from other areas of the organization, seeking to find solutions for sustainability problems; • Overcoming teaching in sustainability anchored in a technical, instrumental perspective only; • Working on the causes and consequences of unsustainability, enabling practitioners to understand and act on the political forces that nurture or impede the advancement of sustainability; • Helping professionals to position themselves politically, but, at the same time, to be able to produce sustainable projects; • Breaking with the students' apathy and helping students understand the organization not only as an economic force, but also a political one; and to develop its capacity for influence.

Source: prepared by the authors

Figure 2. Synthesis of the Assumptions of Critical Reflection and Transformative Learning and its contributions.

Developing reflexive professionals able to question critically sustainability-related issues is a growing global imperative, especially in urban environments. According to the United Nation population projections, approximately 4.9 billion people will be living in cites by 2030 (UNDESA, 2006); with this increase in the number of people in cities, reflexive professionals advocating sustainability will be more important than ever to overcome sustainability challenges, launch innovations, and uncover opportunities. As stated by Allen, Gerwing and McBride (2009), there are compelling reasons for universities serving metropolitan areas to mobilize their research and educational programs around sustainability challenges and to engage in sustainability-related partnerships relevant to their respective communities.

In metropolitan environments, where most businesses operate on the standard model of enhancing shareholder value as the prime objective, CR- and TL-centered business school instructional practices can be a lever for helping move the metro area to more generalized standards and principles of serving the social good and the environment as a necessary part of reaching the bottom line.

Conclusion

The objective of this article was to discuss how critical reflection (CR) and transformative learning (TL) could contribute to the development of reflective professionals in sustainability within management education.

To answer this question, it is imperative that sustainability education requires a paradigm shift (Bevan, 2014; Springett, 2005, 2010) that is necessary in order to construct another rationality in the business world. This rationality demands a revision of standards that, until recently, were considered acceptable and with which people are familiar, such as unsustainable production and consumption modes and prioritization of economic objectives.

Responses that are merely technological or pragmatic are insufficient for the imposed challenge. Such responses are important, but they respond to specific and objective problems, usually those that stem from law or social pressure threatening the survival of businesses. In short, this kind of response from businesses and corporations does not contribute to moving towards more substantive changes.

If there are not more critical looks at sustainability in organizations, there will be no change in beliefs, assumptions, conceptions, and values, and the corporative behavior will continue to reproduce only an unsustainable model of organization, in search of solutions to problem-solving, without questioning the problem itself (problem-posing). In this sense, the assumptions of CR and TL are necessary considerations in sustainability education, because they will help management professionals think about why problems exist: How do organizations contribute to the standards of the unsustainable life? What does it mean to be a sustainable company? What kind of business is acceptable in a society that is socially and environmentally just? What should business be? (Springett, 2005), and so on.

This task is neither simple nor lacking in mistrust and paradoxes. The strength of the idea of sustainability seems incredible to many, and much disbelief exists that it is possible to operate in a more sustainable way, pursuing other objectives besides maximizing profit for shareholders.

Therefore, to materialize this change, it is fundamental to foster a deeper, substantive thinking in students in management education courses, asking them to face disorienting dilemmas and question their assumptions. This practice will allow the future professionals to become reflexive about the theme, and to see sustainability in business through other lenses while thinking about new management possibilities.

Ultimately, the contribution that universities serving metropolitan areas can make to the quality of life in their community rests largely on developing graduates, who as a matter of course, act

on the realizations about sustainability they learned as a result of critical reflection and transformative learning in their management courses.

The theoretical examination presented in this paper may contribute to future empirical studies in the form of action research, collaborative research, or other pedagogical/andragogical scholarship of both theory and practice. The main objective of such research should be to foster the development of teaching/learning strategies capable of promoting CR and TL for sustainability management education.

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Metamorphosis Inside and Out: Transformative Learning at Portland State University

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Abstract

In this article, the authors (a faculty member and two former students) describe the trajectory that Portland State University has taken over its history to institutionalize transformative learning opportunities within its comprehensive general education program, University Studies. Following a description of the institutional changes that resulted in the community-based, experientially focused courses at the heart of University Studies, the authors explore one particular community partnership involving both a state agency and the national Inside-Out Prison Exchange Program, dedicated to offering transformative experiences in which incarcerated and non-incarcerated students learn together inside correctional facilities. Finally, each author shares a reflective essay about the personal transformation experienced through these Inside-Out courses and the implications of these changes on their lives.

Keywords: community-based learning; community engagement; general education; prison education; service learning

Introduction

Portland State University (PSU), with its motto "Let Knowledge Serve the City," has built a reputation over the past two decades as a national leader in community-based and service learning. This mission dates from PSU's founding in 1946 as the Vanport Extension Center to serve GIs returning from World War II in an area built to house shipyard workers in wartime (Portland State University 2018). It developed further under the 1990-1997 presidency of Judith Ramaley, who understood the responsibility of the urban access university to be of a "distinctive institutional type… characterized by the nature and extent of its responsiveness to the research and educational needs of complex metropolitan regions" (Ramaley 1996, 139). It would be a place where faculty, students, and community partners would collaborate both to provide unparalleled learning opportunities for students while also offering "a vehicle for the university to respond more effectively to societal demands" (Ramaley 1996, 140).

Among the institutional transformations that resulted from Ramaley's presidency, and a key driver of continuing institutional and cultural change at PSU and the recognition that has resulted from it, has been University Studies, the comprehensive general education program. PSU implemented this program in 1994, after a collaborative redesign process led by a group of faculty studying best practices in general education, as charged by the University's administrative leadership. This faculty working group consulted the work of Alexander Astin (1992, 1993) on the importance of student and faculty contact, peer-to-peer learning, active learning, and community-based learning for students' success, along with the then-current literature on student access to, and retention in, higher education. Further, members of the committee met with Portland-area employers in the public and private sectors to understand

more deeply the fundamental skills and capacities they expected PSU graduates to bring into their workplaces. These employers regularly noted that graduates had developed significant bases of knowledge in particular subject areas, but that they were also lacking in their capacities to function effectively in interpersonal and team contexts across disciplinary lines (White 1994).

Following its year of study, the faculty working group proposed a four-year general education program centered on inquiry, interdisciplinary teaching and learning, application of theory in practice, and the development of the habits of lifelong learning. Components of this model include Freshman Inquiry, a first-year theme-based course in which 36 students build a learning community over the course of the academic year while also engaging in 12-person sections of mentored inquiry led by an upper-division peer mentor. Sophomore Inquiry consists of single-term inquiry-based courses centering on knowledge domains. Students then choose to specialize in discipline-specific courses in the Junior Cluster that follows one of their Sophomore Inquiry courses. Finally, the Senior Capstone, a 6-credit service-learning course, involves students in interdisciplinary teams working on a project in reciprocal relationship with a partnering community organization. In fall term of 1993, the PSU Faculty Senate voted to adopt this University Studies program. In 1994, multi-disciplinary teams of PSU faculty taught the first Freshman Inquiry themed first-year courses (University Studies 1998). By 1995, the first Capstone senior-level service-learning courses got underway. More than twenty years later, University Studies continues to evolve and adapt to meet the needs of PSU's increasingly diverse student body (Kerrigan, 2016).

University Studies and the Inside-Out Prison Exchange Program

Since its inception, University Studies has invested in the development of mutually beneficial community partnerships. It has recruited and empowered its faculty to design courses that create the possibility for transformation on the personal, the interpersonal, and the community level. Among these partnerships has been a connection with both the Inside-Out Prison Exchange Program and the Oregon Department of Corrections, in whose correctional facilities University Studies offers junior- and senior-level University Studies courses grounded in the Inside-Out model.

Founded at Temple University in 1997, the now-nationwide Inside-Out Prison Exchange program situates college-level courses within correctional facilities to allow incarcerated and non-incarcerated students to learn from and with each other through dialogue, perspective-sharing, and collaborative project work. As the Inside-Out website asserts,

> Higher education and corrections are among the most powerful institutions in the world today...Individuals in both systems can often feel alienated, objectified, and pessimistic about the possibility of social change...The Inside-Out Prison Exchange Program recognizes the social isolation that systems of correction and higher education can produce...Inside-Out is a form of education that enables incarcerated and non-incarcerated people to encounter one another as human beings. Dialogue across social barriers is transformative and allows problems to be approached in new and different ways. The emphasis on collaborative learning invites people on both sides of prison walls

to take leadership in addressing crime, justice, and other issues of social concern. (The Inside-Out Center, 2018)

Inside-Out courses operate inside correctional facilities, with an equivalent number of incarcerated ("inside") students and non-incarcerated ("outside") students. For both inside and outside students, there is a boundary crossing at the heart of the endeavor, an encounter with "the other" that occurs on multiple levels. Class sessions involve a high degree of interaction, with dialogue and discussion happening at the levels of both large and small groups, and are marked with a palpable internal dynamism that results from such engagement.

Drawn to the vision of the Inside-Out program, PSU Community Research and Partnerships Director, Amy Spring, participated in the weeklong Inside-Out training required for all instructors working with the model in the early 2000s. Following this training in Philadelphia, Ms. Spring returned to Oregon and began developing a partnership with the Oregon Department of Corrections (DOC). Over the course of several years of work, invested in strengthening ties between Oregon educational institutions (including the University of Oregon, Oregon State University, Lewis and Clark College, and Clackamas Community College) and the DOC, Ms. Spring and her colleagues at PSU and beyond began offering Inside-Out courses at a number of adult and juvenile correctional facilities in Oregon.

Ms. Spring designed and taught the first Inside-Out offering at PSU, Capstone course in 2006, and continuing at present. Called "The Inside-Out Capstone," the course focuses on leadership and civic engagement and grounds itself on the fundamental Inside-Out methodology, a set of processes that prioritize dialogue, collaboration, and other learner-centered strategies. Additional Inside-Out Capstone courses followed (including "Metamorphosis," discussed below), taught by additional PSU instructors trained in the Inside-Out methodology. Courses offered by the departments of Criminology and Criminal Justice, English, and Women, Gender, and Sexuality Studies followed. Of these departmental courses, several, including "Writing as Activism," discussed below, also fulfill the general education Junior Cluster requirement.

The Transformative Power of Inside-Out

In the following sections, the authors introduce you to two Inside-Out courses offered for general education credit at PSU: "Writing as Activism: An Inside-Out Course," a departmental offering in Women, Gender, and Sexualities studies that fulfills a University Studies cluster requirement, and "Metamorphosis: Creating Positive Futures–Inside-Out at McLaren Youth Correctional Facility," a senior Capstone service-learning course. In the junior-level "Writing as Activism" course, participants work intensively to develop their writing, individually and in connection with others, reading a variety of texts from a diverse range of authors, generating new writing in co-facilitated weekly writing workshops, serving as writing coaches with each other, and working collaboratively on a final project. The learning objectives for "Writing as Activism" include the following:

- Create and maintain a collaborative and mutually beneficial environment, and reflect on our successes and failures as a collaborative learning community;

- Practice claiming—our educations, our choices, our voices, our words, our lives—both in and out of our classroom;
- Explore the places in which the solitary act of taking words out of our heads and putting them on the page intersect with the public act of using language to communicate with others;
- Recognize how each of us might choose to engage in activist practice through the mechanism of writing, as a tool for amplifying our individual voices, and for making social change in our spheres of influence and beyond;
- Act—through engaging as authors of our own work, as supporters of others' writing, and as collaborators with each other on a community-based, writing-involved project.

The course description for "Metamorphosis" similarly addresses the changes that students will explore in and through the course:

> How do I transform my own life? How do I transform my community and the world? This course provides an opportunity for a small group of students from PSU and a small group of students incarcerated at MacLaren Youth Correctional Facility (MYCF) to work together in a structured peer and collaborative learning environment to address these questions. Each week, 12 PSU students and 12 incarcerated young men will meet at MYCF...Students (both outside PSU and inside students) will examine their own perceptions about personal and social transformation, and examine and develop their perceptions of themselves as agents of change. Together we will study historical and contemporary examples that will help us understand personal transformation and social change. Participants will have the opportunity to gain a deeper understanding of a variety of social justice issues through readings, film and discussion. Additionally, as a whole group, students will decide upon and complete a community-based learning project, addressing a social justice issue agreed upon by the participants. All students (inside and outside) will have equal ownership of and participation in the project, and will thus contribute to the positive transformation of themselves, their community and the world. (University Studies, 2018)

In the following section, a sample the student authors reflects on the transformative nature of their encounters through their Inside-Out experiences and the implications of the change they experienced in their lives going forward.

The Transformation, Reflected

"'Your One Wild and Precious Life'": Katherine Elaine Draper Beard, outside student, "Writing as Activism: An Inside-Out Course," and teaching assistant, "Inside Out Prison Exchange: Grant Writing for Civic Leadership"

I wasn't expecting to see them there, nestled in the grass. Impervious to the twenty-foot fence crowned with razor wire, their tiny noses twitched as they scrutinized us. "Wild baby bunnies!" a hushed voice exclaimed. I straggled behind the group as we moved toward the guard tower, unable to drag my eyes away from their small, still forms, seemingly so out of place. I felt

equally alien inside the stark prison, too brightly colored against the gray, blue, and white. Once inside, we found the muted beige classroom and paraded awkwardly into the circle of chairs. The collective trepidation eased as we introduced ourselves. My sense of anxious apartness melted away as together we read aloud Mary Oliver's (1990) *The Summer's Day*:

> Who made the world?
> Who made the swan, and the black bear?
> Who made the grasshopper?
> This grasshopper, I mean--
> the one who has flung herself out of the grass,
> the one who is eating sugar out of my hand,
> who is moving her jaws back and forth instead of up and down-
> who is gazing around with her enormous and complicated eyes.
> Now she lifts her pale forearms and thoroughly washes her face.
> Now she snaps her wings open, and floats away.
> I don't know exactly what a prayer is.
> I do know how to pay attention, how to fall down
> into the grass, how to kneel down in the grass,
> how to be idle and blessed, how to stroll through the fields,
> which is what I have been doing all day.
> Tell me, what else should I have done?
> Doesn't everything die at last, and too soon?
> Tell me, what is it you plan to do
> with your one wild and precious life? (Oliver, 1990, p. 60)

I settled into the routine, eagerly awaiting this class and lamenting how quickly the hours passed. My classes on the Portland State campus began to feel monotonous, and I commenced a critical survey of disparities between them. It was not the lack of windows, or the security measures, or more industrious students; it was a sense of community and camaraderie, a shared consciousness of the value of our time together, and the weight of it.

In his book *Pedagogy of the Oppressed*, a cardinal text of critical pedagogy, Paulo Freire writes; "Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other" (Freire, 2000, p. 72). Traditional pedagogic indoctrination taught me to memorize and regurgitate, rarely to absorb and apply, engendering minimal curiosity. But each week passing through the sinister prison gates, stepping onto soil distinctly no longer the land of the free, I rediscovered the significance of education pursued for its own sake, not merely in pursuit of degrees and accolades. In ten short weeks we as a class examined what we knew about crime, justice, rehabilitation, and recidivism and took accountability for our erroneous ideas. We sought the political in each of our personal stories, and endeavored to put our experience into words. Cautiously, we shared our writings, and we laughed together. Judgment and prejudice receded as compassion and understanding grew. Independently and together, we revised our ideas.

There is no answer key or solutions manual for the acquisition of knowledge. Questioning systems of domination, scouring our oppression-rooted beliefs and practices for inconsistencies

and inaccuracies isn't easy. However, liberation from domination requires us to have sovereignty over our own thinking, to become introspective thinkers who can systematically scrutinize our culture and passionately strive towards personal and political progress. It is the essential and extraordinary power of transformative education to unshackle us--inmates, students, and professors--to enable us to be independent scholars, and to honestly ask ourselves "what is it you plan to do / with your one wild and precious life?" (Oliver, 1990, p. 60)

"Resistance and Healing": Noah Schultz, inside student, [Metamorphosis]

My fingers scratched anxiously at the loose tape holding my notebook together. I had waited months for this class to start. The radio on the staff's hip shouts out words dressed in static. Every ear in the room perks up waiting for notification of the students entering the facility. One of the guys watching out the rusty window yells out "I see them, they're coming." Half the class peeks out the glass to catch a glimpse of our new classmates. Like shy kids, everyone scrambles to their seats before they can get caught looking.

It felt kind of funny sitting in a college class. My earliest memories of school were scars. I had seen these institutions as oppressive environments that had stripped me of my sense of self-worth. I had hated school. I hated the way it made me feel. I knew I wasn't alone in feeling this. There were a lot of other guys who had been wounded in similar ways. Despite that we sat in a circle of chairs in a musty classroom. Each one of us had a reason for what had brought us to the facility. Each one of us had a reason of what had brought us to this classroom on this day.

I had grown to see education as a way out. Not so much school, but education. My curiosity was a ravenous dog hungry for anything and everything. When I heard about this class I rushed to get my name on the list. Everyone wanted to be a part of it, but the seating was limited. I was in need of credits for the completion of my degree. In our facility online education was available for high school graduates who qualified for financial aid, or who had families who could pay for it. Having a family who was able to pay for college was a rarity.

I cannot speak for everyone else, but I knew why my two close friends and I were in this class. We had learned how to transcend the confines of oppressive environments through dissecting the structures that had been put in place. Learning was the most potent form of resistance we had access to. We quickly came to find that what we had signed up for was much more than a few credits towards our degrees.

The name of this class was "Metamorphosis," which is defined as an abrupt change or transformation. Our professor, Deb Arthur, came armed with readings that challenged modern methodologies surrounding school systems, the ways in which we interact with our environment, and the corruption that leaches from the faulty structures built to further the marginalization of people who had little to say in the decision-making processes. The goal of this class was to encourage us to become active change agents in our community.

Each week we delved deeper into the material. It was the common cause that united a group of students from all different walks of life. As different as we may have been, we connected on many of the same things, from worldviews to favorite sports teams. Many of us guys on the

inside have been separated from our communities for years. We had entered the system as teenagers and now sat as young adults. I was always curious as to how we measured up against the students on the outside. I wondered about the ways in which we were different as well as similar. I craved outside influence. I wanted so badly to feel connected to my peer group outside of the fences and walls that surrounded me.

As the weeks went on the title of "inside" and "outside" student began to blur. It didn't matter that we were incarcerated, what mattered was what we brought to class each week: a smile, a positive attitude, and a willingness to grind through the assignments and readings together. Up to this point my classes had been taken solely online. The element of human connection was absent. Never had I been in a class that pulsed with synergy.

Towards the end of our class we were given the task of coming up with a community project. We decided to plant fruit trees within the facility—a way to restore life to our environment and give back to our landscape. Planting these trees was symbolic. It was a symbol of the growth we all had experienced together, but most importantly it was a symbol of the healing many of us received in a community of acceptance and compassion.

"Company": Vicki Reitenauer, instructor, "Writing as Activism: An Inside-Out Course"

The bedside clock reads 2:42. I am wide-awake, eyelids like cartoon blinds rolling up, revealing the numbers on the digital display. Before this moment I had been in what felt like a deep sleep, though my dreams were filled with prison: With the sounds of the double gate clanging open, clanging shut, clanging open, clanging shut. With the sinking feeling of being contained inside ironclad doors. With the anxiety of trying to understand what the officer in the control room is asking of me and to respond in the correct way. With the pressure of the gaze of my students from the university as I lead our way through these halls. With the pressure of the gaze of my students from inside this facility on those of us who have infiltrated their world. With the pressure of the gaze of the other incarcerated men who watch us stroll to the classroom, who look through the windows at us as they slowly pass by on their way to wherever they're going, who watch us stroll back out and away.

Here in my bed, my brain jabbers. My heart breaks.

It is somehow true that it has been all surprise and no surprise for me in entering and exiting this prison over the weeks of this course. I suspected I'd connect with the guys who are incarcerated here, believed I'd have no trouble seeing them as multi-dimensional, fully human, funny, brilliant, pregnant with possibility, profoundly and fundamentally more than whatever offenses they may have committed. That I might appreciate the fact that, had the circumstances of my life been different, I could easily be the one behind the bars. That perhaps I still could be. That, like so many of us on the outside, I have offended and, through the combination of privilege and luck, escaped being caught—and that escape means I sleep, or not, in my own bed every night.

In the future, a inside student will write me a thank-you letter in which he will wonder whether, as a teacher, I had it all under control or whether I had no idea what I was doing and just somehow brought everybody along with me on that wave. Next to his handwriting I will

handwrite *yes.* What else is there to do but hold a space for the possibility of encountering each other tenderly, respectfully, and gratefully? What else is there to do but imagine that we might understand something about caring for each other and ourselves through our encounter, something about compassion, something about power and its right uses? About the ways we are different, and also about the ways we see ourselves in each other, the ways we know ourselves *through* each other, despite and because of these differences?

Because we choose to, we create together a circle in which we all can be contained and to which we all might belong. Because we choose to, we find a way to put our words to paper and then a way to speak those words out into the collective air.

When the outside students and I exit the circle every Monday and Wednesday night, the prison is brightly, eerily lit. I imagine it to be always so, day and night, to never quite approach the darkness that settles around me in the middle of my own night. Lying here, I imagine I have carried some of that electricity home with me, and that's why I'm so entirely awake, so caught up in feeling myself back in Classroom Four. In the circle inside the classroom.

I wonder who from the class might be up right now too, inside the prison and outside it. Their brains jabbering, their hearts breaking. I imagine us in our en-widened circle, keeping each other company.

Conclusion

The authors have sought to share the transformative power of encounter across multiple manifestations of difference and the larger institutional contexts in which these encounters occurred. They hope to have conveyed a sense of how PSU and University Studies has invested in curricular innovation and community partnership that results in change for individuals, for groups, and for the communities in which we are all situated. The work at PSU continues, both to sustainably fund Inside-Out courses (as they are perceived to involve some funding loss for the University, given the reduced tuition charged to those inside students seeking course credit and the absence of tuition dollars entirely in the cases of those inside students not earning credit) and to institutionalize mechanisms to increase access to a college degree for formerly incarcerated persons. We the students and faculty at PSU, who are moved and changed by transformative educational experiences such as these, are indebted to those visionary administrators at all levels of the University, whose efforts operationalize the processes by which these experiences may continue, grow, and flourish, in the interest of transforming ourselves and our world.

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The Role of the Teaching and Learning Center in Promoting Transformative Learning at a Metropolitan University

Judith Ableser and Christina Moore

Abstract

With many potential community partners and a diverse student population, the metropolitan university has many opportunities to operationalize transformative learning, which involves a dramatic shift in one's assumptions that has a lasting change on their perspectives. The challenge of identifying transformative learning initiatives and making these initiatives take hold across a campus requires administrative direction and faculty buy-in. A teaching and learning center (TLC) can guide and sustain such transformation by providing the pedagogical expertise to identify and evaluate transformative learning initiatives, offering a collaborative forum for implementing these initiatives, and serving as an embedded structure to protect initiatives over time. The literature on organizational change in higher education and transformative learning has not yet explored the role TLCs can have in these areas. This article offers a narrative of how a TLC promoted transformative learning through two initiatives: creating a Universal Design for Learning (UDL) initiative to had better include diverse learners, and increasing community engagement through collaborative interactions with the university's new Experiential Learning Center. This manuscript offers guidelines on leading, directly and collaboratively, such initiatives in a sustainable way, to assist other TLCs in meeting similar goals at their own metropolitan institutions.

Keywords: collaborative leadership; universal design for learning; community engagement; experiential learning; strategic planning; organizational change; change initiative

Introduction

Transformative learning involves a structural change, or paradigm shift, in the way students see themselves, and in their relationship to others, that involves disorienting dilemmas, critical reflection, rational dialogue, and action (Mezirow, 2000, 1991; Cranton, 2006; Cranton & King, 2003). While transformative learning often focuses on the individual, it can also refer to the change process within a group such as a university that operate under "structures of assumptions" that shape their identities (Mezirow, 1997) and their "relationships to others, the community, and the environment" (University of Central Oklahoma, 2016). With potential community partners and a diverse student population, the metropolitan university often has opportunities to operationalize transformative learning, including high impact practices, embodied learning and other strategies toward improving student learning**.** This article explains how one teaching and learning center has both helped transformative learning practices take root at a metropolitan university and helped the university undergo a transformation.

The metropolitan university embraces the opportunities and challenges of serving its local communities, both by offering education to the city's local population and by bringing the

benefits of that education into the surrounding community (Laur, 2014). These missions make the metropolitan university a hub for diverse perspectives and community engagement, two opportunities for transformative learning experiences for students. Cultivating these two opportunities into transformative learning experiences requires institutional change, which must involve senior administration as well as representatives from across the campus. With frequent changes in senior administration and other institutional changes along the way, a mid-level center on campus can sustain university change initiatives (Kezar & Eckel, 2002) and "assess the pulse of a campus" to be the driving force behind these initiatives (Andersen, 2008, p. 41). A teaching and learning center (TLC) can guide and sustain such transformation: it provides the pedagogical expertise to identify and evaluate transformative learning initiatives; it offers a natural collaborative forum for organizing and implementing these initiatives; and it serves as an embedded structure to protect initiatives despite turnover in senior administration. This article offers a description of how our TLC, located at a metropolitan university in Metro Detroit area, promotes transformative learning through two initiatives: creating a Universal Design for Learning (UDL) initiative to better include diverse learners and increasing community engagement through collaborative interactions with our university's new Experiential Learning Center. Guidelines and recommendations, outlined here, for how to lead such initiatives in a realistic and sustainable way will assist other TLCs to meet similar goals at their own metropolitan institutions.

First, the TLC must carefully assess the mission, culture, and resources of the university at large and create their own strategic plan accordingly. The strategic plan helps the TLC identify how it can promote transformative learning implicitly, through initiatives that create learning environments conducive to transformative learning, and explicitly, through initiatives that support proven modes of transformative learning. In this process, the TLC can identify ways to support transformative learning initiatives in two types of leadership roles: 1) a directive leader, who initiates and provides the primary resources for implementing an initiative, and 2) a collaborative leader, who identifies existing leaders and resources beyond the TLC and brings them together to streamline a collective effort. Our TLC's leaders are taking a directive leadership role in promoting a Universal Design for Learning (UDL) initiative. Universal Design for Learning implicitly promotes transformative learning by removing barriers to diverse learners and, therefore, improving opportunities for diverse perspectives to contribute ideas that challenge the norm. In addition, our TLC has taken a collaborative leadership role in our university's Community Engagement initiative, a more explicit mode for transformative learning.

Background of Oakland University

Oakland University itself has transformed into a more metropolitan, diverse, and community engaged institution. This Midwestern doctoral research institution began in 1957 as a land-grant satellite campus of Michigan State University - Oakland (MSUO). It became a standalone institution called Oakland University (OU) in 1963. Originally, the campus was a small, rural community with a student enrollment of approximately 1,500 (Oakland University, 2016). More than 50 years later, OU has grown to a student enrollment of just over 20,000 students (Oakland University, 2016). Its population of diverse students has also increased, but this diversity has seen more increase in its Asian and international populations and is still a predominantly white institution (76%). Table 1, which compares OU's Black and Hispanic population with Detroit

and Pontiac, shows that while these two neighboring cities are comprised of Black residents (52% in Pontiac and 82% in Detroit), only 9% of OU students identify as Black or African American.

Table 1. Demographics at OU Compared to Pontiac and Detroit

	Oakland University		**Pontiac**	**Detroit**
Race/Ethnicity	**2016**	**2010**	**2010**	**2010**
White	76.1%	81.2%	34.4%	10.6%
Black, or African American	8.8%	9.3%	52.1%	82.7%
Hispanic, or Latino	3.3%	2.3%	16.5%	6.8%

OU data collected from OU's Office of Institutional Research. Pontiac and Detroit data collected from the U.S. Census.

This small campus nestled in the countryside found itself surrounded by geographic and demographic change. While the auto industry that made Oakland University possible still thrives in the surrounding area, neighboring cities Detroit and Pontiac, are still recovering from industry changes. Poised to evolve in many ways, Oakland University is currently undergoing the task of deciding how it wants to transform with its surrounding area.

OU is a member of the Coalition of Urban and Metropolitan Universities (CUMU), whose members define themselves as diverse universities profoundly connected with their surrounding communities through partnerships, service, and resources (CUMUonline.org, n.d.). This is one step toward the university's mission to meet the Carnegie Community Engagement Classification, which it plans to do by better quantifying disparate community engagement already taking place on campus and adding signifiers such as CUMU membership and larger community initiatives.

Due to its location, student population growth, and increased investment in community engagement, Oakland University's recent strategic plan makes a commitment to a metropolitan focus, diverse perspectives and ideas, and community engagement for learning opportunities.

Transformative Learning at a Metropolitan University

Since transformative learning can happen in a variety of environments, it is important for metropolitan universities to identify the transformative learning practices that best fit their campus and community identity. Of the Declaration of Metropolitan Universities' six criteria for CUMU membership (Laur, 2014), our teaching and learning center (TLC) pinpointed two that are emphasized in our university's mission: enhancing student success for a diverse population and engaging with the community.

Cultivating diversity through a diverse student population and diverse learning opportunities (methods, curriculum, etc.) is essential to transformative learning experiences yet difficult to achieve fully. Higher education institutions continually struggle to take the value of diversity from talk and token cultural events to embedded change (Keating, 2007). As a primarily white institution, where underrepresented minorities make up 14 percent of the student population (Oakland University, 2016), the university is working to recruit more diverse students. But the

full benefits of diversity must be embedded in practice as well as population (Nielsen, 2016). An important way to keep institutions accountable to diversity-related transformation is "to promote basic areas of excellence such as teaching and learning" (Anderson, 2008, p. 37), meaning that true diversity must permeate what takes place in the classroom. Such a classroom must "examine one's assumptions" and create space "to engage in challenging dialogue" (Nielsen, 2016, p. 53). It is also integral to define "diversity" in the broadest terms possible—race, sexual orientation, ethnicity, disability, among many others. As the authors will discuss in depth, Universal Design for Learning principles reduce barriers to learning differences and life needs that come with diverse students. Reducing such barriers frees students to engage in the difficult dialogues and dilemmas that is so integral for transformative learning.

While diversity-centered transformative learning focuses on what happens on the campus, community engagement reaches beyond the campus boundaries. As the most defining value of metropolitan universities (CUMU, 2016), community engagement is also a prominent part of our university's strategic plan—one of its three main goals. The university is currently working to better measure and organize its current community engagement work, such as service learning initiatives, community partnerships, course designs, to earn the Carnegie Foundation's Community Engagement Classification, a motivator driving engagement initiatives at many universities (Votruba et al, 2011). One embedded investment in community engagement came in the form of a new full-time Experiential Learning Coordinator hired in June 2016, along with the opening of the Experiential Learning Center in November 2016. Our institution has recognized the opportunities to connect more closely with the community to provide transformative learning experiences for our students. Our TLC is collaborating with the Experiential Learning Center to offer faculty ongoing professional development and services.

The Teaching and Learning Center's Role

Now that Oakland University has committed to student body diversity and community engagement through its mission, strategic plan, and resources, the challenge ahead is to fully implement these values in a way that, as the institution's primary goal states, will "foster student success through a robust teaching and learning environment" (Oakland University, 2015). The formal, initial support of these two values is not sufficient to ensure their success, as these changes take many years to become the fabric of an institution. A metropolitan university's TLC is often the best agent to assure these initiatives continue on their path toward transforming the university (Kezar & Eckel, 2002), as its connection to faculty, staff, and senior administration helps it form productive, focused collaborations (English, 2013) and break down the silos that are often barriers to realizing change initiatives (Kezar, 2014). While TLCs have limited staff and resources, their formal structure and role on a metropolitan campus equip them to connect the university's initiatives to transformative learning practices and organize the campus community to sustain initiatives through their years of implementation.

Developing a TLC Strategic Plan

In light of our university's new mission statement and strategic plan, our TLC revisited our mission statement and created its own strategic plan to align directly with the three central goals in the university's strategic plan. Goal 1 in the strategic plan most aligned with the purpose of

our TLC: "foster student success through a robust teaching and learning environment with comprehensive student services" (Oakland University, 2015). The center staff framed the strategic plan with student success at its core, by supporting the teaching and learning environment, and by collaborating with student services. For example, the center revised the teaching grant's criteria to focus on course redesign to increase student success and created workshops and programs with student-support services. Universal Design of Learning (UDL) is a strong example of this alignment.

The center also linked the other two goals of research excellence and community engagement whenever possible. For example, research excellence tied into the scholarship of teaching and learning (SoTL), which the center supports through grants, faculty development institutes, and other programming. SoTL satisfies both teaching and research excellence, as it is the work of faculty members collecting and disseminating data regarding what takes place in their courses. The university's third goal, focusing on community engagement, advances through OU's TLC's collaborative efforts with Experiential and Service Learning.

While the process was work-intensive and tedious, a challenge in a center comprised of one full time director, an office assistant and two part-time staff, it put into order all of the ad-hoc collaborations, goals, and resources we had accumulated in the five years since the TLC's opening. The reflection facilitated through this strategic plan led us to identify which transformative learning initiatives we could lead and how we would lead. As one of the smallest structures on campus, the TLC must be selective on what type of leadership it takes in university initiatives when it is already busy with its own programs and services. Our leadership style breaks down into two categories: *directive leadership* and *collaborative leadership*. In a directive leadership role, the TLC identifies a need or opportunity for transformative learning at its university and pulls together resources to implement the change at the institutional level, including resources coming from the TLC directly. In a collaborative leadership role, the TLC promotes initiatives taking place across campus and facilitates discussion among staff better equipped to lead actions and invest resources. It is possible that many TLCs should work predominantly in collaborative leadership roles and only take on directive leadership roles when the TLC's resources can simultaneously meet the university and center needs.

Universal Design for Learning: Implicitly Promoting Transformative Learning through Diversity

Oakland University's Diversity Council seeks to promote student success and embrace inclusion and diversity. OU's TLC director, who serves on this council, explained to the council that Universal Design for Learning is a method for meeting these goals. With the endorsement of the Diversity Council, the TLC decided to take directive leadership of the Universal Design for Learning, a campus-wide initiative that not only supports but also capitalizes on learning differences in the classroom. In this way, the center implicitly promotes transformative learning by leading initiatives that improve learning for a diverse student body. Universal Design for Learning (UDL) is both a philosophical framework and set of guiding principles to increase access and reduce barriers to learning for diverse learners (CAST, 2016; Meyer, 2014; UDL Center, 2016). It gives more autonomy to students as to how they engage, demonstrate, and express what they have learned with more "flexible curricular materials" (Ouellett, 2004, p. 136).

Its origins stem from architectural design and the Americans with Disabilities Act (ADA) but has since applied to educational contexts as well. For example, ramps may have been initially designed to give increased access to individuals in wheelchairs, yet all of us who have transported a baby in a stroller, pushed a shopping cart, or pulled luggage across an intersection have benefited from universal design.

UDL guidelines involve providing learners with multiple means of engagement, representation, and expression (Meyer, 2014). Examples might include providing opportunities to engage in both class and online activities, offering both visual and text examples, and providing flexibility in demonstrating learning outcomes. Flipped classrooms are a good example of a method for giving students agency over the lecture and content-delivery experience (Smith et al., 2015). In addition, video-recording classroom sessions allows for students to review the material after class and take further notes on content covered that they could not write down in the allotted time. This supports learning for a wide-range of diverse students including international, underperforming learners, struggling writers, and students with life needs that prevented them from attending a specific session.

UDL serves the diverse student body integral to a metropolitan university's identity (CUMU, 2014) by supporting diverse learning and life needs. Higher education's diverse student population includes a wide range of abilities, challenges, and experiences (e.g. international students, English language learners, veterans, introverts, students with anxiety, long-distance commuters, working students, or parents). From a social justice perspective, UDL principles and practices move beyond specific accommodations for those with identified disabilities toward supporting the much broader diverse population of today's students who attend metropolitan universities (Nielsen, 2016). For example, students from communities confronted with poverty and other social challenges meet significant barriers when arriving at our universities. Only 37% of 12th grade students are reading at the proficient level (NAEP, 2015). UDL's inclusive practices can help support the large percentage of students who are non-proficient readers by offering guided reading with prompts and questions to focus readers' attention to the salient and central concepts and using video and multimedia to complement extensive reading. While not eliminating the need for ADA accommodations, it can reduce the barriers that often result in diverse students opting out of higher education.

Since transformative learning is associated with encountering disruptions and barriers, how does UDL promote transformative learning when UDL's main goal is to *reduce* barriers? The lies in what type of barrier a learner encounters, and what is available beyond that barrier. The learning barriers that diverse students encounter in traditional classrooms prevent access to engaging with course content. By removing these procedural barriers, UDL principles increase access for all types of learners, which increases access to the psychological barriers integral to transformative learning. Diverse students are able to focus less on remediation and more on sharing and questioning ideas. For example, by providing students the opportunity to participate in class discussions online in addition to the on-campus classroom, more students will have the opportunity to contribute ideas, pose questions, and share diverse perspectives that challenge one another's assumptions, whereas the traditional classroom discussion typically engages fewer student voices. Moreover, by giving students more agency in how they engage, represent, and express learning, UDL principles disrupt students' assumptions of how to learn and of their role

in learning. Referring back to the example of an online discussion, students may experience disruption and dilemmas when asked to demonstrate their learning in a way other than a traditional essay, or peer review a student's work in an unfamiliar genre. UDL principles ensure that all students have access to transformative learning experiences by removing barriers to diverse students and expanding perspectives of how learning can occur.

As is always a threat to change initiatives related to diversity, it is important to emphasize that Universal Design Learning is a gateway to richer, better ways of learning for all students, not just an antidote to "inferior" learning styles or "deficit and remedial provision" (Ingleby, 2011; Higbee, Bruch & Siaka, 2008). Beyond valuing tolerance and accommodation, UDL has the potential to provide "inclusionary frameworks" and "broader common ground" in the learning environment (Keating, 2007, p. 10), outcomes often lacking in diversity initiatives. Embracing diversity at an institutional level does not merely mean inviting minority students into majority cultural learning practices, but "widening participation" and "mainstreaming" diverse learning opportunities for all learners (Ingleby, 2011; Thomas, 2011). UDL is a way to show that diversity is deliberately central to courses rather than merely featured in cultural celebrations that co-exist with unchallenged ideologies (Keating, 2007; Anderson, 2008; Higbee, Bruch & Siaka, 2008). UDL implicitly promotes transformative learning by challenging the ways students can consume, demonstrate, and apply course content.

Operationalizing UDL at Our University

Because we had finished our strategic plan in Winter 2016, we could assemble a university-wide team on Universal Design for Learning with enough time to research, discuss, and reflect on the opportunities and challenges for UDL at our university. From this point, our TLC could take a directive leadership role in the UDL campus initiative through the center's programming, information resources, and collaborators.

It is a relatively easy task for a TLC to provide workshops and training materials to introduce and teach faculty how to use UDL resources and techniques. It is a much more complex task to transform an institutional culture to accept and endorse such practices based on long-held assumptions about who should attend university and who should succeed. To promote change beyond cohorts of faculty, the center organized a UDL initiative team made up of faculty and students from different schools and staff from academic and student affairs including disability support services, office of diversity and inclusion, e-learning and technology services. This team explored ways in which UDL principles could become part of the institutional and classroom culture. By including this range of perspectives and expertise, the TLC facilitated "the cross-fertilization of ideas" that "has often helped to encourage the exchange of ideas and to loosen tightly held assumptions" in higher education institutions (Kezar, 2014, p. 71). The team's goal was to study and learn more about UDL and then create a plan of how to introduce it to the campus at large. Each member of the team met with different groups and committees across campus to introduce and discuss the initiative.

The team discussed how faculty and the larger campus would receive UDL's principles. For example, some faculty might refuse to buy into recording their lectures. Underlying this issue are larger issues of faculty who view "their adopted disciplinary theories and pedagogical practices

as largely immutable," therefore finding it unnecessary to "interrogate and question their own assumptions, practices, and the corresponding or associated effects" (Nielsen, 2016, p. 52). In this same vein, some faculty fail to "challenge underlying knowledge structures or conventional teaching methods" (Keating, 2007, p. 11). Any initiative to implement transformative learning structures in the classroom will require faculty to undergo the process of transformative learning as well by resolving a disorienting dilemma through rational dialogue and critical reflection. OU's TLC set out to provide this opportunity through its programming and resources.

The team's work informed how we would organize some of our 2016-2017 programs around UDL. OU's TLC did this primarily through selecting a Faculty Fellow, a one-year post, to lead UDL initiatives such as a yearlong faculty development institute (FDI), a scholarship of teaching and learning (SoTL) grant, and a series of faculty workshops. The FDI structure brings together a cohort of faculty who want to study a teaching strategy to implement in their courses. FDIs often prepare faculty to apply for the center's SoTL grants, which provide faculty $3,000 to create or redesign courses based on their research of higher education pedagogies and disseminate the results in a university session, conference presentation, or scholarly publication. Since these SoTL grants often include a university theme, this year's grant application invited proposals focused on UDL in addition to other student success strategies. Lower-commitment opportunities to talk about UDL include faculty workshops, which are open to the whole faculty, staff, and graduate student community. Since these are the TLC's established resources and programs, these efforts did not add extra work to our responsibilities.

In any effort to transform a university's culture, the common language used to communicate an idea is key (Kezar, 2014). The phrase "universal design for learning" appeared in programming, but TLC staff also wanted to emphasize its key points: (a) the university team connected to UDL; (b) UDL's link to student success; and (c) the resources available to faculty interested in evaluating their courses using UDL principles. A vital component of this UDL Faculty Development Institute is that it establishes a cohort of faculty who become "early adopters" of the initiative and can serve as ambassadors across the campus to help transform the culture. These ambassadors were equipped with UDL "Quick Notes," a series of visual, brief guides to UDL's core ideas and strategies. The TLC disseminated these to the entire university community in university electronic communications and made available on our website on a specific UDL page. Creating a foundational guide like this is a significant piece to ensuring institutional changes take hold (Kezar, 2014), and it ensured that all team and FDI participants used the same language and emphasizing the same points when sharing their work with other campus groups.

The transformative learning impact of UDL will be perceivable in the structure of class activities and assessment in the years to come. The implementation phase is only beginning, and TLC's future work will analyze the impact and results.

Experiential Learning: Explicitly Promoting Transformative Learning through Community Engagement

While OU's TLC made strategic efforts to initiate a campus-wide discussion about UDL, community engagement was an initiative already often discussed across campus. In the example of the UDL initiative, the TLC took a directive leadership role. Since larger university

committees and sources beyond the TLC were leading community-engagement efforts, we took a collaborative leadership role with other centers and programs to promote community engagement through the lens of transformative learning.

Experiential Learning (EL) involves learning through direct experiences; learning by doing, and reflecting on those experiences (Moon, 2004). Kolb's Experiential Learning Cycle (1986) provides the foundation for EL and includes the following four phases: having concrete experiences, reflective observation, abstract conceptualization, and active experimentation. In higher education, EL can link to the curriculum through Academic Service Learning, volunteering, observational visits, capstone projects, internships and other forms of civic engagement. Academic Service Learning (ASL), a common type of EL, involves achieving targeted course learning objectives by integrating meaningful community service and instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities within credit-bearing courses (Furco, 1996; National Service Learning Clearinghouse, 2017). These community experiences provide robust opportunities for students to engage in transformative learning as they meet the challenge to see the world from a different and new perspective, which can create disorienting dilemmas requiring critical reflection, rational dialogue, and action (Mezirow, 2000, 1991).

This "experiential learning" category allows a university to better link community engagement to transformative learning theory, which research frames in the form of community-based learning (Castañeda, 2008; Roswell & Davis, 2014), service learning (Bamber & Hankin, 2011; Levkoe, Brail & Daniere, 2014), and experiential learning (Isaacs, 2016; Zull & Fried, 2012). Through these studies on transformations occurring through experiential learning, students report realizations on assumptions they never would have thought to question (Castañeda, 2008), facing their own biases of immigrant populations (Bamber & Hankin, 2011), and the satisfaction of making real that which was learned hypothetically in the classroom (Isaacs, 2016; Zull & Fried, 2012). A TLC's partnership with the university's community engagement resources better ensures faculty and staff will know how to help their students recognize and reflect on the transformative learning taking place in their classroom and communities.

In the last 10 years, pockets of our university have pioneered academic service learning initiatives, from single course projects lasting no more than a semester to partnerships with high schools and nonprofit organizations still going strong and even growing. At one point the university had an Academic Service Learning "office," staffed with a graduate assistant and part-time work from a faculty member (plus two faculty fellows), but the one-time grant funding on which this office depended did not allow it the physical and staffing resources needed to be sustainable. Years later, as the university named itself as a "preeminent metropolitan university" in its revised mission statement in 2015 and emphasized community engagement in its strategic plan, it established two large committees to determine how to bring together current community engagement efforts and built on these efforts. Currently, the president's webpage on the university's strategic plan highlights community engagement, listing several projects across campus but focusing on the OU-Pontiac Initiative, "a sustainable, mutually beneficial relationship" between the university and neighboring city of Pontiac (Oakland University, 2014). Pontiac, once a manufacturing center for the auto industry, has experienced shrinking infrastructure and poverty. OU's president has repeated "our work in Pontiac is vital to realizing

our commitment to becoming a preeminent metropolitan university." The OU-Pontiac Initiative lists two staff members dedicated specifically cultivating this initiative and 28 ongoing projects from across disciplines.

The OU-Pontiac Initiative is only one of many of other community engagement initiatives happening on campus falling under categories of service learning, internships, community education programs, and broader collaborations and partnerships. In order to accommodate disparate community engagement efforts through the lens of student learning, the university's committee on community engagement sought to put these efforts under the umbrella of "experiential learning," hire a full-time Experiential Learning Coordinator to organize and develop these efforts (accomplished Summer 2016), and establish a physical Experiential Learning Center (ELC) (accomplished Fall 2016).

Promoting Experiential Learning at Oakland University

While the university is providing the resources and leadership to make community engagement flourish, a TLC can serve to help connect faculty to these community engagement resources and pave the way for faculty and student participation. Often missing from the community-engagement movement in higher education is the embedded academic home that makes it possible "to garner resources and foster internal mobilization events that spark dialogue, critique, and identity formation," bringing together all scholars involved with service learning at some level through curriculum development, hiring practices, and professional development (Butin, 2011, p. 23). OU's TLC sought to initiate opportunities for faculty to engage in Academic Service Learning prior to the establishment of the Experiential Learning Center and now collaborates on an ongoing basis with the EL Coordinator to facilitate dialogue and provide a forum for this professional development. At some institutions, the Experiential Learning Center (ELC) is part of the Teaching and Learning Center. At Oakland, Academic Affairs decided that it should reside in the Student Success Office. The main goals of this ELC is to make connections and partnerships in the community and be able to provide opportunities for students to have community-based experiences through academic service learning, internships, volunteering, capstone projects, or other forms of civic engagement. The Coordinator can work with faculty to help them design and develop service-learning courses and support and serve as a facilitator for community connections.

Prior to the establishment of the Experiential Learning Center, our TLC offered numerous workshops, discussion groups, learning communities, and teaching grants that focus on redesigning courses using Academic Service Learning to enhance student success. Our workshops have introduced the concepts and best practices for ASL and provided a case study and example of one very successful academic service-learning course developed by a faculty member. Our discussion groups, or Coffee and Conversations, have encouraged faculty to share their experiences, highlights and challenges of implementing it in their courses. Our yearlong learning community (LC) involves a cohort of faculty who are interested in gaining knowledge and skills in integrating Service Learning in a course. Over the year, they plan and develop strategies that they can implement. They meet regularly to share their experiences and problem solve their challenges. The facilitator of this LC is actively involved in using ASL in her courses and provides guidelines and suggestions. Each year our TLC offers teaching grants for faculty to

redesign a course in order to enhance student success and engage in scholarship of teaching and learning by examining and reflecting on their own teaching practice and disseminating the results. Faculty have won numerous grants for focusing on developing, implementing and analyzing the impact of ASL.

Now that Oakland has fully implemented the ELC, there is ongoing collaboration between the TLC and the ELC to provide professional development across the campus. The ELC Coordinator will run a series of workshops each year at our TLC and provide support for faculty who are working on teaching grants that include an ASL component or other forms of EL. In addition, the coordinator sits on our TLC's Advisory Board and meets on an ongoing basis with our TLC's director to explore different opportunities and initiatives.

The challenge at this point is how to make sure our faculty know how to utilize the services available by having an ELC. In turn, the ELC's coordinator wants to better understand better the faculty's' needs and how he can work with them. Our institution's faculty operate under an assumption of taking on the full burden of experiential learning experiences, maybe with the help of their colleagues and department if experiential learning practices such as service learning, volunteering, and internships are regular practices. Since this is already a university-wide initiative, there is much to explore as to how community engagement via experiential learning will develop across schools and departments. Such widespread change happens slowly, even with increased resources on campus. As the TLC promotes community engagement, its members have to accept this slower pace of change and continue communication with the ELC and the faculty who are interested in helping facilitate transformative learning experiences through community engagement. Ongoing collaborative efforts between ELC and TLC to promote and support experiential learning resources, professional development, and other opportunities is enhancing transformative learning experiences at our institution.

Recommendations for TLCs to Promote Transformative Learning at Metropolitan Universities

"Transformative learning" often refers to learning opportunities for our students. Yet the journey that faculty, staff, and administrators must take to develop and implement transformative learning initiatives, such as UDL and Experiential Learning, is also a transformative learning opportunity. Creating a culture of UDL and Experiential Learning at a university requires a deep structural change, or paradigm shift, in the way faculty and students see themselves and their relationships with others that involves disorienting dilemmas, critical reflection, rational dialogue, and action (Mezirow, 1978; Cranton, 2006). UDL and Experiential Learning may require faculty to reconsider how they design activities, select texts, and assess learning outcomes—in short, the whole design of their teaching. The TLC can be a safe place to facilitate the dialogue and debate faculty need to undergo a transformation in how they teach.

Universal Design for Learning requires us to shed the view that only the "best and brightest" can succeed, and consider that all students have the right and potential to succeed if provided with increased access to diverse learning. Although many may support this belief, some still feel that universities should "weed" out students early who struggle, or else should not provide a range of choices and learning options.

These difficult conversations need to take place in a safe and open environment with opportunities for debate and discussion grounded in evidence-based practice and effective, simple techniques for faculty to try to reflect upon, gradually.

Community engagement and experiential learning may also challenge our way of thinking and doing. Faculty have to relinquish control over the content and instruction and embrace learning outside of a classroom and a textbook. This may also involve faculty rethinking how they spend their time; moving away from preparing lecture notes toward making community connections for their students.

Most TLCs are charged with helping faculty rethink and design their courses to improve student learning and leading and participating in transformative learning initiatives can increase a TLC's impact on student learning. Considering the circuitous, intensive process of promoting transformative learning initiatives, it can help if a TLC has a list of recommendations to plot out this process. In light of our experience leading transformative learning initiatives in a directive leadership and collaborative leadership role, we suggest the following recommendations for how to promote most effectively transformative learning at your metropolitan universities.

1. Develop a strategic plan for the TLC that aligns with the university's plan.

This serves as the definitive guide to how all of your actions should line up with your priorities. TLCs need this structure because the university often asks them to take on ad-hoc projects and duties needed by the university, which makes it easy for the TLC to be a center for doing everything without strategic direction. If you also want your TLC to effect permanent change in the university's teaching and learning culture, a strategic plan is required. Research other strategic plans online, talk with other TLCs about their strategic planning process, bring in other perspectives to help revise the plan, and have it on hand to give to senior administration.

2. Within the strategic plan, identify how the TLC can promote transformative learning both implicitly and explicitly.

What transformative learning methods best fit your institution's identity and resources? Which methods best fit your TLC's expertise, resources, and passion? These questions, along with the data in your strategic plan, can help you pinpoint the transformative learning initiatives upon which your center may want to act. Either the TLC can promote transformative learning explicitly by promoting practices specifically categorized as modes for transformative learning, or it can do so implicitly by improving conditions necessary to make these practices happen.

3. Decide whether the TLC's leadership will be in a directive or collaborative leadership role.

The collaborative leadership role should be the default role since a TLC's strengths and weaknesses best fit this role. Since most TLCs have very limited resources, the collaborative leadership role is important for achieving feasible change, identifying what other resources on campus can take the lead and providing support accordingly. Nevertheless, there are key opportunities to take the directive leadership role in a transformative learning initiative when the

TLC can align its programs and services with that initiative and when no other area on campus is equipped to take the lead.

4. Follow research-based practices for institutional transformation to ensure transformative learning initiatives will take hold.

Institutional transformation undergoes similar challenges and realizes similar rewards to those found in transformative learning theory. Transforming a university built on a slow-to-change culture is challenging, especially changes that require shifts in underlying, firmly held attitudes. These "second order changes," as Kezar (2014) called them, are so challenging that the research on successful institutional transformation at this deeper level is limited and mostly consists of "cautionary tales" (p. 62). Fortunately, the impetus for higher education institutions means there is plenty of research on institutional change initiatives. Some of these strategies repeated throughout the research include taking stock of the university's mission and goals and gathering a committee and task force with broad campus perspectives to discuss challenges and make plans accordingly. Furthermore, communicate these plans to the larger public, allow plenty of time and open forums to make everyone heard, and invite individual units on campus to interpret initiatives in ways that fit their individual expertise and identity (Bolman & Gallos, 2011; Kezar, 2014; Kezar & Eckel, 2002; Thomas & Tight, 2011). In addition to existing research on higher education change initiatives in general, seek out research about change relating to the specific initiative you have decided to pursue.

5. Move with participation from faculty, staff, and senior administration.

While senior administration can change at any point, it is important to have that powerful ally to make real change happen. The support of senior leadership is essential to institutional transformation, but the "quantum leaps" that make such transformation a reality "come from those at other levels of the organization who recognize and seek organizational change" (Andersen, 2008, p. 41). The other faculty and staff participants who are likely to stay at an institution longer are key to keeping momentum of an initiative going. Choose a variety of perspectives based on discipline and experience with innovative teaching and learning strategies. It is helpful to include perspectives of optimistic skeptics who can tap into the objections that will likely come up, along with the initiative's natural champions.

6. Make this action visible.

The committees and task forces represent many perspectives on campus. Even if committee members have dutifully communicated their work to their respective departments, it is unlikely that all faculty and staff are aware of your initiative, or understand its importance. In order to continue the dialogue in a positive direction, the committee should plan how to inform the campus of this work. When your initiative groups are ready to share its core ideas and action plan, make guiding documents to disseminate to the entire campus. This is another key strategy toward institutional change, as it circulates the languages and ideas surrounding an initiative (Kezar, 2014). These should be brief, accessible, and mindful of your audience. Post them on your TLC's website, display them in print at the TLC's physical location (if one exists), and plan how you will promote them at related events on campus. Work with your senior administrator to

plan how to deliver these guiding documents directly to each faculty and staff member through email or mailboxes. This dissemination of resources to campus community circulates the consistent language and ideas that are required to make cultural changes stick. It works best if these documents include an invitation to participate in related forums and professional development.

7.   Foster the germination of ideas through professional development.

After all the committee's and task force's work on creating plans, much work remains to help faculty and staff members figure out what these plans mean for their departments, units, and individual courses: "[M]any of the important changes that are proposed within higher education will not occur unless sensemaking or organizational learning occurs" (Kezar, 2014, p. 82). This "sensemaking" process is circuitous, ongoing, and the critical step from turning plans into reality. Since the university is made up of autonomous bodies with disparate expertise and goals, sensemaking provides the structure and support to decide what these changes look like in their corner of the campus. This applies to optimists and skeptics alike.

Following transformative learning theory, help skeptics recognize disorienting dilemmas, facilitate rational dialogue, and critically reflect accordingly by inviting the campus community to open forums or through planned programming at the TLC. When facilitating transformative learning, whether in a classroom or faculty workshop, it is important to help learners move from reacting skeptically to uncertainty to transforming that uncertainty into a focused inquiry (English, 2013, p. 92). Because the most vocal resistance often comes from those whose "cognitive schema" doesn't accurately comprehend the initiative (Kezar, 2014, p. 48), offering faculty professional development opportunities to learn about the initiative and work toward understanding improves the chances of gaining broader support. By facilitating a productive dialogue while teaching faculty about the research supporting the initiative, you increase the likelihood for acceptance, support, and implementation.

8.   Allow for time and patience, both from others and from yourself.

It is easy to feel that once your committee has thoroughly researched and discussed the initiative and the task force has determined reasonable steps forward, the hard work is in the past. In reality, getting input from the campus community, revising plans accordingly, and working with individual units to execute plans is the longest part of the process. Most higher education institutions do not allow for mandating changes down to every campus employee, and even if they do, such mandates would be impossible with the disparate roles and identities across campus. Every unit must find its own way to enact the initiative, a process the literature refers to as "sensemaking" (Kezar & Eckel, 2002; Kezar, 2014). The range of time the whole process takes can range from 3-5 years, sometimes longer, and throughout the process, there could be points where the initiative is at a standstill. While persistence is important to keep action moving, be mentally prepared for a long process. Do not let frustration paralyze your motivation, sow doubt in your work, or rush to assign blame to one person or group. Use moments of frustration to reflect on the process and determine whether delays are normal or require new action. Even if all campus members are allies to your initiative, lasting implementation will be years in the making.

9. Embrace the process of transformation as an outcome in and of itself.

Allowing for time and patience is easier when you embrace the journey of transformation itself. It is not a stagnant point in time but a recursive process in and of itself. The definition of the word "transformation" often includes the "process of changing" which suggests an ongoing, continual evolution. The awareness of the dilemmas, the critical reflection, and rational dialogue can create a rich experience for ongoing transformation that can keep us engaged and connected to the process.

10. Transformative learning is not only for students; it can enrich the professional thinking and action of all faculty and staff on campus.

Transformative learning challenges, and yet benefits not only students, but all members of a campus community. Faculty, staff and administrators can enhance their own beliefs and practice through ongoing critical reflection, rational dialogue and action, ultimately transforming the campus experience for all.

Conclusion

Transformation, by its very definition involves some kind of change. Humankind is often resistant to change, fearful of the loss of control, uncertainty, feelings of the unknown, concern of our level of competency, potential for more work, resentment and the difficulty breaking old habits. The TLC can address these concerns with evidence and research-based practice and can help faculty and staff develop practical alternatives and solution.

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Using Public Private Partnerships to Accelerate Student Success

Vicki L. Golich, Sandra Haynes, and Steve Kreidler

Abstract

Metropolitan State University of Denver (MSU Denver) has used various ways to craft curriculum that directly meets employers' and students' needs in key economic drivers in the State of Colorado. Moving beyond the standard industry advisory councils used in many, especially professional programs, the institution has consulted with industry leaders *prior* to building facilities and developing curriculum to ensure industry needs are met. As MSU Denver faculty collaborated with their industry partners, they worked to embed both content and skills throughout the curriculum to ensure alumni were prepared for this 21st Century workplace. Additionally, MSU Denver has honored past experience and on the job training of employers and employees in a way that many four-year institutions have resisted.

Keywords: workforce; curriculum; public/private partnerships

Introduction

Over 80 years ago, John Dewey (1933, p. 35) challenged the academy to think seriously about student learning versus faculty teaching: "[T]here are teachers who think they have done a good day's teaching irrespective of what pupils have learned." Ever since, the quest was on to try to understand how students learn, how teachers know what they have learned, and what instructors need them to learn. Research on pedagogy, assessment, and curriculum development now abounds.

Pedagogy

A critical transition in higher education pedagogy came with the recognition that teaching as the "sage on the stage" was less effective than facilitating learning as a "guide on the side," an idea popularized by King (1993; see also Stice, 1987). Work in the classroom shifted from a faculty-centered to a student-centered approach, with the focus on student learning rather than faculty teaching. Faculty roles and responsibilities have been evolving ever since (Fabry et. al., 1997; Harris and Bell, 1990). A key element in this transition was to move to active learning strategies designed to engage students in their own discovery of knowledge, as they are required to learn by doing (Boehrer, 1990-91; Chickering & Gamson, 1987; Ewell & Jones, 1991; McKeachie, et. a., 1986; Pascarella & Terrenzini, 1991; Umbach & Wawrzynski, 2005). Indeed, "Fifteen years of neuroscience, biology, and cognitive psychology research findings on how humans learn offer this powerful and singular conclusion: 'It is the one who does the work who does the learning'" (Doyle, 2008 quoted in Zakrajsek & Doyle, 2012, p. 7).

According to Mezirow (1991), learning does not occur without the creation of meaning. This constructivist theory called transformative learning holds that learning occurs via the learner's

interpretation and reinterpretation of their experience. Instrumental learning occurs through solving problems and completing tasks and communicative learning occurs when the student can express what they have learned as well as how it has shaped their feelings and desires (Mezirow, 1991). Transformative learning builds on the work of Carl Rogers (1969) who posited that learning is meaningless without experience. Cognitive understanding is inadequate without experience (e.g., one can understand the process of surgery in great depth while at the same time being loath to allow a surgeon without experience to operate.)

Faculty and researchers seeking to improve student learning quickly realized and systematically discovered that students benefited greatly from frequent feedback on their performance, as well as frequent faculty-student interactions (*Bridging the Gap*, 2015; Busteed, 2015; Chickering & Gamson, 1987; Ewell & Jones, 1991). Metropolitan State University of Denver (MSU Denver) faculty engage their students in working collaboratively to solve a problem, create/innovate a product, or design a strategy for real world applications. For example, Dr. Aaron Brown from Mechanical Engineering Technology and his students worked with Revision International on a community development project in the Westwood neighborhood of Denver where the average household income level is $18,000 a year. Dr. Brown and 12 students designed and built solar heaters constructed from soda cans, two-by-four lumber, plywood, and computer fans for a total cost of about $30. These units saved about $25 a month on heating bills, a huge savings for families in that income bracket. They installed five demonstration units in Westwood then held a workshop to teach the community how to build their own. Dr. Brown has been approached by the governor's office about statewide implementation and also by the U.S. Institute of Peace, part of the U.S. State Department, for international implementation. Additionally, Aviation and Aerospace students competed with universities all over the world in the Analytical Graphics Inc. (AGI) University Grant competition. Our students, under the supervision of Professor Jose Lopez, used AGI's Satellite Tool Kit for Archaeoastronomy to visualize and analyze ancient monuments' astronomical alignments. Their effort, the first time anyone has ever used STK for this purpose, won them honorable mention in this worldwide competition. This learn-by-doing approach to pedagogy has been successfully graduated students into lucrative careers in local and national high demand fields.

Assessment

The assessment of learning underwent a revolution in the 1980s and 1990s when regional accrediting agencies started to focus on learning *outcomes* (e.g., what did students learn and how does one know that) versus learning *inputs* (e.g., quality of library holdings or faculty credentials). Institutions of higher education realized that they must demonstrate students are graduating with both content knowledge and the skills needed to be successful in the workplace. Harris and Bell (1990) were among the first to call attention to the need for assessment to be "organized with the learners as the main audience for the results" (p. 94). With an emphasis on students as learners, faculty require assessment tools that will help them know when students have not fully understood key concepts or content. Then faculty can work to ensure that students are integrating, synthesizing and constructing their knowledge "in ways consistent with the discipline and the professional pathways on which they [have] embarked" (Meyers and Nulty, 2009, p. 565.)

Tom Angelo and Patricia Cross (1993), whose work relates closely to transformative learning, inspired a new and effective approach to assessment, through their development and adaptation of classroom assessment techniques. This approach helped professors "obtain useful feedback on what, how much, and how well their students are learning," as a result, faculty can refocus their teaching efforts to increase the effectiveness of student learning (Angelo & Cross, 1993, p. 3). At MSU Denver, all degree programs have some kind of culminating senior experience or capstone course—typically grounded in a "real world" experience or issue—that enables faculty to assess what students have learned, both in the disciplinary content and about how to work with others to solve problems.

Curriculum Development

As with pedagogy and assessment, curriculum development is best done intentionally, with a focus on how to engage students purposefully in their learning. A substantial body of research demonstrates that students learn best when they are introduced to a topic or concept; use that information by participating in a variety of activities; and, then, apply their learning to a real world issue related to their interests (see, e.g., Asiala, et. al., 1997; Jankowski, 2016; Meyers & Nulty, 2009; Wiggins & McTighe, 2005). The Association of American Colleges and Universities identified eight high impact practices that faculty should consider as they create curriculum. These include first-year seminars and experiences, common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, service learning/community-based learning, internships, capstone courses and projects (AAC&U, 2017; Jankowski, et., al., 2009; Kuh, 2008).

Faculty create the most relevant and engaging curriculum when they do three things: (a) Consider the endgame: (b) determine what they want their students to know and be able to do once they have completed the curriculum; and (c) scaffold the needed content, to build sequenced courses. This is so that content knowledge increases over time and integrates the intellectual and twenty-first century "soft skills" so desperately needed in the workforce throughout the curriculum.

Consider the endgame. Consult with those who know what is needful, that is, the potential employer(s). Given that curriculum is the purview of faculty, iterative conversations between faculty and industry members led by faculty are vital to the creation of a workable and sustainable curriculum for both parties. Topics of conversation need to include what students will need to know and be able to do once they graduate with a degree in this program. Then faculty can begin thinking about what kind of course sequencing makes sense (and is feasible), and when to encourage students to participate in internships or service learning activities.

Scaffold the needed content. As faculty develop curriculum, they need to pay attention to how they build content and skills knowledge on work completed in previous courses, *and* how courses prepare students for future learning (see Figure 1).
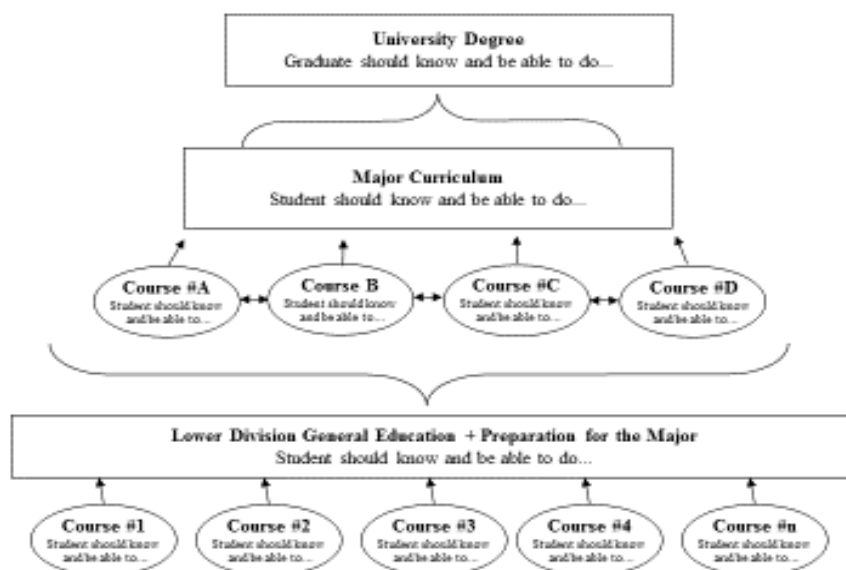
Figure 1. Learning Outcomes Hierarchy Adapted from Golich, 2000, p. 17.

Integrative learning. Once again, intentionality is critical here. Knowledge and skills "…must be developed in, and then applied across, multiple contexts – in different courses, in a variety of disciplines, using a range of modalities" (Newman et al., 2014). Faculty must work to develop instructional materials that foster the active student participation in learning "…guided by knowledge of what students know and can do, rather than by assumptions about what they should know and should be able to do" (McDermott & Shaffer, 1992, p. 1002). This is the essence of transformative learning: active problem-solving on meaningful tasks. The goal is to ensure that students understand the relevance of course content to their degree program and that they are learning those 21st century soft skills along the way in every course—and, ideally, through co- and extra-curricular activities as well.

New curriculum and program development. MSU Denver has developed systems to align new program, degree, and curriculum development to align closely with workplace demand and experiential learning (see MSU Denver Graduate Program Approval Process, 2017). Recent program growth in hospitality, brewing, aerospace, and advanced manufacturing have been developed through intensive review of expected job growth and gap analysis of supply of qualified employees in our primary service market. The use of State of Colorado documentation (Colorado Workforce Development Council, 2016).

Application of Theory

MSU Denver has used the practices described above to create curriculum that directly meets employers' and students' needs in key economic drivers in the State of Colorado and the country. Many MSU Denver academic departments use industry advisory councils to ensure their curriculum is up-to-date and to meet accreditation standards, particularly in its professional programs. To develop new curricula, faculty have worked iteratively with industry leaders – *prior* to building facilities and publishing catalog copy – to ensure industry needs are met. In each case, these conversations have confirmed the need for "T-shaped professionals" in the workforce – people who can solve increasingly complex problems in various work environments (AAC&U, 2007; Bajada & Trayler, 2013; Eisenbach et. al., 1998). Employers need to hire people who have both deep knowledge in content and discipline (the vertical part of the T) and the ability to operate effectively *across* disciplinary boundaries with critical skills such as communication, teamwork, critical thinking, problem solving, leadership, empathy, cultural awareness, creativity and innovation: the horizontal stroke of the T (What is the "T"?, 2014). As MSU Denver faculty collaborated with their industry partners, they worked to embed both content and skills throughout the curriculum, to ensure alumni were prepared for this 21st Century workplace.

Additionally, MSU Denver honors work experience and on-the-job training of employers and employees in a way that many four-year institutions do not. The institution provides credit for prior learning via a portfolio review process that grants academic credit for field courses. Military block credit transfer is allowed through the American Council on Education (ACE) Military Guide recommendations for formal courses and occupations offered by all branches of the military. Currently, MSU Denver is working to accept apprenticeship and journeyman credentials for academic credit.

Integration of Public Private Partnerships (P3's) to Enhance Student Learning Outcomes

While the use of P3's has become commonplace within higher education in relation to infrastructure and capital facilities, which have dedicated revenue streams (Bernstein, 2016), it is rare to find these partnerships used to create or advance student learning opportunities as the most important reason to create said partnership. MSU Denver has expanded the concept of P3's primarily to drive program development rather than as a revenue source or replacement, though some projects do contain the positive aspects of new facility development as an outcome. This occurs by-the university working with P3 experts in the field to deliver curriculum in an alternative format for current students and those already working in their respective fields. Below are examples of these endeavors.

Hotel and Hospitality Learning Center

A crowning jewel of the Auraria Campus and MSU Denver is the SpringHill Suites by Marriott and its accompanying Hospitality Learning Center (HLC). MSU Denver developed the facility to meet employers' needs for a well-educated workforce in the number one economic cluster in the State, hospitality. The facility is a public-private partnership, built with industry input and in conjunction with Sage Hospitality, a major hospitality development and management company

headquartered in downtown Denver. The institution's interactions with Sage and other major hospitality firms such as Stonebridge Companies, revealed the need for operations talent in the industry, from front-desk personnel to kitchen managers to general hotel managers. All agreed that experiential learning, coupled with theory, was the best way to educate this type of future employee. A once-small major has now doubled in size, and the curriculum has morphed from a single major with concentrations into four distinct majors. In this case, the curriculum needs, as described by hospitality industry partners, reframed our program and the hotel's operational net income has paid for over 30,000 square feet of new learning facilities attached to the hotel itself.

Brew Pub and Brewing Operations

Building on the success of the Hotel and HLC, Tivoli Brewing approached MSU Denver to help create a curriculum for students interested in Brew Pub and Brewing Operations, a growing market in Colorado and nationally. The owners' vision was not simply for another brewpub, but a pub that would participate in helping the industry thrive, by providing well-educated owners and staff to the brewing and pub industries. As a result, Tivoli Brewing Company now operates a full brewpub operation on campus where MSU Denver students serve as brew masters for the company. Their learning spaces are co-located with the brewpub itself, for a fully integrated experiential academic program.

Advanced Manufacturing Sciences Institute

In answer to President Barack Obama administration's call to revive the manufacturing industry in the United States, MSU Denver set out to determine what the manufacturing workforce needed. Manufacturing has changed dramatically in the past decades and the talent needed has likewise changed. Aerospace in the second leading economic driver in the State of Colorado and manufacturing is the largest sector in this industry. MSU Denver's administration identified the top aerospace manufacturers in the State and invited them to a brainstorming session prior to the development of any curriculum for an advanced manufacturing program.

These conversations revealed that a broad-based, interdisciplinary, T-shaped curriculum was necessary to meet the needs of a changing workforce. Engineering skills were only part of the equation. Management, computer, and design skills were also important, as were "soft-skills," such as critical thinking, communication, computational reasoning, and teamwork. To meet these needs, MSU Denver created the Advanced Manufacturing Sciences Institute (AMSI) to promote cross-disciplinary collaboration and a curriculum that requires students take courses in a wide array of subjects as well as specialize in a specific area.

This new vision for advanced manufacturing led to the need for a new dedicated facility. Due primarily to the industry/faculty cooperation in creating a leading-edge curriculum that included 22 entirely new courses, the State of Colorado invested $20 million to assist in the construction of a $50 million Aerospace and Engineering Sciences Building. Industry partners have contributed to this facility, state-of-the-art technology and equipment has been donated, and four firms have signed leases in the facility to increase their interaction with our faculty and students.

Construction Project Management

Once again, success begets success. Industry approached MSU Denver asking for an expansion of the manufacturing curriculum to include trades that often begin with apprenticeships rather than formal higher education. It is often in a company's best interest to promote from within when looking for management talent but the type of education needed for these positions is often lacking. Most trades have rigorous apprenticeship programs that lead to journeyman's credentials and workers do not seek higher education to move beyond their trade. Upon examining Switzerland's model of combining work, apprenticeships, and higher education, the institution created a pathway for journeymen to matriculate into the institution with 30 credit hours granted for apprenticeship and journeyman credentials. This valuing of past experience makes it possible for trades people to gain the education needed to advance in their industry without "starting over."

Conclusion

Transformative learning takes many forms and begins with excellence in pedagogy. Active learning techniques, conveying relevancy, and assessing outcomes are critical to effective and lasting knowledge and skills. At MSU Denver, such pedagogy starts with the end in mind and moves backwards to ensure curriculum infused with the knowledge and skills students and employers need to be effective in the rapidly changing 21st Century workplace. Conversations with industry partners all indicate that specific skills are indeed necessary but it is what learned while practicing that is most important to for the current and a largely unknown future job market: teamwork, communication, problem solving, leadership, and critical thinking.

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People, Practices, and Patterns: Transforming into a Learning Institution

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Abstract

Organizational transformation takes time, energy, and patience. An active administrative unit, The Hub for Innovation in Learning and Technology (called simply, the Hub) engaged intentional change from its inception. The Hub aspires to help Michigan State University (MSU) "reinvent itself as a learning institution" by transforming ourselves so that we might transform others. The authors, all current employees of the Hub, provide an in-depth look into the challenges and triumphs of purposeful organizational change. Without change, MSU would maintain existing gaps on measures of student success among different demographic groups. The key audience of these efforts are learners in the university while considering the surrounding system of faculty, staff, administrators, curriculum, assessment, and student engagement efforts. The Hub catalyzes innovative ways to collaborate, learn, research, and improve learning. We design new opportunities that take advantage of skills and connections across the disciplines. The Hub adapted work practices that can sustain transformation. The Hub also built a physical space reflective of these strategies. Initial practices resulted in a series of careful, bold learning pathways focused on new capacity and professional development for stakeholders. We extrapolated experiences, practices, and findings for other transforming university, business, and organizational contexts.

Keywords: organizations; systems change; spatial development; self-reflection; capacity

Introduction

Existing cultural practices and paradigms can yield difficult habits to break, even when those practices no longer serve students well or provide any other benefit (Kuhn, 1962). A key response to a desire or need for change includes making a number of organizational, structural, relational, symbolic, or staffing changes (Bolman & Deal, 2013). Unfortunately, the strategies employed by leaders and faculty either lack coordination or simply address problems at the surface without addressing underlying causes (Senge, 2006). Within this article, the authors will discuss the evolution of an academic-administrative unit at Michigan State University (MSU), and how this organization, the Hub for Innovation in Learning and Technology (the Hub) seeks to reinvent MSU as a learning institution.

With the transformations the Hub has begun to implement, MSU intends to address organizational learning from multiple perspectives simultaneously. To accomplish perspective taking, a key practice of the Hub is regular self-reflection to learn from experiences. The Hub also engages its partners in regular self-reflection to create solutions that encompass the underlying complexity of persistent problems.

Value Proposition

In early 2015, a unique set of leaders, ideas, and budgets coalesced into a committed network of faculty and staff focused on curriculum, technology, assessment, and culture building. These factors combined to create the Hub. In just a few months, MSU chartered this organization and charged it with "reinventing MSU as a learning organization," (Grabill, J., personal communication, 2015). As a result, the Hub sought to provide a focus for the university in addressing the following related opportunities:

- The opportunity to enhance MSU's pedagogical and technological support for learning while building human capacity for the continuation of that support.
- The opportunity to identify high-value learning outcomes and ways to research, measure, and analyze those outcomes. In the domain of research on learning analytics, for example, MSU began and helped lead a conversation about what inclusive and high-quality learning looks like in higher education and is working to realize that opportunity.
- The opportunity to do innovative work in the domain of undergraduate and graduate education.

The Hub also sought to address a number of new challenges:

- The lack of a clear and focused intellectual and physical space on campus concerned with the identification, facilitation, and development of scalable learning innovations that can aid large numbers of students.
- The lack of a space on campus that could serve as an incubator for new learning models, new uses of space, new uses of technology, and new forms of collaboration.
- The lack of a strategy for online and digital learning that encompasses both on-campus and distance learning. Related to this is the necessity to execute that strategy in line with the mission of the university.

As a support entity, the Hub aimed to facilitate better learning pathways through pedagogy, technology, accessibility, and connections between learners and teachers. The Hub intended to find out what students *need* and *want* out of their educational experience. The potential value to students at MSU became clearer through a series of ongoing leadership conversations, with purposeful student involvement. These conversations included creating a space for active, engaged, and influential learning and working to close the gap between faculty and students by increasing communication and eliminating barriers. But how?

To approach these aims, the Hub modeled the behaviors it wanted to see in the university. An early task of the Hub was to generate creativity and urgency for interventions in student academic success. In this effort to create organizational change, the Hub began with people the staff believed to be interested in improving student outcomes. This included not only team members, but project partners as well.

At the same time, the staff had to build its own team. Coming together from several different administrative units on campus, Hub staff had to build rapport internally and begin to create a

non-hierarchical organizational practice, characterized as a "flat" culture. This meant that the Hub staff collectively expressed feedback for projects and processes daily. As part of the staff, we were asked to challenge assumptions and establish new processes to do so in a way that created conversation, rather than prescription. Staff also had to be welcomed to offer feedback and apply their skills in a way that would help evolve the collaborative culture with both our team members and our project partners. As the Hub learned and evolved, a story emerged which detailed the journey the Hub took toward progress.

To tell this story, we first ground our discussion in the literature of learning organizations. Next, we focus on how people enact their practices and patterns as examples of a transformative organizing principle. Finally, we [1]describe how a nimble organization emerged over time as a means to reinvent MSU as a learning institution by targeting student learning experiences and outcomes (Figure 1).
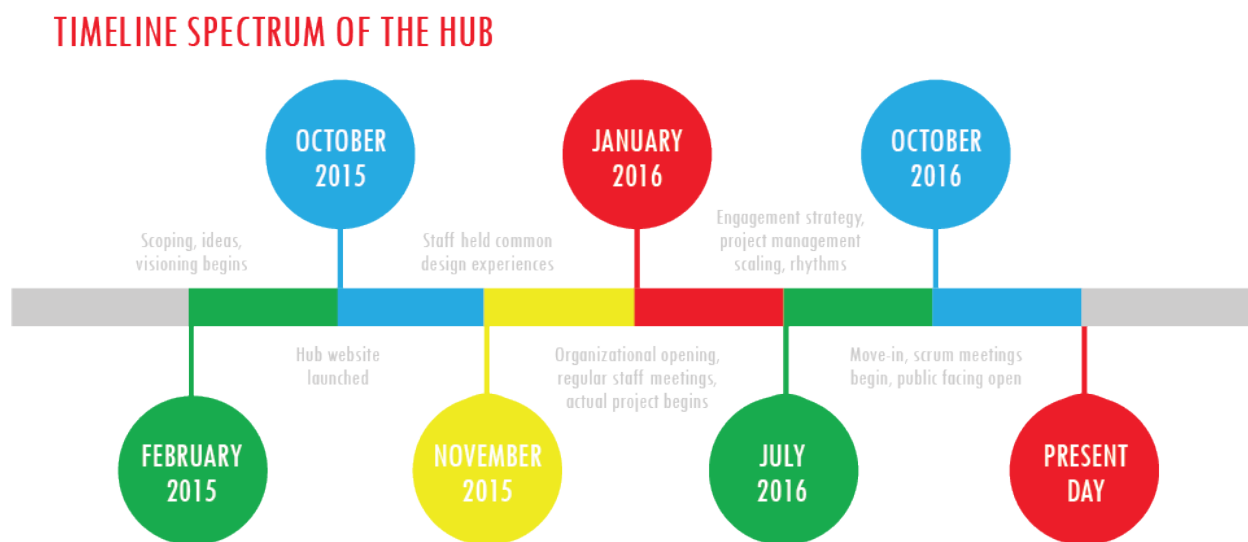
TIMELINE SPECTRUM OF THE HUB

Figure 1. A timeline and practice spectrum of the Hub.

Review of Relevant Literature

Transformational Learning

The development of the Hub organization has been an experience in transformation. According to Mezirow, "a defining condition of being human is that we have to understand the meaning of our experience," (1997, p. 5). The development of Hub work and culture focuses on this idea, and has become a frame of reference for staff. Further, we have focused this guiding principle

outward in an attempt to understand how our campus partners are experiencing this change with us. According to Mezirow:

> "A frame of reference encompasses cognitive, conative, and emotional components, and is composed of two dimensions: habits of mind and a point of view. Habits of mind are broad, abstract, orienting, habitual ways of thinking, feeling, and acting influenced by assumptions that constitute a set of codes. These codes may be cultural, social, educational, economic, political, or psychological. Habits of mind become articulated in a specific point of view—the constellation of belief, value judgment, attitude, and feeling that shapes a particular interpretation," (1997, p. 5–6).

Intentional reflection among staff and project partners is a key component of transformative learning, and purposefully informs each stage of project development, as well as into expectations for staff. Continuous learning and experimentation is the customary practice, as is sharing what was learned from failures in the process. As found in Liimatinen, Poskiparta, Karhila et al. (2001), reaching the level of critical learning requires a focus on the practice of intentional reflection as a part of the learning process. In addition to learners, Hub staff are also educators, requiring another layer of critical reflection. Cranton & Carusetta (2004) recommend that those in teaching roles reflect upon their sense of self as not only teachers but also people, finding that those who do are more likely to articulate the values their practice is based upon and share it with others.

Kreber (2004) noted that while reflection is important, and many people say they build opportunities for reflection into their work, this is not often the case, as those same people frequently cannot provide an account of their activity that demonstrates engagement in reflection. We counteract this tendency by operationalizing intentional reflection as an activity. We also use reflection as a means of documenting and sharing practices.

Transformational learning has many meanings ranging from micro changes in neural connections to wholly changed individual identities and choices. We have identified a set of observations and outcomes about our own organizational changes. Changes in individual habits, physical spaces and uses, and social interactions across the organization receive our attention. We also share stories and evidence of our adopted goal of transforming ourselves in order to transform the larger MSU institution.

Being a Learning Organization

Organizations that learn from data and experiences can transform. The essential process is similar to individual transformation, although it requires more conscious thought and coordination in a group or organizational setting. The Hub emerged within this complex and mature higher education environment to provide important symbolic, cultural, and technical support for solving problems in student-success issues. Without coordinating efforts to address complex issues and problems, stakeholders likely perceive that we say one thing but do another. We say we value student graduation rates but may appear to sideline this goal when the institution does not address the issue with sufficient resources (Argyris & Schön, 1996). In this environment, addressing multifaceted academic issues require a clear vision, unified efforts, and

strong leadership. Understanding this environment guides our interactions with stakeholders who have differing interests and motivations, sufficient political will to change organizational patterns, and resources to make measurable progress. Without intentional coordination to address student success issues in universities, individuals and colleagues with different perspectives may unintentionally oppose each other in order to protect their local interests.

In contrast, a learning organization works to recognize tensions between competing perspectives in an effort to create solutions or interventions that value feedback from different stakeholders (Senge, 1996). A catalyst and a result of these practices is a shared understanding or meaning of the purpose of the work. These kinds of organizations move quickly and slowly at the same time. They work fast to build partnerships and create prototypes, while working deliberately to peel back the layers of an issue and examine the connections and feedback loops of the underlying system.

In many ways, the Hub's organizational transformation effort relies on an understanding of systems thinking. Systems thinking relies on people to "make their understanding of social systems explicit" for the purposes of improvement (Aronson, 1996, p 1.). For example, gaps in student success across identity markers is typically a symptom of larger societal challenges. Systems thinking encourages addressing complex issues by trying to address underlying problems. Previous approaches to student success have included additional student support for different groups of students based on identities, representing symptom-based approaches. The Hub works to approach this problem systemically as a means to encourage enrollment management, student support, financial aid, and academic departments to work together. Systems thinking requires us to address the underlying causes and the environment in which the problem occurs. According to Aronson, systems thinking is helpful when facing:

> "...complex problems that involve helping many actors see the 'big picture' and not just their part of it; recurring problems or those that have been made worse by past attempts to fix them; issues where an action affects (or is affected by) the environment surrounding the issue, either the natural environment or the competitive environment; [and] problems whose solutions are not obvious" (1996, p. 1).

Contrary to linear problem analysis, systems thinking seeks not to take apart the elements of an argument, but rather to look for the ways that those parts and their movements affect one another and observe how short-term decisions affect long-range consequences.

The Hub aims to employ systems thinking by creating shared meaning among stakeholders and facilitating opportunities for organizational reflection. By learning as an organization, we expect that our group might experience a transformation. The object of this transformation is simultaneously the Hub itself and the larger entity of MSU. We adopt Senge's (2006) description of "learning organizations" as:

> "...those organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together," (p. 4).

The Hub strives to be a learning organization. The staff and leaders encourage and reward both self and group reflection. In essence, we reflect the sentiment that a learning organization is a group of people working together collectively to enhance their capacities to create results of value for many people (Fulmer & Keys, 1998). These documented reflections serve to guide communication among the Hub team, our project partners, and institutional stakeholders.

From Ideas to Action: The First Project of the Hub is the Hub

The Hub has aligned its intentions and activities in order to reinvent MSU as a learning institution. We further this goal by a few patterns and behaviors that, taken individually, might not make an impact. However, taken together, when integrated into a work system, these patterns and behaviors have the potential for extraordinary impact throughout the organization of MSU. Activities the Hub uses are Design Thinking, scheduled and unscheduled (pop-up) coworking, regular brainstorming, weekly coordinated staffing rhythms, project staffing decisions, and self-reflective behaviors, all of which we will explain herein. Planning our behaviors and work patterns was the first step towards achieving our goal of creating an innovative, open, and collaborative workspace. The next step was to commit to these behaviors in our daily work and follow through on our intentions of diffusing these behaviors across our team and throughout campus.

At its core, the Hub is a design and consulting operation working on behalf individual and teams of stakeholders at MSU. Staff at the Hub listen for opportunities and charter projects. A charter describes appropriate people, time, and resources deployed on behalf of faculty and department led change efforts. Projects have ranged from course level teacher professional development, to department wide curriculum and assessment practices, to institution wide analytics and decision support. Because the Hub receives funds from the campus provost (general funds) no charges are made for services. However, the project charters specify the ways in which the Hub staff will work closely with the project partner. At the end of projects, the project partner 'owns' the solution and the Hub does not maintain support beyond that point.

Intentional Transformation

Design thinking. We began to use Design Thinking as a guiding framework for both our internal processes and to organize our projects from our first conversations. The Hub uses two definitions of design thinking to guide its work. At its core, design thinking is a method of "of meeting people's needs and desires in a technologically feasible and strategically viable way," (Brown, 2008, para. 2). According to Turnali (2013), it is also "...a process, applicable to all walks of life, of creating new and innovative ideas and solving problems," (para. 3). Design thinking methods play an important role in our ongoing work as the Hub in that they allow us to systematically assemble and make sense of disparate views and conflicting campus needs in order to collaborate on and create applicable solutions. We have begun to collect evidence of the impact on project goals and learning gains made by project partners because of working with design thinking approaches. We value the way design thinking encourages teams to work through conversations. At the same time, we lack robust evidence to make claims about success with these approaches.

We consider our use of design thinking as an ongoing inquiry with periodic benchmarks to help us evaluate the efficacy.

Coworking. Coworking is one of the keys to our work philosophy, and one of the ways we facilitate and execute the ideas, solutions, and innovations identified in our design thinking work. Coworking events bring stakeholders campus-wide into a shared space where they can work on their own projects, while sharing ideas and contributing to projects as desired.
"Culture cups" (Figure 2) are used to illustrate availability, and set workspace norms for focus and personal work time and space.

Figure 2. An internal graphic illustrating the culture cup system.

Our open workspace allows for the development of interdisciplinary networks, more collaborations, and idea generation throughout the lifespan of our projects. By working in an open space, we aim to encourage new ideas and organic conversations. We are experiencing instances where people who would not have connected on a project overhear work that parallels their own and share ideas and information. Partners across campus come to the Hub to work for the day in a new environment next to new people, expanding the opportunities for these conversations.

Brainstorming. Brainstorming follows a similar format to coworking in that it utilizes the number of people and ideas in the room. However, while coworking is tied to co-location, brainstorm sessions are more facilitated. Individuals trying to solve problems, develop solutions, or create opportunities can come generate and discuss ideas with our team, resulting in a diverse variety of design ideas, assessment questions, and future directions.

Weekly schedule rhythms. We have developed a pattern of weekly schedule rhythms (see Figure 3) in an effort to create efficient workflows in a fast-paced, multi-location environment. This pattern allows our team to be more purposeful in our planning and workflow by eliminating unnecessary meetings and encouraging a cooperative culture. The Hub reserves Monday mornings for weekly project planning, collaboration, and a 30-minute standup status meeting, which we called SCRUM, and more recently, as our weekly report. Frequently seen in the software development industry, SCRUM meetings are fast-paced stand-up meetings that allow for rapid project updates and conversation on a regular basis. Individual projects still use SCRUM processes when appropriate.

Wednesday mornings are reserved for administrative meetings such as staff meeting, individual supervisory meetings, et cetera. The middle of every Thursday is "be available" time, where all Hub staff are expected to be available to contribute to brainstorm sessions and work needing additional resources. This availability allows for individuals who need more project resources to tap the collective group for formal and informal brainstorming sessions. Additionally, we ask staff to be co-located if possible during this time to allow for organic conversations and contributions to others' work.
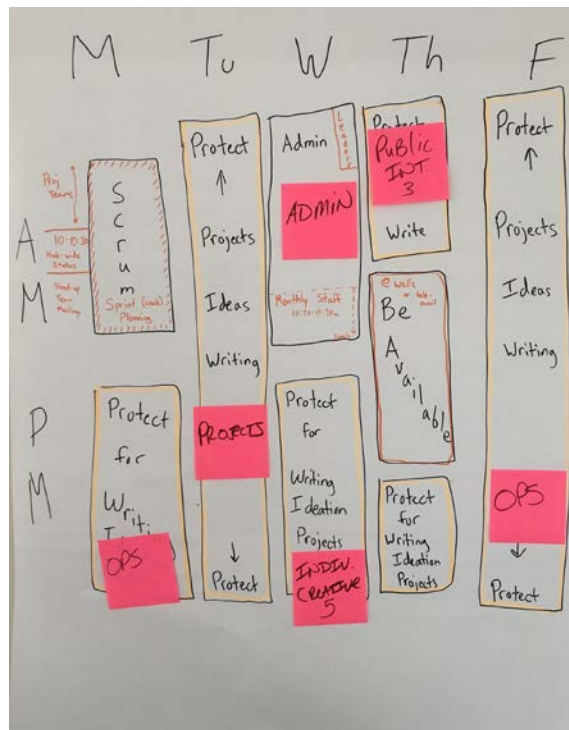

Figure 3. A graphic detailing the general weekly schedule rhythms.

In an effort to make our projects and weekly rhythms more transparent across campus, we also invite others to attend our SCRUM meetings. We encourage our project partners to follow a similar pattern and invite them to be a part of our standing SCRUM meetings or find a block of time that works to conduct a similar status update meeting.

Agile project management. A common critique of higher education is that departments operate in isolation. While faculty publish to their scholarly communities, they often lack active sharing of good ideas and practices with each other. For example, if an academic department has a course in which many students do not succeed, then they unintentionally affect the goal of graduation, perhaps disproportionately. Without a window into that department's practices, system-level administrators or leaders are limited in their capacity to intervene. In contrast to some similar historical patterns at MSU, the Hub's processes and projects are overtly transparent and visible. We build visible and public displays for every active project in the Hub (Figure 4). Using this approach is a blend of Agile methods and transparent work environments as modeled by Menlo Innovations in Ann Arbor, Michigan (Sheridan, 2013).
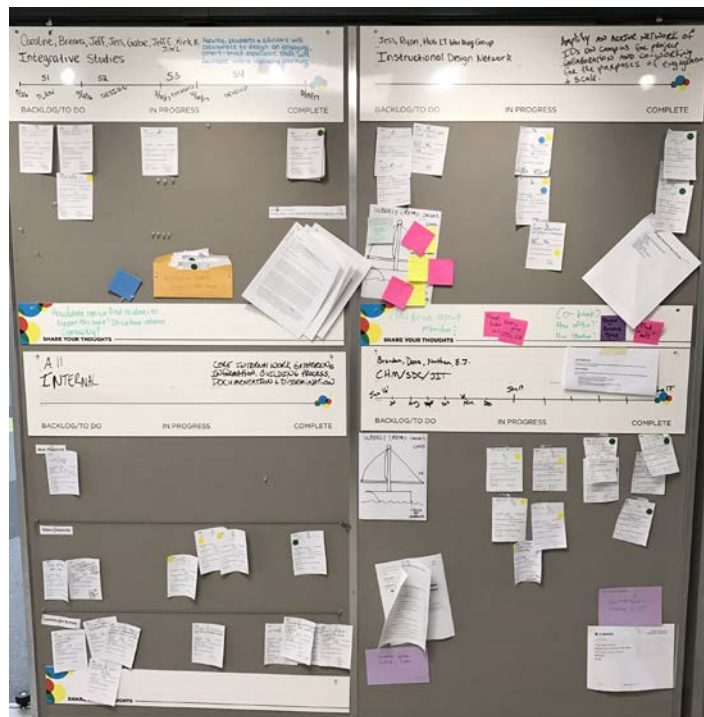

Figure 4. Projects boards on display at the Hub.

Agile project management is described as originating from a movement launched by the penning of the Manifesto for Agile Software Development in the Spring of 2001 on agilealliance.org, which influenced similar movements in manufacturing, construction, aerospace and even project management itself (Highsmith, 2009). The original manifesto describes four key values as a better way of developing software: (a) **individuals and interactions** over processes and tools; (b) **working software** over comprehensive documentation; (c) **customer collaboration** over contract negotiation; **and (d) responding to change** over following a plan.

Here, the authors of the manifesto highlight "...while there is value in the items on the right, we value the items on the left more," (Beck et al., 2001).

Although the product of our work in the Hub is not software, we have drawn from these and other similar principles in the way we go about our work. For instance, the project boards prominently displayed in common areas used in weekly SCRUM meetings represent current progress on key project deliverables, in ways that can quickly represent pivots needed on a weekly basis. Routine operations such as meetings and professional development activities do not currently appear on these boards, but we are experimenting with ways to make notes and feedback visible and usable to others, as an expression of our goal to work transparently. This includes making notes on what is working well and what is failing.

Agile methodologies inform a unique approach to failure and the role it plays in projects. For instance, Menlo Innovations references a large and visible sign on their wall that says "Fail Faster" (Sheridan, 2013, p. 125). The concept of embracing failure seems counterintuitive, but we believe it is imperative for helping the project become more successful in the end. Where traditional project management is often put in place ultimately to avoid failure, Agile approaches intentionally seek and welcome failure as early and often as possible in the process to serve as feedback. Our approach towards the cultural value of transparency is in direct contrast to traditional examples of large-scale projects that ultimately failed out of fear of disclosing fail points earlier on in the project.

The task cards and timelines on the project boards keep us accountable to each other and our stakeholders, and serve as a physical representation of our transparent culture, progress, setbacks, successes and opportunities to learn. Engagement strategy. From the beginning, the Hub utilized a robust engagement and communications strategy to communicate the values and practices of the new unit to increasing numbers of stakeholders and interested parties. We engage our visitors and guests with visual displays and an active co-work environment. Externally, we connect with campus community members through electronic and social media outlets. We maintain our relationships with our project partners through ongoing assessment and communications. In each case, we anchor communications to several key principles, or "story anchors," summarized by the terms: Individual Strength, Collective Power, and Extraordinary Impact. Each principle is grounded in an assessment and data collection strategy to help reiterate alignment to the mission of "reinventing MSU as a learning institution."

Project pacing for external partners. We try to schedule our project work according to locally adapted Agile principles. An example of rhythm and pacing is our work on a project to redesign several general education course sequences to include linked courses, cohorts, and relevant co-curricular experiences. First, a project plan took shape consisting of phases mapped out over the course of the year with deadlines, outcomes, and deliverables. Within each phase, there are planned and focused work times, which last 1-2 weeks to maintain project momentum. Then we established patterns and rhythms with faculty on this co-curricular project by planning design sprints and regular check-in points. Faculty on this project work collaboratively with three interdisciplinary studies directors and the Hub project support team to complete these design

sprints. Hub staff also mapped out the professional development needs for individuals on this project for the coming year.

From a project management standpoint, we enact timelines and deliverables. However, we would not consider ourselves successful if that is all we added to a project. For an external partner to work with the Hub constitutes some agreement, tacit or explicit, with trying to work differently. Our project facilitation practices regularly raise the question of project design through use and reflection, iteration, transparency, and collaboration. Materials and support resources are prepared to guide work-groups through the design sprints. To keep groups accountable, we establish regular weekly check-in meetings with agendas, minutes, and assigned tasks for each working group member to complete by the next meeting. Similar pacing behavior including planning and execution with small working groups, regular check-in meetings, agendas, and assigned tasks has seen different levels of success in a number of Hub projects.

Project staffing strategies. The Hub works to emphasize the individual strengths of experts on campus by creating and nurturing opportunities to leverage the expertise and influence of faculty and staff across our campus. In this way, we steward campus and departmental goals and share the burden of the institution to make an extraordinary impact on student experiences. MSU has an excess of intellectual capacity among experts on campus who are able and willing to help address major challenges in both pedagogy and student success and few opportunities to apply their knowledge. Our practice of engaging experts from around campus allows us to maintain a flexible staffing practice for short- and mid-length projects. Similar staffing practices have been used in higher education for many years (Bresciani et, al, 2010; Jones, Lefoe, Harvey, & Ryland, 2012), and we find that this staffing practice attracts experts in part because people genuinely want to help solve a problem and because it enhances individual and professional networks.

Additionally, engaging people across campus for flexible staffing also helps us build human capacity in collaborative, iterative work practices that we believe will help identify new solutions to big challenges. We aim to build capacity in project management skills across campus as well, so the benefits we offer to a partner are as much a product as they are an experience with a coherent process. In turn, we commit to ongoing individual development through a linked network and through professional communications, which we align with project goals and outcomes to amplify the extraordinary work of our expert partners.

Self-reflective behaviors. In an attempt to break out of old habits and to create new capacity, we undertook the first of what would become a series of self-reflective behaviors. In January of 2016, the Hub explored the mental models held by eight individuals in the Hub leadership team. This group had been meeting weekly from October 2015 to January 2016 and intermittently beforehand to implement the vision of the Hub. A conversation recurred about the future nature of the organization, which we were still imagining. Because the group came together in October 2015 from three units on campus, each with a distinct organizational culture, a fair amount of cultural diffusion and negotiation was underway by January of 2016. At that time, the Hub's Director of Assessment led a small assessment project with the help of two research assistants. The inquiry team examined mental models as a basis for action, similar to habits of mind. An essential function of this research was to identify how this team was trying to fit into or change the campus. We define mental models here as an individual person's conscious or subconscious

conceptualization of information and experience that drives action. As articulated by Holland, Holyoak, Nisbett, & Thagard (1986), these models are often, but not always, illustrated in the form of metaphors and frames of understanding. Mental models often take the form of declarative knowledge (knowing what), structural knowledge (connections between ideas), and procedural knowledge (knowing how to do). Enacted mental models help an individual negotiate and process information in the context of myriad background and context influences (Table 1).

Table 1. Mental models interview questions

DECLARATIVE	• Who are you (individual or group) working for? • What values drive chosen projects? (What projects should be added to portfolio?) • What kind of structure does an individual envision?
STRUCTURAL	• With whom do they want to communicate? • With whom do they need to communicate? • What is difference between project and service? • How do projects relate to and inform each other?
PROCEDURAL	• How do individuals work as project leaders? As a member of a team? As an expert on a team? • How do we communicate? • How are projects selected? • In what order does communication take place? • What issues of caution does the Hub encounter or anticipate?

The team conducted interviews and analyses consistently with an open interpretive coding practice akin to phenomenography (Rands & Gansamer-Topf, 2016). Participants were eight members of the Hub's leadership team. The interviewer made coding and initial interpretations, along with a member of the leadership team, and a research assistant. By discussing these interpretations with the leadership team, we invited a broader effort toward shared understanding. As a new organization, the team expressed some trepidation at this early opportunity to work transparently with each other. The interviews, analyses, and visualizations helped the leadership team translate their existing organizational patterns into a shared mindset. Table 2 (below) shows themes and attendant descriptions that emerged from eight interviewees.

Table 2. Themes from mental models interviews

People	Connecting stakeholders/customers/whoever has a need to ideas (design, know-how, IT & technology, relationships & communication, listening)
	Focus on stakeholder groups (assume people are working/important within that; it's not that the entire organization is dependent on specific key individuals but it's how The Hub hangs together in relation to other organizations)
	Mention internal MSU stakeholders/people
	Mention external stakeholders (industry, non-MSU)
Ideas	Enhancing ongoing discussions/conversations (ideas, projects, possibilities, re-thinking)
	Gives concrete examples
	Gives abstract framework
	Mention dangers, problems, pitfalls
Projects	Multiple/big range of topics, open-ended (R&D, degree programs, departmental initiatives)
	Projects lead to (change, innovation, new possibilities)
Structures	The Hub of activity (ideas, projects, possibilities)
	Describes elements of a horizontal/flat, open-ended, fluid, flexible organizational structure
	Describes elements of vertical hierarchy, not necessarily rigid power structure but could be well-defined roles/responsibilities
	Focus on projects as the basic structure or driver of activity
	Focus on services as the basic structure or driver of activity

There was a sense that the Hub was--and perhaps still is--at the intersection of a variety of ideas, projects, and possibilities, and that part of the Hub's job was to connect people and resources together. Key resources clearly included design thinking, knowledge, process strategies, relationships, and communication. Equally clear was that the Hub did not want to be perceived solely as a technology incubator. Most people mentioned the Hub's role in improving or enhancing ongoing discussions on a wide range of topics, and not concentrated on one specific type of project.

Participants varied in their assertion that the Hub's consulting services and partnerships were helping to advance innovative ideas (i.e., in a curriculum). Participants did not agree that the

Hub's way of working, which was consultative and facilitative, in general would lead the campus to innovation and change. All participants mentioned stakeholders on the MSU campus such as the provost, faculty, staff and leaders, and students; several participants also mentioned external stakeholders, such as industry and markets. These comments pointed to additional opportunities if the Hub looked outside of campus for possible partnerships.

The participants, expressing the desire for a relatively "flat" organizational structure, identified the basis for the current organizational practices. A flat organizational structure, they believed, would include intentionally informal activities to lower barriers and create more transparency. The one participant who described a more traditional vertical hierarchy also described himself or herself playing multiple roles (leader, major role, or minor role) in various projects underway simultaneously. Another participant's idea of a distributed labor platform was later implemented as our project management and essential staff assignment structure. This structure, combined with efficient time and project management, provided the most flexibility for an innovative organization with a broad outlook.

While the mental models interviews were not meant to be predictive, they were illustrative of differences in opinion about the organization as embodied by the staff. Discussions allowed for processes and ideas to surface in new ways, and thus served as an important real-time, self-reflective prompt for the team. In looking at our journey, we can point to several instances where the now-current ideas emerged from the thinking and experiences of employees during the early months of discussions, trials, and errors.

Feedback and Indicators

The assessment strategy of the Hub aims to help us know more about our work in practical and informative ways. The Hub designed its approach to yield both formative and summative analyses of data, information, practices, and impacts. The strategy encompasses a collective effort among staff to listen for and recognize various indicators of success. Individual team members may need to learn how to identify or recognize such indicators across engagement, risk, human capacity, and tangible goals. Other organizations might assign such tasks to different groups such as business development and human resources. But in the Hub, projects will only be considered successful if teams attend to the whole.

Engagement

Complementing these essential project indicators and feedback is a formal external engagement and communications strategy, utilizing story anchors, and an institution-focused assessment plan with regular reporting. Story anchors serve as the connection point for Hub cultural values, project assessment data, and external facing reports and communications. Assessment reports draw on records of indicators and feedback captured in a variety of media and networks including social media, Agile project boards, internal communications, space use and calendars, and other specific reports such as the self-study mentioned earlier (Figure 5). In turn, feedback from summative reports and external engagements inform the formative assessment loop.
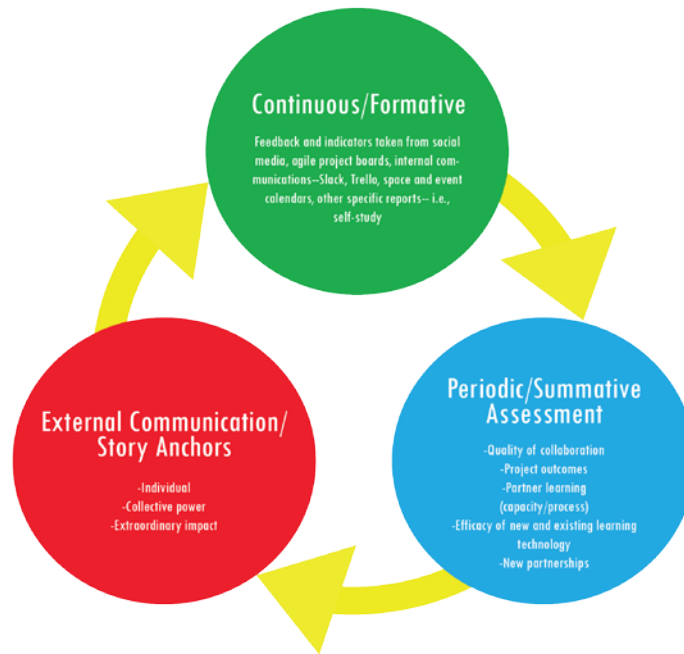
ASSESSMENT STRATEGY

Figure 5. Assessment and Feedback Strategy.

Currently, data for the summative assessment metrics are being gathered for our first external facing report (Grabill, 2017). The use of continuous indicators, feedback, and engagement strategies drive the Hub forward. Several important indicators are described that have helped us define our work and patterns for the campus.

We track engagement for our various social media and our main website. The engagement indicators with these pages and accounts have seen more growth than anticipated, most notably with external accounts such as Facebook, which saw an increase from 0 followers in October of 2015 to 660 and counting in December of 2016. Further, the Hub website has seen a steady influx of visitors ranging from 36 to 445 per week from January to December 2016. In addition to external metrics, we also track internal communications with our team via the team-messaging platform Slack. These data then inform the ways in which we communicate and interact with our partners, and help us identify and hone strategies that are timely and effective for the collaborative culture we are trying to establish. Monitoring for project deliverables is the primary impact analyses strategy for our early efforts. As mentioned previously in the weekly time rhythms section, our team reports on project progress and deliverables each Monday morning during our reporting meeting.

Risk-Ttaking on Behalf of Others

At times, the social-political risk of behaving differently among peers is too great (Bolman & Deal, 2013). Because some staff and faculty on campus will not effectively change work patterns until evidence of a clear impact and reward is present, an important indicator we attend to is risk. We have taken an initial risk on behalf of improving student success by creating this organization with an open and collaborative work culture, rather than rely on somewhat isolated efforts. We took a second risk by publicly committing to goals and accountability. We collaborated internally and externally to build a set of projects that more intentionally execute designed innovations. We open our practices and work patterns to external analyses to gain insights faster. Simultaneously, the Hub aspires to be an example for others on campus to take similar risks and normalize the uncertainty associated with taking on projects with unknown outcomes. However, this kind of transparency makes it imperative that we share both successes and failures publicly. Further, as the designated "innovation" space, we must not own the projects, for our partners, but rather facilitate the success of others. To facilitate this load sharing, Hub staff share project management and planning responsibilities with project partners. We intentionally place ourselves in positions to be accountable on behalf of the project for rhythm and pacing of work, and for keeping groups on task to push projects forward.

Human Capacity

From a human and project capacity standpoint, the Hub balances between large-, medium-, and small-scale projects. Across each of these projects, there are similar characteristics of time, effort, planning, and implementation. Generally speaking, we have focused our early efforts on projects that make relatively fast, highly visible impact on initiatives in student success. Further, we have set clearer limits about the kind of projects we take on. For example, we work not to replicate services that are already available elsewhere on campus. In these situations, instead of a production role, we take more of a facilitative role, connecting needs to existing services or collaborations.

To support internal human and project capacity more efficiently, we have adopted new meeting structures. Each meeting has clearly articulated agendas, with goals that maximize productivity and reduce wasted time. We have prioritized working together through our shared scheduling rhythms, allowing for fewer and more efficient meetings. We have adopted searchable messaging and project management tools such as Slack, Trello, and Google Drive, which allow us to self-serve resources that might have otherwise required a meeting. From a technology support and service perspective, we have shifted our focus away from the manual development and production of online courses for faculty. Instead, we work with faculty and departments to teach them how to do most course production work independently, and focus more development time on development of resources requiring advanced technical skill such as immersive environments and interactive media.

Tangible Patterns and Goals

In October of 2016, we opened a new physical space on MSU's campus that is at once an office and a public expression of our values and practices. In this new space, we have allowed for experimentation with norms for noise, communication, function, space uses, and addressing challenges based on emergent properties of the space. Since moving into the new space in a central campus location, we have been better able to observe the social systems and organizational habits of the Hub. Prior to moving during October of 2016, the Hub team worked in separate locations on campus. Efforts to make organizational and administrative patterns explicit occurred largely online or at individual meetings. Working in a central location where all Hub employees and partners can co-locate provides opportunities for patterns, habits, and other social systems to become more explicit in everyday activities and communication. We are developing a better understanding of our team members, our partners across campus, skill sets, and our capacity by working together in a central location on a regular basis. Rather than working in sequestered offices, we are now working in an open office environment, which provides daily opportunities for parallel projects to intersect in casual conversation.

Our senses are engaged in a number of ways in this open work environment. We can see physical signs of the workflow of the Hub when task cards move on team members' project boards, we can hear when project partners stop in for a meeting at the next table and when there is a buzz of discussion in the space. While the Hub has been operational since January 2016, moving into a single space in October 2016 provided tangible opportunities to track and understand our systems and work. Working together has provided the opportunity for us to gather meaningful feedback on internal software, social media, and project collaboration, each helping to inform what our next steps can or should be.

Learning and Improving

We have observed changes among Hub staff for increased individual capacity for Hub projects and identified examples of how our projects influence work patterns, pacing, and outcomes for our project partners. A discussion of these follows. We realize that an opportunity like working to reinvent MSU as a learning institution requires preparation to take risks and to fail. Innovation and change can only happen if we collectively acknowledge this risk from the outset. Early planning messages proposing the existence of the Hub pointed to indicators of success:

> We will have some success by designing or engineering outcomes. But most important will be creating incentives, patterns of behavior, and supporting spaces that facilitate connections that enable the Hub and MSU to benefit from accessing information, opportunities, people, and ideas and putting those assets in relationship to each other. Innovation will be a function of the Hub's ability to connect, communicate, discover, and execute in partnership with others (Grabill, personal communication, 2015).

It is too early to determine if the Hub has yet realized the transformational goal of reinventing MSU as a learning organization. In fact, many of the active projects may take three to five years before we will be able to determine meaningful progress on the project audience. At the same time, we reflect here on how the applied ideas behind the culture building, the spatial designs,

and our collaborative projects have influenced the daily habits of our work to be more agile, adaptive, transparent, and communicative.

Lessons Learned on Spatial Design

Previously, we discussed some of the group's experiences designing and inhabiting a new space. Although the general sentiment of employees in this new space has been relatively positive in terms of the effect it has had on complementing our cultural efforts, there have also been lessons we have learned in the time we have occupied it. As we continue to learn and work simultaneously, it is our intent to share our findings publically for other groups who may want to experiment with similar practices. For instance, the previously mentioned culture cups that indicate our individual availability status came about in response to the sometimes loud and distracting nature of the open work environment. Although in our spatial designs, we designed "focus rooms" geared for projects or meetings that need a quieter and distraction-free environment, there are times where employees of the Hub are working at their desks and need to focus on a project and indicate that it is not a good time to be interrupted. When all concerned collectively recognized this as a need, a co-work expert in the Hub adapted quickly by finding a solution to test using these color-coded culture cups. The cup system was adopted from other open working space models. In fact, part of the reason we collectively value the importance of sharing what we are learning in public spaces is because we benefit from others doing the same. We not only learn from other working groups around MSU's campus, but also continue to learn from groups at other institutions and in other sectors around the world. These groups often report similar reciprocal benefits from the practice of "learning out loud," either as public intellectuals or even as acts of benevolence from kind people willing to share what is working and what isn't.

Lessons Learned on Culture

The cultures, work rhythms, project plans, management tools, communication plans, assessment plans, and events each represent our attempt to create a culture of intentionality. We aim in turn to build capacity among our colleagues and peers for similar work, thus reinforcing our cultural-level impact on the campus. We have begun to see evidence of these impacts in the course of an academic year. In three cases, leaders from other areas of campus have asked us to help them be a hub-like operation for their subset of tasks. Further, our network building efforts have yielded new partnerships and relationships with various colleagues integrating certain behaviors. Our colleagues see examples of unexpected collisions yielding new collaboration such as hosting coworkers, technology workgroups, reputation building, and social media engagement.
By celebrating these successes, we do not want to imply that these processes have been easy. Reconfiguring service offerings and learning to say "no" has been a challenge. In some cases, departments and individual faculty had been accustomed to seeing production and course-building services being the primary focus of what instructional support and innovation was. Additionally, moving a group of designers and researchers with different instructional, technical, and professional philosophies into an open workspace, with new, different, and sometimes contradictory expectations and processes has been challenging. At the same time, we have aimed to help people grow as individuals, colleagues, and professionals.

Lessons Learned on Engagement with Partners

As with any new endeavor, what matters externally includes our reputation for being a good partner. We have internally defined being a good partner by linking quality, openness, and flexibility in support work to the success of the project. Further, we aim to create ongoing, meaningful engagement opportunities and metrics for our visitors, participants, and project partners. This includes informal conversations that take place because of us working in a space intended to be open, inviting, and accessible to the broader community. It also includes existing in relatively more formalized events like our coworking sessions, meetings with external stakeholders, and project-specific design-thinking workshops. Some events are more formal than others, depending on the nature of the work but each come wrapped with intentionally collaborative planning, delivery, and reflective components. For instance, in "Eight Lessons (We Learned Yesterday) for Running a Design Thinking Workshop," a blog post published by Dr. Leigh Graves Wolf (2016), Assistant Director of the Hub, reflects on ways we have been learning to improve our design thinking workshops. In that piece, Graves Wolf mentions things that have worked in these sessions, but also things that have not been working and what we have been doing to improve these learning experiences for our partners.

The Hub staff has conscientiously observed its own patterns for opportunities to improve, which in turn have led to an ample number of experiences and reflections. By scheduling discussion and reflection conversations—on both project work and internal processes—at regular intervals, the Hub staff have collectively created data and meaning that we believe should lead to organizational improvements. Further, by protecting time and expecting staff to contribute, the reflective work is shared. Moreover, because the culture of the Hub aims to be inclusive, the lessons reach across teams, leaders, and students in the large staff group.

Conclusion

As this small organization passes its first anniversary of practice, we find ourselves less in startup mode, with fewer experiments and more evidence of process continuity. Increasingly, a focus on project impact is becoming a central part of planning conversations in the Hub. We know that scaling up good projects is important. We also know that, to us, a good project includes content goals, capacity goals, and process goals.

We have seen that the potential value of the Hub seems to resonate with people. In some cases, they see themselves adopting some of our practices for their own organizations. To that end, we feel like we have a responsibility to share the story of the Hub. We are trying to change MSU from the inside out by being the Hub, by embracing our beliefs and culture, and encouraging other people to similarly change their institutions. MSU is not the only institution to attempt reinventing itself. We see interest elsewhere and, as the Hub, want to be a model for change. We want to see a cultural revolution within higher learning institutions, and believe that the best way to achieve this is for others to adopt similar practices of work and reflection. We think this diffusion of practices and ideology will result in a movement toward collaborative, effective learning organizations within higher education. As the Hub continues in its experiment, we see excitement, interest, confusion, and debate around the concepts of the Hub. We are regularly asked: Can this work? We respond with a simple transformation: *How* can this work?

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Exemplary Models of Faculty-Driven Transformative Diversity Education Initiatives: Implications for Metropolitan Universities

Chaunda L. Scott and Jeanetta D. Sims

Abstract

Diversity and diversity education are driving forces in metropolitan universities that seek stronger alignment with nearby metropolitan statistical areas. As a result, many metropolitan universities wish to engage in diversity efforts; however, they often lack the resources for doing so. In addition, institutional efforts are often the result of administrative-originated programs of diversity impact rather than faculty-driven curricular and co-curricular efforts (Scott & Sims, 2016). In this case study, the authors offer two faculty-driven diversity programs with a proven record of accomplishment as models of transformative learning practice for faculty and institutions to replicate. The programs have been in existence for more than 10 years and have benefited both the students and universities alike.

Keywords: transformative learning; Diverse Voice Conference; Oakland University; diverse student scholars; University of Central Oklahoma; undergraduate student research

Introduction

> "True diversity remains a struggle for many colleges."
> —("Diversity in academe," 2016)

Metropolitan statistical areas (MSAs) typically include large populations of people who represent a diverse set of identities based on age, ethnicity, race, religion, sexual orientation, and other areas of identification. Metropolitan universities, which are educational institutions located near MSAs, are challenged with adequately accomplishing workforce diversity learning, which involves equipping students with core workforce diversity competencies (see Lahiri, 2008 for a model of seven core workforce diversity competencies with associated proficiency areas). Many authors have previously summarized the facets of workforce diversity programs, curriculum, and degrees needed in higher education (see Scott & Sims, 2016 for exemplars of current and future workforce-diversity efforts in higher education). Moreover, overall workforce diversity learning in academe has not kept pace with corporate counterparts (Scott & Sims, 2014).

The authors argue that metropolitan universities, in particular, have a unique opportunity to address the void of students' professional readiness for workforce diversity and the dearth of programs that build students' workforce-diversity competencies. Through the lens of transformative learning, this manuscript discusses two impactful programs (Diverse Voices Conference and Diverse Student Scholars) that enable students to transform their understanding of others from different identities and of workforce diversity itself. Diverse Voices Conference is a supportive forum for students, faculty, professionals, and community members hosted at Oakland University (OU). Diverse Student Scholars is a robust program of undergraduate

research engagement housed at the University of Central Oklahoma (UCO). Both are faculty-founded initiatives that stem from the scholars' commitment to directly contributing to workforce diversity learning.

This paper begins with a review of transformative learning theory and diversity initiatives in higher education. Then a discussion of the value of faculty-driven efforts introduces a summary of two diversity program exemplars. Finally, the paper offers the implications for metropolitan universities tasked with equipping students to contribute in MSAs.

The Role of Transformative Learning Theory

Mezirow's (1991) transformative learning theory explains how adults learn from their experiences. The theory proposes that learning occurs when individuals make meaning of an experience, which gives breath to that experience. It helps individuals to understand their past, current and new experiences. Mezirow defines meaning in the context of meaning perspectives, which he defined as the "habits of expectation" that serve as the "interpretive codes" through which meaning is made (p. 4). Mezirow's (1991) theory offered the following four ways that learning can occur: (a) learning can take place when one explains an existing meaning scheme; (b) learning can occur when one acquires new meaning schemes in the form of new knowledge and attitudes; (c) learning can take place when one acquires new skills that fit into one's existing meaning perspectives; and (d) learning can occur when one can alter meaning schemes when experiences no longer support a current attitude, belief, or a point of view.

According to Mezirow, individuals reflect on the triggering assumptions that supported the previous view and modify the meaning schemes. As time passes, meaning perspectives may evolve through an assortment of changed meaning schemes. A key facet of how learning can transpire is through perspective transformation. This occurs when one experiences a major life experience (such as a death, illness, or loss of a job), which Mezirow called a disorienting dilemma. According to Mezirow, a disorienting dilemma can cause individuals to reconsider their existing meaning perspective, which can bring about a change in that perspective (Mezirow, 1991).

The final facet of learning offered by Mezirow (1991) is emancipatory learning, which uses reflection to identify and challenge distorted meaning perspectives. "Emancipatory knowledge is knowledge acquired through critical self-reflection and supported by communication with others that allows one to test the insights [they] have acquired through reflection" (p. 87). By engaging in the process of critical reflection and rational discussions with others, adults can develop meaning perspectives that are more inclusive, diverse in perspectives, and integrative of experience.

Though Mezirow's work has been challenged, expanded, and modified through the years (see Dirkx, Mezirow, & Cranton, 2006 and Kitchenham, 2008), it remains a central seminal work on explaining learner transformation. For purposes of this manuscript, learning from experience involves altering one's meaning schemes and changing one's meaning perspectives, possibly through both gradual accumulation of changed meaning schemes and perspective transformation. Thus, Mezirow's (1991) theory of transformative learning is a useful basis for understanding

how faculty-driven diversity initiatives at metropolitan universities can contribute to transforming student's knowledge, skills and abilities in the areas of human diversity and workforce diversity. Next, this manuscript discusses the importance of these types of diversity education initiatives in higher education institutions.

The Importance of Diversity Education Initiatives in Higher Education Institutions

According to the American Council on Education (2012) "collective diversity among institutions is one of the greatest strengths of America's higher education system" (para, 8). Institutions of higher education appear to agree as many have adopted (need a verb: elevating, expanding, embracing, etc) diversity as a core institutional value (citation). These institutions are supporting the integration of diversity practices such as diverse recruitment efforts for students as well as faculty and staff at all levels, diversity courses, diverse student services and diversity programming. The institutions' main rationale for this increased emphasis on diversity is the realization that all students today need exposure to diversity through learning and social activities so they can be prepared to live, work and thrive productively and respectfully in a diverse global society. Additional reasons supporting the need for diversity in higher education institutions offered by the American Council on Education (2012) include:

- Diversity enriches students' educational experiences by being exposed to students from diverse backgrounds.
- Diversity promotes personal growth and a healthy society by dismantling preconceived negative views about cultures and ethnicities that are unfamiliar.
- Diversity strengthens communities and the workplace by preparing students to be contributing members of society.
- Diversity enhances America's economic competitiveness by developing the potential of students from all cultural backgrounds

The Center for American Progress (2012) also offers several reasons why diversity is important on university campuses. First, rapidly changing demographics in our society have made it clear that higher education settings need to be prepared to serve and educate a growing number of minorities. Second, diversity helps all students by enhancing their cultural awareness, social skills, academic attainment and their diverse relationships. Third, changing demographics in our society also implies that unbiased practices in higher education settings help to afford opportunities for all students to succeed academically. As the demographic make-up of society continues to evolve, metropolitan universities should aim to mirror this demographic shift. In this way, all of their students will better understand the important role diversity plays in their lives as a college student and beyond graduation.

Given the increased importance of diversity in higher education, student-focused diversity initiatives become an integral and valued part of the college student experience. These initiatives can play a vital role in providing evidence of the much-needed diversity deliverables capable of generating new meaning schemes or altering existing schemes. In addition, student-focused diversity initiatives can help generate emancipatory knowledge and perspective formation. Next, this article discusses the value of faculty-driven, as opposed to administrative-originated diversity initiatives.

The Need for Faculty-Driven Diversity Initiatives in Metropolitan Communities

Faculty are key threads in the fabric of higher education institutions. Thus, faculty play a pivotal role in advancing workforce diversity learning. In institutions where we have served, faculty are credited with driving curriculum decisions in degree programs, and many individuals will leave the ranks of faculty to work in administrative leadership where they will exert key influence over shaping institutional mission and vision. Thus, in addition to the distinctive roles faculty fill in higher education institutions, we contend that faculty, more so than administrators, are uniquely suited for advancing diversity initiatives in higher education, particularly in metropolitan areas.

Though not as proportionate as desirable, the diversity of faculty in institutions of higher education is often greater than the diversity of administrative leadership in the same institutions. "Changes in the demographics of individuals in academia, particularly in the faculty and administrative ranks, have been much slower than anticipated (Whittaker & Montgomery, 2014, p. 264);" however, the presence of a more diverse faculty positions this group to make a greater contribution in the area of diversity initiatives.

Faculty-driven diversity initiatives have a greater likelihood of sustainability since faculty are more prone to commit to the time investment, resource engagement, and external funding submissions needed for the continued support of the diversity programming that they create. Faculty often build their careers around an investment in their students, in programs of research, and in their disciplines. The ability and desire of faculty to link their personal academic interests to diversity initiative engagement enables the diversity programming to grow with faculty.

Next, faculty-driven diversity initiatives, unlike administrative interests, often stem from creative teaching and research ideas or activities arising from the interests of faculty. This results in a direct connection between diversity initiatives and key academic functions of the metropolitan university. Diversity-linked research and teaching efforts can increase course enrollment, improve in-classroom student learning, and stimulate student learning beyond the classroom. When teaching becomes a part of diversity initiatives, faculty become engaged in a central institutional function that links their diversity activities to tenure and promotion.

Faculty-driven diversity initiatives have the potential for greater heuristic value and metro-area impact. The stimulation of academic clusters, centers, or institutes enable faculty to collaborate when guided by similar interests. These types of temporary or permanent faculty initiatives may focus on teaching, research, or other areas linked to a metro-area need. For purposes of this manuscript, interdisciplinary academic clusters involve interdisciplinary teams of faculty who have made a commitment to pursue a common area of interest in an effort to fulfill a metro-area need (see Sims, 2015). For examples of cluster-initiated activity, see Dartmouth College and Oakland University as examples.

The authors contend that student-focused diversity initiatives that are developed and sustained by faculty are ideal and desirable for institutional engagement with metropolitan communities. Faculty-driven initiatives are more likely to persist after implementation. They have a greater potential to link to academic functions of institutions and of informing tenure and promotion

processes. Finally, faculty-driven initiatives can spur interdisciplinary interactions that foster broader levels of engagement and impact. Here, this article highlights two faculty-driven diversity initiatives.

Two Exemplary Models of Faculty-Driven Student Diversity Engagement
Given the importance of diversity education initiatives in higher education as well as the benefits of faculty-driven diversity initiatives, this section provides an overview of two diversity initiatives developed by faculty for the purposes of stimulating student engagement and transformative learning. Both programs occur at metropolitan universities with the intent of having an impact on workforce diversity learning. Though they are distinct, both represent the main functions of faculty scholarship and engagement through their emphasis on teaching and research.

Example One: The Diverse Voices Conference

In 1998, Dr. Chaunda Scott developed the Diverse Voices Conference (DVC) on paper as an innovative, experiential, and extracurricular higher education initiative. The goals of the DVC are to provide higher education student presenters, renowned scholars, professionals and community members with a supportive forum to speak out in support of valuing all aspects of human diversity and engage in dialogue on real world diversity issues annually. Moreover, the DVC expands diversity education beyond the classroom into a town forum-like setting to broaden the dialog on the importance of human diversity and workforce diversity in our society (Scott, 2014).

The founder was inspired to develop the DVC following the realization that higher education students have limited opportunities to discuss and learn from the real-world diversity issues they see on television and read about on the internet. This is partially due to the sensitive nature of many real-world diversity issues such as race, sexism, ethnicity, racism, immigration and homophobia to name a few. Moreover, the majority of faculty members who teach diversity courses have not been educated and trained on how to lead and manage such sensitive discussions in the classroom; this is because diversity education and training was not a part of their academic studies. In an attempt to address this diversity education issue in higher education, in 1999, Oakland University (OU) in Rochester, Michigan launched its first DVC. OU is a predominately-white metropolitan "student-centered doctoral research institution that encourages faculty-driven and student-engaged research, scholarship and creative activities" (Oakland University Mission, 2017). The total student population at OU stands at 20,020 (Oakland University Fast Facts. 2017). Because OU supports the development of faculty-led innovative pursuits that engage students, especially in the area of diversity, the DVC has continued to flourish for nearly two decades towards advancing diversity education, student-centered work.

As a unique annual program, the DVC always takes place on a Saturday morning on OU's campus in a large auditorium from 10 a.m. to 1 p.m., which does not compete with weekday class times and thus allows more students as well as faculty, staff, professionals and community members to attend. The DVC is also free to attend, open to the public, and funded by OU at the rate of $1,500-$3,000 annually, which includes in-kind support. To date, 60 OU students from diverse backgrounds have presented at the DVC over a 15-year period, and more than 4,000

diverse students, faculty, staff, professionals and community members have attended a DVC during this period. The DVC design takes away the fear of being "graded" so that students can fully connect with, participate in, and enjoy the DVC experience. DVC utilizes a variety of cultural influences such as poetry, music, singing and dance performances to enhance the learning experiences of all attendees. Additionally, each DVC concludes with networking opportunities and refreshments.

In terms of impact, the DVC provides an opportunity for students to revise their human diversity and workforce diversity meaning schemes and habits of mind (Mezirow, 1991); through the one-day event students advance their diversity consciousness as it relates to the development of new positive ways of understanding human diversity and workforce diversity concepts and issues. Moreover, the DVC advances student learning in the focused areas of human diversity and workforce diversity while promoting community engagement, networking opportunities critical thinking, and professional presentation skills. Several parents of DVC student presenters over the past 15 years have also stated that they enjoyed having an opportunity to observe their child in the role of an intellectual orator.

The DVC has received numerous awards including: the Diversity Champion Award presented by the Race Relations and Diversity Task Force of Birmingham/Bloomfield, MI (2005); the Advisor of the Year Award presented by Oakland University (2007); the Presidential Diversity Award presented by Oakland University (2008); and the Educator of the Year Award presented by the Niagara Foundation – Michigan Chapter (2015). In 2015, the DVC model was introduced at Cape Peninsula University of Technology (CPUT) in Cape Town, South Africa as a premier faculty-driven, student-centered diversity initiative that can be replicated and utilized to advance diversity programming at CPUT as well as at other higher education institutions throughout South Africa.

At each of the past 15 DVCs, the organizers have distributed a feedback survey at the end of each conference. The purpose of the survey is to assess the effectiveness of the program by measuring the extent and modes to which the the program influenced the students, both presenters and attendees. The survey data also serve efforts to revise, improve, and create future student-centered Diverse Voices Programs. Although the survey goes to every person in attendance, the student feedback is most important, because the focus of the DVC is on OU and Michigan higher education students furthering their awareness and understanding of human diversity and workforce diversity. Key student suggestions from recent survey data involve adding more student speakers, more refreshments and more student-led cultural entertainment from OU and the greater Detroit metropolitan community.

Within the next three years, organizers plan to expand the DVC into a full-day Saturday conference. Within the next five years, OU intends to expand the DVC into an international student-centered diversity conference. An international conference would require that operating costs of the DVC increase by as much as $3,000-$5,000. Based on the success of the DVC to date, if the DVC becomes an international initiative, students from all backgrounds will continue to attend, participate and learn about the importance of valuing human diversity and workforce diversity. The DVC international opportunity can further result in student presenters and student

attendees alike being better informed and more prepared before they graduate on how to live, work and play more respectfully and productively in our multicultural world.

Example Two: The Diverse Student Scholars Program

The work of Diverse Student Scholars began in fall 2007 with Dr. Jeanetta D. Sims' appointment to a faculty position in the marketing department of the College of Business at the University of Central Oklahoma (UCO). Dr. Sims saw the need to link faculty endeavors (see Sims, 2011, p. 36-37) related to research and diversity with the institution's academic mission on transformative learning (see Barthell, Chen et al., 2013 and Barthell, Cunliff et al., 2010). Diverse Students Scholars began, accordingly, as a mostly undergraduate interdisciplinary research program of student engagement that permitted the faculty member's program of research in the areas of workforce diversity, strategic communication, marketing, persuasion and social influence to serve as the foundation for scholarly inquiry with students. Diverse Student Scholars started with just a single student enrolled in an independent study. Eleven years later, the program has now grown to involve more than 60 students, with as few as one to as many as 21 students engaged in research projects in a single semester.

Through ongoing research project involvement, Diverse Student Scholars seeks to increase the presence of women and people of color in higher education through exposing more students to a key element of faculty academic life – research. In addition, a key desire is to accomplish this through engaging students from different identities to work on various research projects linked loosely to the faculty member's existing program of research. The three-fold mission of Diverse Student Scholars involves: (a) engaging students in the research pipeline process; (b) enhancing students' cognitive, affective, and behavioral skills for both research and professional career preparation; and (c) cultivating students' abilities at interacting and working with people from different identities.

Along with the institutional emphasis on transformative learning, Diverse Student Scholars has grown in tandem with UCO's institutional focus on undergraduate research specifically. In 2015, UCO won its bid to host the 2018 National Conference on Undergraduate Research. Through the institutional resources and opportunities provided in faculty appointments, Diverse Student Scholars has received funding through faculty on-campus research grants, student on-campus research grants, on-campus Student Transformative Learning Record (STLR) grants, and an on-campus Transformative Learning Scholar appointment. From these university-level resources, Diverse Student Scholars has persisted amid a College of Business culture with low levels of undergraduate research engagement in comparison to other Colleges on the UCO campus. The low level of undergraduate research engagement among professional schools, like schools of business is not unique to UCO but represents a national trend (see Sims, Shuff, Neese, Lai, Lim, et al., 2016 and the *Council on Undergraduate Research Quarterly* Summer 2015 Issue). This makes the Diverse Student Scholars program unique in its ability to accomplish student-driven interdisciplinary research engagement in a business college.

The work of Diverse Student Scholars typically aligns with the academic calendar and takes place outside of the typical classroom and course structure environments. By research project, the Diverse Student Scholars founder meets with students in one-hour meetings each week. The

research work concentrates on moving various projects from ideation and design to submission for either client presentation, conference presentation, or journal publication. Between weekly meeting times, students are responsible for completing assignments and performing tasks related to project design, data collection, upcoming presentations, or other research work. Metro-area companies and non-profit organizations have been involved in research projects through students working on projects funded either by grants or through students engaging in projects that develop into conference presentations. Diverse Student Scholars students have presented co-authored research at an international conference (in Cape Town, South Africa), national disciplinary conferences (National Communication Association, Marketing Management Association, North American Management Society, and Greenleaf Center for Servant Leadership), undergraduate student research conferences (National Council on Undergraduate Research), and state-wide conferences (Oklahoma Research Day), along with local metro-area presentations.

Since the program's inception, 100% of Diverse Student Scholars students (who have worked in the program for one semester) have made at least one co-authored conference presentation. Collectively, Diverse Student Scholars students have achieved over 25 funded student grants, 5 funded faculty grants, more than 80 conference presentations, more than 29 research independent studies, nearly 20 proceedings and journal publications, and 3 national conference top paper awards. This level of research production enables students to showcase their professional and career preparation on their vitas and résumés.

Sims, Anderson, Neese, and Sims (2013) provide a summary of the impact of Diverse Student Scholars on students' affective, cognitive, and behavioral abilities. The outcomes of student impact also include increased professionalism, increased contacts/networks, responsiveness to deadlines, and improved self-efficacy (Sims, Le, Emery, & Smith, 2012). Additionally, Diverse Student Scholars students are better able to integrate knowledge, work in a team, and use research databases (Sims, Le, & Smith, 2011). Students of color who were first-generation students with Diverse Student Scholars have reported the outcomes of learning to be a role model and learning to be more persistent because of their engagement in Diverse Student Scholars research (Sims, Anderson, & Murray, 2012). The representation of students involved in Diverse Student Scholars has been more female (56.82%) than male (43.18%) with a higher level of involvement among Black/African American (15.91%), Asian (9.09%), and Caucasian (63.64%) students when compared to the UCO student diversity composition percentages of these racial/ethnic groups (Sims, Shuff, et al., 2016). Numerous dimensions of diversity (e.g., race, ethnicity, gender, religious, sexual orientation, etc.) have appeared among the different identities associated with students engaged in Diverse Student Scholars.

At its 10-year anniversary, the founder has accomplished a number of goals with Diverse Student Scholars with some goals remaining. Along with serving in an elected position as a Council on Undergraduate Research (CUR) Councilor, the mid-range goal of establishing a web presence for Diverse Student Scholars (www.diversestudentscholars.com) was recently accomplished. The website can be a resource for other metro-area faculty and institutions. Fittingly, an undergraduate student research assistant funded from a UCO Student Transformative Learning Record (STLR) grant completed the website design work. Future efforts associated with Diverse Student Scholars involve identifying additional external avenues of sustained support for both student projects and conference presentation travel as well as completing a comprehensive

evaluation of both program impact and workforce diversity competencies (see Sims, Shuff et al., 2016 and Lahiri's, 2008 model) among students at pre- and post-graduation. An additional aim is for the founder to provide more resources and templates from her work with Diverse Student Scholars to other faculty to assist their efforts in replicating the current model or developing new models of student research engagement.

Overview of Impact from Two Faculty-Driven Diversity Programs at Metropolitan Universities

Through a teaching focus (Diverse Voices Conference) and research focus (Diverse Student Scholars), the two faculty-driven diversity programs offer unique examples of improving metropolitan university engagement with metro-area communities and organizations. Table 1 summarizes the key features of both programs of impact for replication and consideration by other metropolitan universities. Though distinct and differing in their execution, both programs offer opportunities for student transformation. Both programs also seek to foster a greater level of workforce diversity learning through advancing key workforce diversity competencies.

Table 1. Key Features of Two Faculty-Driven Diversity Programs at Metropolitan Universities

Areas of Impact	Diverse Voices Conference *Undergraduate and community forum in its 15th year*	Diverse Student Scholars *Undergraduate research engagement in its 11th year* www.diversestudentscholars.com
Evidence of transformative learning	Yes	Yes
Diversity education teaching	Yes	No
Diversity research	No	Yes
Extends diversity learning beyond the classroom	Yes	Yes
Faculty-student engagement	Yes	Yes
Relationship-building	Yes	Yes
Professional skill-building	Yes	Yes
Team-building skills	Yes-for presenters	Yes
Faculty-student time commitment	Bi-weekly meetings for six months	Weekly meetings by project throughout the academic year
Metro-area engagement	Yes through a one-time forum	Yes through research and funded projects
Frequency	One forum per year	Continuous projects
Avg. annual funding	$3,000-$5,000 *varies by local vs. out-of-state keynote speaker fees*	$3,000-$10,000 *varies by number of students involved and conference travel*

A key aim of this manuscript has been to introduce the Diverse Voices Conference and Diverse Student Scholars as faculty-driven programs capable of influencing student transformative

learning at metropolitan universities. "Two major elements of transformative learning are critical reflection, or critical self-reflection, on assumptions and critical discourse, where the learner validates a best judgement" (Kitchenham, 2008, p. 105). Table 2 offers evidence of transformative impact from the self-reflections and discourse of students who have engaged in the two programs either as attendees and presenters (for the Diverse Voices Conference) or as research assistants (for Diverse Student Scholars).

Table 2. Sample Evidence of Transformative Learning Impact from Two Faculty-Driven Diversity Programs at Metropolitan Universities

Diverse Voices Conference *Evidence of Student Transformative Learning Impact*	**Diverse Student Scholars** *Evidence of Student Transformative Learning Impact*
"Wow … the Diverse Voices Conference was great! It reinforced the workforce diversity concepts we are learning in Dr. Scott's workforce diversity course."	"I have enjoyed being a student, but the additional events and activities that I've done have really enriched my educational experience. In fact, I feel like I've learned more, and I understand the things that I'm learning now, because I've had these experiences – especially, the research."
"It was an outstanding student centered learning experience. I learned a lot about how the presenters understand human diversity – along with how I understand human diversity."	"I've had the benefit of having someone sit and teach me step-by-step what to do. I believe every student should have the opportunity to participate in research and gain these experiences if at all possible. It makes a huge difference."
"What I liked most about the Diverse Voices Conference was the student presenters – which were my classmates. They were so well spoken, polished and professional. They all have encouraged me to work on becoming a better speaker and advocate in promoting human diversity understanding."	"These experiences beyond the classroom have made a lasting impact allowing me to explore cities, meet new people, and understand other cultures in a capacity that I would not have otherwise experienced."
"All of the presenters - the student presenters, faculty presenter, keynote presenter, along with the interpreter, singers and dancers provided me with some interesting viewpoints to consider regarding how to further my diversity learning along with what I can do to help eradicate racism in society!"	"It is an undervalued opportunity for students to get more out of their education…Working on research teaches you three important skills that are crucial things employers look at when hiring: responsibility, communication, and teamwork."
Source: Sims and Scott (2016).	

Implications for Metropolitan Universities

Metropolitan universities can hasten their diversity efforts by linking institutional diversity efforts with faculty-driven diversity initiatives that promote student engagement. Institutional efforts leveraged with faculty commitment can result in student transformative learning. Achieving this level of productive impact among metropolitan communities does involve key considerations; many of these are discussed in this section.

Various types of resources must provide support and funding for faculty-driven, student-centered diversity initiatives. Metropolitan universities should consider financial support as well as release time for faculty who have demonstrated expertise and a sustained engagement in diversity initiatives. Faculty-driven programs that have a three-year proven record of accomplishment of success should become established on a more permanent basis. In addition, a professional development stipend may be useful to assist faculty in further advancing their diversity knowledge for the implementation of student-centered initiatives. A travel budget could support faculty and student travel, to present program success at local, national, and international conferences.

Along with resources, metropolitan universities will need to encourage the building of relationships through beyond-the-classroom programs of impact. This manuscript offers two exemplars based on community outreach and research. Beyond these programs, other institutions may develop additional student-centered programs, and the extent that they are faculty-driven will permeate greater success.

An additional implication for metropolitan universities is to engage in pockets of thought leadership related to metro-area needs and key diversity issues. This provides an immediate opportunity for faculty to have an additional outlet for their skills and abilities beyond the classroom while also forging direct linkages to racial and ethnic groups within the metropolitan area.

Finally, an additional consideration is for metropolitan universities to link faculty-driven diversity initiatives to institutional tenure and promotion processes. Student-centered programming that aligns directly to faculty promotion processes provide an extra incentive for faculty engagement; however, diversity initiatives placed in the realm of work that is not linked to tenure and promotion become a barrier for faculty engagement.

Conclusion

In a time when diversity has become increasingly important in higher education, metropolitan universities are stretched with sustaining relevant, student-centered diversity programming that links the institution to the metropolitan area. This article has offered two faculty-driven diversity initiatives that have successfully accomplished workforce diversity student engagement and transformative learning for a combined total of 25 years. The hope is for these two exemplars to spur more faculty-driven diversity programs capable of helping metropolitan universities and transforming metro-area students.

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