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Transformative Learning Outcomes: Shifting the Learning Outcome Conversation from Assessment to Design

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What if the focus of learning outcomes shifted from telling students what they will know at the end of a course to who they will become? Learning outcomes have drifted away from informing curriculum design to providing parameters for external assessment. This article reviews this shift along with a proposal to reimagine learning outcomes as transformative learning outcomes. It discusses previous work on transformative learning outcomes and proposes a new conceptual definition: learning outcomes that articulate habits of mind or ways of being that students will develop because of a learning experience or sequence of learning experiences. Such learning outcomes must target specific aspects of a student's identity that the course will develop and be perceived by the student as connecting to multiple life domains. Courses designed to target transformative learning outcomes provide possibilities for interdisciplinary curriculum development and may more effectively facilitate learning transfer. The article also provides a short case study as an example of how transformative learning outcomes can influence course design and delivery.

What if learning outcomes—commonly utilized only as targets for assessment—served as the driver for designing transformative educational experiences for students? This article attempts to address this question and proposes a way to rethink the design of higher education curriculum by critically examining the historical focus of learning outcomes and proposing a shift toward transformative learning outcomes. Evidence suggests the purpose of learning outcomes has drifted away from a student-centric focus on curriculum design and toward a managerial-centric focus on learning assessment (Erickson & Erickson, 2019).

In this article we want to add our voices to those who have called for learning outcomes to become more embedded in the curriculum design process (e.g., Alfaunzan & Tarchouna, 2017); but we also want to suggest that learning outcomes, themselves, need to be reconceptualized. We propose that, for learning outcomes to most effectively influence curriculum design, they need to be seen as accessible and relevant to students. In fact, we suggest that when students can easily make connections between course learning outcomes and their own educational, professional, civic, and personal lives, these outcomes have potential to become transformative.

Learning outcomes are too often constricted to disciplinary specific skills and competencies that students may or may not feel connected to or that are written so broadly that students have difficulty seeing their relevance. These points of disconnection potentially limit the possibility of relevant transformation to a relatively narrow educational context. Additionally, learning outcomes are often developed with deference given to external stakeholders, such as accreditation or legislative bodies, rather than with the personal, educational, and professional goals of students in mind.

Research suggests that, even when learning outcomes are used to design curriculum, they too often focus on lower-order cognitive tasks. Several studies employing the revised version of Bloom's taxonomy (i.e., remember, understand, apply, analyze, evaluate, and create) (Krathwohl, 2002) indicate that a preponderance of the reviewed course learning outcomes rarely address cognitive processes (Kumpas-Lenk et al., 2018; Momsen et al., 2010). This is troublesome because higher-order cognitive processes (e.g., analyze, evaluate, and create) are the competencies most in demand in the postgraduation workplace (Redecker et al., 2011).

The purpose of this article is to discuss a student-centered approach to aspirational learning outcomes that would more intentionally guide the design of curriculum to inspire student engagement. We introduce a formal definition and specific characteristics of transformative learning outcomes (TLOs). We argue that learning outcomes should provide students with categories within which their personal, educational, civic, and professional transformations might unfold and through which they can articulate their transformations to themselves and others. We also propose that TLOs provide instructors and students with an aspirational endpoint to guide the design of co-created learning experiences. To provide evidence of this process in practice, we conclude the article with a TLO case study example from an integrated study abroad curriculum.

A Brief History of Learning Outcomes

Learning outcomes originated in the postindustrial revolution movement that sought to standardize the design, delivery, and assessment of education (Davidson, 2017). The mastery of learning movement further entrenched learning outcomes in higher education in the 1970s and 1980s as educators sought to assess observable products of the teaching process

(Scott, 2011). According to Scott (2011), the movement's primary philosophy was that "learners must achieve (master) specific learning outcomes before being permitted to proceed to the next stage"—an approach that was "fundamental in the birth of the Outcome Based Education (OBE) movement in the '80s which puts emphasis on the outcomes of learning processes rather than the input" (p. 2). More recently, learning outcomes have become a way to address the growing demand for objective proof that curriculum was producing observable outcomes (Hussey & Smith, 2002, 2003). Learning outcomes have, over time, been deployed to serve multiple purposes: communicating to students the competencies they will gain upon completing a course; assisting instructors in the development of curriculum intended to produce specific outcomes; enabling university administrators to assess what graduates of their institutions are achieving; and allowing accreditation bodies to establish and assess standards of quality for universities, colleges, and departments.

But many assert that the learning outcome movement has fallen short or is perhaps even constraining student learning (Brooks et al., 2014; Northwood, 2013). Critiques cluster into three primary categories: concerns with learning outcomes as primarily managerial tools; doubts regarding how often learning outcomes guide the design of curriculum and instructors' efficacy to use learning outcomes to design curriculum; and the relevance of learning outcomes for students (Erikson & Erikson, 2019). While learning outcomes can be useful, they have, as Hussey and Smith (2002) pointedly state, "been misappropriated for managerial purposes." This "has led to their distortion to the point that they are presently ill-conceived and incapable of doing what is claimed for them." As a result, learning outcomes, Hussey and Smith add, "are in danger of becoming little more than spurious devices to facilitate auditing at the expense of the educational process" (p. 222). Although learning outcomes in higher education may have originally been seen as a tool to inform the design, delivery, and assessment of curriculum (Caspersen et al., 2017), the primary impetus for learning outcomes has shifted toward assessment (e.g., Zlatkin-Troitschanskaia et al., 2016).

Multiple authors have addressed the tension between the design of curriculum and its assessment in regard to standardized learning outcomes (e.g., Allan, 1996; Havnes & Prøitz, 2016; Hussey & Smith, 2002; Scott, 2011). This tension includes the difficult balance between generalizable and discipline-specific learning outcomes and the almost impossible task of assessing learning outcomes that are defined without adequate specificity (Erikson & Erikson, 2019; Hussey & Smith, 2002; Scott, 2011). Amid these debates, discussions of learning outcomes have become increasingly disconnected from the needs of the primary stakeholders of higher education: students. Although some may claim that learning outcomes "are designed to give a clear indication of the learning destiny" to students (Scott, 2011, p. 1), learning outcomes are often written in stilted and standardized language that makes them too cumbersome for teachers to use for curriculum design purposes and too abstract or too discipline specific to seem relevant for students.

Conceptually, the relationship between learning outcomes and curriculum design seems natural. A core concept of experience design—in this case, the design of learning experiences—is the need to design experiences with clear intended outcomes in mind (Rossman & Duerden, 2019). Another key tenet of experience design is the recognition that all experiences are co-created (Duerden et al., 2015); in other words, experiences result from the interaction between individuals and orchestrated experience elements, an interaction that produces subjective reactions within participating individuals (Duerden et al., 2015; Rossman & Duerden, 2019). The co-creative nature of experiences means that intended outcomes are most motivating when they hold relevance for both the provider and the participant. The articulation and application of learning outcomes in higher education appears to have become heavily weighted away from student participants and toward providers, especially those more removed from the classroom, such as university administrators and accreditation organizations.

Transformative Learning Outcomes

A core proposal of this article is the need to shift the emphasis of learning outcomes from assessment to design. This is not to imply that assessment of learning outcomes is unimportant but to acknowledge that assessment has dominated the dialogue around learning outcomes. This article focuses on the implications of transformative learning outcomes (TLOs) for curriculum design. The *assessment* itself of TLOs is an important topic that deserves additional consideration, which is beyond this article's scope.

An extensive literature exists on the topics of transformative experiences (e.g., Heddy & Pugh, 2015; Pugh, 2011) and transformative learning (Mezirow, 1978). While the primary focus of this literature is on the process of transformation, our article focuses on articulating the endpoint of transformation in educational contexts. The work of Mezirow, Heddy, Pugh, and others is integrally linked to the topic we are addressing, but we do not focus specifically on those conversations within this article.

Defining Transformative Learning Outcomes

Mezirow (1991) described transformative learning as the process through which individuals confront and process "limited, distorted, and arbitrarily selective modes of perception and cognition through reflection on assumptions that formerly have been accepted uncritically" (p. 2). He articulated a 10-step process of transformative learning that begins with "a disorienting dilemma" and ends with "a reintegration into one's life on the basis of conditions dictated by one's new perspective" (Mezirow, 2000, p. 169). We also draw upon Pugh's (2002, 2011) conceptualization of transformative learning experiences, namely those that lead to future motivated use of the content, expanded perceptions, and an enhanced experiential value of future experiences. Although some scholars who are focused on transformative learning, especially those grounded in Mezirow's work, might refer to transformative learning outcomes in their scholarship, they do so without undertaking the necessary efforts to adequately define the concept (e.g., Lassahn, 2015). The primary exception to this claim is the work of Hoggan (2016a; 2016b).

In reviewing the transformative learning theory literature, Hoggan (2016a; 2016b) identified and analyzed 206 articles about transformative learning that noted the learning outcomes assessed in their studies. Hoggan attempted to develop more explicit boundaries around transformative learning theory in response to critics who argue that any type of learning could technically be referred to as transformative. Hoggan (2016b) proposed the following definition: "*Transformative learning* refers to processes that result in significant and irreversible changes in the way a person experiences, conceptualizes, and interacts with the world" (p. 71). Hoggan's work represents a helpful post hoc way to think about potential categories of transformative learning outcomes, but its focus on the transformations that a student experiences because of learning experiences—independent of course learning outcomes—overlooks the role that TLOs might play in designing learning experiences that will result in significant and irreversible changes in students' lives. Transformative learning outcomes must describe transformations that students can easily connect to their life domains and that give students the language they can use to identify and articulate internal transformations to themselves and others.

Building upon Hoggan's work, we define transformative learning outcomes (TLOs) as *learning outcomes that articulate habits of mind or ways of being that students will develop because of a learning experience or sequence of learning experiences*. Transformative learning outcomes focus on describing ways in which elements of a student's identity will develop rather than what students will know or be able to do because of taking a course. While Mezirow's (2000) theory describes a process resulting in changes in perspective or habits of mind, we propose that TLOs should aspirationally push beyond attitudinal change to instead target identity development. Erikson (1959, 1963) proposed identity formation as the key developmental task of adolescence. Most contemporary researchers now agree that identity development is an active process throughout adulthood (Fadjukoff & Kroger, 2016), which is why we propose that TLOs should focus on identity development, on helping students not only learn content but also continue to create their identities. Transformative learning outcomes can direct instructors' and students' attention to aspirational outcomes that are relevant beyond the boundaries of a course's discipline. To be considered a TLO, as opposed to a traditional learning outcome, an outcome must meet two requirements:

1. Targets specific aspects of a student's identity that the course will develop.
2. Must be perceived by the student as having clear connections to multiple life domains (e.g., educational, professional, civic, personal).

Inherent in these two requirements is the recognition that TLOs require collaborative co-creation between instructors and students. A TLO must be perceived as such by both parties.

Transformative learning outcomes allow faculty to articulate who they want their students to become because of interacting with course content and learning activities. These aspirational outcomes are about more than achieving knowledge or competency goals; rather, they focus on how the application of achieved knowledge and competencies will influence students' identity development. Transformative learning outcomes are most likely to emerge within the overlap between the instructor's discipline and students' educational, professional, civic, and personal aspirations. Developing TLOs requires instructors to step back from the content and skills of their discipline to consider and articulate potential TLOs for their courses. Instructors should consider how their disciplinary expertise might help students develop their identities in ways that would allow them to more successfully and proactively navigate the situations and challenges they are likely to encounter in their lives, to proactively engage with the wicked problems (Rittel & Webber, 1973) they will face in the future. Unlike traditional learning outcomes, then, TLOs are not tethered to disciplinary competencies but are anchored in the broader habits of mind and ways of being that connect disciplines to one another. Mezirow (2000) defined habits of mind as "a set of assumptions—broad, generalized, orienting predispositions that act as a filter for interpreting the meaning of experience" (p. 17). In

their explicit focus on habits of mind and ways of being, TLOs need to articulate targeted development in terms of identity elements (Waterman, 1984) that students can deliberately acquire and that they can use to describe who they have become because of the educational experience. When articulating TLOs, educators should focus on malleable and acquirable identity elements, such as empathy, as opposed to more stable, trait-like elements, such as extroversion or introversion (e.g., Big Five; John & Srivastava, 1999).

Transformative learning outcomes must articulate a habit of mind and way of being that students are able to easily connect to their educational, professional, civic, or personal spheres of experience. In other words, the value of TLOs should be easily discernable to students because they can straightforwardly connect TLOs to other areas of their lives. Furthermore, TLO relevance increases when students can perceive the connection between the TLO and multiple spheres of experience—the educational, professional, civic, *and* personal situations that students encounter in their present and future lives. Accordingly, instructors should strive to craft TLOs that naturally transfer to as many, if not all four of these domains, as possible.

Potential Benefits of Transformative Learning Outcomes

An immediate benefit of TLOs is the ease with which they can be adopted in the common vernacular of a classroom community. Students are much more likely to embrace TLOs if they can recognize their relevance to their educational, professional, civic, and personal experiences and aspirations. Transformative learning outcomes are much more likely to become a central feature of a course's vernacular than traditional learning outcomes because they lend themselves more readily to casual conversation, formal and informal reflection, and learning activities. In other words, professors and students are more likely to talk about TLOs than traditional learning outcomes. Consequently, students are more likely to use TLOs to frame the meaningful and transformative experiences that an educational experience provides; TLOs help students see the impact of a course not simply in terms of learning new material or developing new competencies but as a process of becoming different types of people—the types of people who can operate confidently in a variety of situations. By articulating how a course will assist students in the continued formation of their identities, TLOs help students see the connections between the specific educational context of the course and external educational, professional, civic, and personal contexts.

Transformative learning outcomes facilitate transference not necessarily by helping students anticipate the disciplinary-specific skills that will be useful in a future situation but by helping students achieve a transformed identity that enables them to imagine themselves successfully navigating a wide variety of personal, educational, civic, and professional situations. For example, such a transference from classroom experience to real-world applicability could look something like the following: "Because my education has helped me become more creative, I know that I will be a better speech pathologist. I know that I will encounter problems as a speech pathologist that I could not have anticipated, and being a creative person will allow me to come up with a solution by combining my knowledge and competencies in unexpected and new ways."

Transformative Learning Outcomes and Learning Experience Design

Because TLOs provide an end destination for educational experiences, they offer guidance to instructors in terms of the types of content and experiences from their discipline that they want students to engage with to reach the TLOs. Rather than beginning the course design process by reviewing and selecting disciplinary content (Allen & Tanner, 2007), instructors could use TLOs to filter the content most aligned with these outcomes. Disciplines are, therefore, reconceptualized as repositories of potential strategies for how to enact TLOs. The question instructors ask themselves as they design their course shifts from "What do I want my students to learn about my discipline?" to "How can I employ strategies used in my discipline to help students experience the course's TLOs?"

To fully engage in transformative experiences, participants must expend higher levels of emotional, mental, and even physical energy than they would in a more ordinary experience (Duerden et al., 2018). Participants are more likely to be willing to invest their limited emotional, mental, and physical resources in an experience that is intentionally designed from start to end. An experience, in other words, in which each phase (anticipation, participation, reflection) is designed to lead the participants on an intentional journey to an aspirational endpoint with relevance for both the provider and the participants (Duerden et al., 2015). The endpoint of an experience, as perceived by the participants, determines whether the path that leads to the endpoint is transformative. If the targeted destination of an experience journey is transformative and that endpoint has guided the design of the full experience (i.e., anticipation, participation, and reflection phases), we suggest it dramatically increases the likelihood the experience will be perceived as transformative by those who engage in the experience. And helping students perceive an educational experience as transformative should be a primary goal of higher education.

A Transformative Learning Outcomes Case Study

In the first semester of 2020, we, the authors of this article, directed a general education focused, undergraduate study abroad program in London. The program took place at a residential center in the Queensway/Notting Hill area of London. Students slept, ate, and participated in classes at the center. The program consisted of 40 students representing seven different colleges from the sponsoring institution. This semester-long program had traditionally consisted of four separate three-credit courses, each of which had been taught independently by one of the two assigned faculty directors. We made the decision early in the design of our curriculum to combine all four courses into one cohesive 12-credit course. In merging the four courses, we recognized the need to craft learning outcomes that transcended our disciplines and that also articulated what we wanted students to be able to say about their learning experience in London when the program ended. We were especially cognizant of the fact that transferring learning outcomes from a study abroad experience to other contexts can prove more difficult than doing so in a normal, on-campus class because of what are typically more pronounced differences between the study abroad context and students' at-home contexts (Allison, 2005; Allison et al., 2012).

We wanted our students to be able to say that they had become more curious and creative individuals because of their time in our London study abroad program, so we decided to make these two habits of mind/ways of being—curiosity and creativity—our program's TLOs. These learning outcomes were very different from the types of learning outcomes that we had chosen in previous courses, but we were excited about the curriculum design possibilities that the learning outcomes of curiosity and creativity would open to us.

As we designed our integrated course we deliberately selected content, created assignments, and planned site visits that would connect students to our TLOs of curiosity and creativity. We had to think carefully about how we used each of our disciplines to provide students with strategies for practicing curiosity and creativity. Each day followed a three-phase experience model of anticipating, participating, and reflecting (Clawson & Knetsch, 1966). In the morning the students would gather for a 1–2 hour anticipation session where we would introduce content and practice competencies related to the day's learning objectives. Students would then be given a "city lab" assignment for the participation phase, which involved applying the content learned during the morning's participation session. After completing their city lab, students would return to the residential center for a pre-dinner reflection session to discuss their takeaways from the city lab experience.

For example, Mat Duerden, a full professor in a Department of Experience Design and Management, designed the anticipation, participation, and reflection phases of one of the program days to help students develop competency with design thinking and experience design strategies they would need to use on the program's culminating group project and which also connected to the programs TLOs. For the morning anticipation session Mat taught students how develop experience maps and then assigned students to work in pairs to develop customized British Museum experience maps for each other. The students were intentionally assigned to pairs with one student who reported looking forward to visiting the British Museum and one student who did not. Developing a customized experience map required students to become curious about both their partner and the British Museum as they engaged in the empathize phase of the design thinking process. They had to practice curiosity to understand someone with a different perspective from their own and then use what they learned to creatively design a customized British Museum experience that would delight their partner. As we debriefed this experience during the day's reflection session, students, especially those with less interest in museum visits in general, expressed surprise about how having a customized museum experience designed just for them made their visit to the British Museum much more enjoyable than they had anticipated. Thus over the course of 1 day, students learned strategies of how to be curious and creative, applied those strategies to design an experience for someone else, and were able to discuss the impacts of what they had designed for each other.

The program's culminating project required students to works in groups of 5–6 to design and deliver a 2-hour London-based experience at the end of the semester for the other students in the program. Their designed London experience served as the students' sandbox to develop curiosity and creativity through the application of course content and competencies. This final assignment provided the filter by which course content and assignments were included in the program. Content, assignments, and site visits were included that connected to the TLOs and had relevancy for this final project.

Ultimately, we wanted to do more than simply design learning activities and site visits that helped students become more curious and creative—we wanted them to be self-reflective of the ways in which they were becoming more curious and creative. We wanted the TLOs to provide students with terminology that they could use to tell a story about the transformative nature of the experiences that the curriculum made possible. To assess the effectiveness of our efforts we also designed an institutional review board (IRB)-approved research study focused on understanding the impact of the

program on participating students. Informed consent was obtained from all 40 students at the beginning of the program after they had been provided a full description of the research project and the details of their potential involvement. The study involved collecting and analyzing weekly and visiting specific quantitative questionnaires, open response questions, and all student written assignments. For this case study, we will only focus on insights gained from the analysis of specific writing assignment responses. The full study will be the focus of standalone research articles.

Prior to arriving in London, we asked students to write down what they understood *curiosity* and *creativity* to mean and to provide examples of how they expressed curiosity and creativity in their lives. We asked students to complete a similar assignment at the end of the program and invited them to refer to their pre-program understandings of curiosity and creativity to measure changes in their understanding of our TLOs over time. One student wrote: "Before going to London and learning what it means and feels like to be curious, I had just thought that to be curious meant that you were doing something adventurous. As I am not typically the 'adventurous' type, I thought that I could not be a curious person." The study abroad curriculum that we designed helped this student to think differently about curiosity. By the end of the program, she understood curiosity to be the "willingness to explore a spark of interest even though the outcome could be uncertain." This student's new curious habit of mind shaped not only her experiences in London but also her experiences after returning home prematurely because of the pandemic. She writes: "I am so grateful that I was able to learn curiosity while in London. Now I can take it back home and continue my curiosity here as well as wherever I go. I have been using my curiosity at home. I have been curious about different bread recipes and making my own. This has been a lot of trial and error, which I typically wouldn't have liked—(I'm a perfectionist) but it has been such a fun project for me and my curiosity." This student's end-of-the-program reflection demonstrates the success of the TLO of curiosity in meeting the two requirements of a TLO. First, this student felt that the curriculum had helped her develop a specific aspect of her identity; she had become a more curious person because of the study abroad program. This student also clearly perceived that the TLO of curiosity connected her curricular experiences to her personal ones; she saw trying new bread recipes—something we did not discuss or do in London—as an extension of the study abroad program rather than as a separate activity.

Both features of successful TLOs were even more pronounced in our students' final reflections about the TLO of creativity. Almost every student began their reflection with some version of this student's thoughts about creativity: "For as long as I can remember, I've always told myself that I'm not very creative. I would associate the word *creative* with being artistic.... This led me to making the assumption that I didn't have much creativity in me." But as this student and her classmates learned from the course's learning activities to think of creativity as, in the words of another student, "how you solve a difficult problem or how you make the most out of what is available," they were able to take on creativity as an identity. Another student, who had "always thought that in order to be creative you had to be an amazing artist or dancer or musician," declared at the end of the program: "I now consider myself a creative person, and that in and of itself makes me consider myself changed." As people who had experienced a transformation of their identity, who now thought of themselves as creative or more creative than they had been before, they were able to connect their educational experiences in London to their post-study abroad lives. In contemplating her future as a special education teacher, one student noted how critical creativity would be to her professional success: "It's a job that requires specific attention to each individual's needs, and I know I will have to become creative in how I care for each student I interact with." As our students' observations suggest, designing our curriculum around TLOs played a role in the transformative and transferable nature of their educational experience in London.

Discussion

We add our voice to those who have called into question the role of learning outcomes in higher education (e.g., Hussey & Smith, 2002; Scott, 2011; Zlatkin-Troitschanskaia et al., 2016). Learning experiences are inherently co-created and have relevance for multiple stakeholders, including students, instructors, administrators, accreditors, legislators, and parents. With so many parties interested in higher education learning experiences it is not surprising that learning outcomes, as they are most commonly articulated and implemented, do not always serve all involved parties equally. It is also not surprising that learning outcomes appear to have pulled toward assessment and away from student-centric design because the most powerful stakeholders—administrators, legislators, and accreditors—need to be able to audit and articulate the return on investment of higher education.

Despite these realities, students struggle to learn when they feel disconnected from the curriculum. Learning experiences fundamentally cannot happen if students do not engage with curriculum, and a prerequisite of engagement is the allocation of their attention (Rossman & Duerden, 2019). In other words, students must choose to give their attention to what they are being taught, which is difficult to do if they cannot

connect with the stated curricular outcomes or if they feel underwhelmed by what they are expected to learn (Kumpas-Lenk et al., 2018). To this point, in this article we have presented a justification and guidelines for articulating and implementing TLOs. We believe and have personally experienced in our teaching that students gravitate toward and willingly adopt learning outcomes they perceive as having relevance for their educational, professional, civic, and personal lives. Research findings also support the connection between student engagement and students' ability to make personal connections with what they are learning (Walkington, 2013). Transformative learning outcomes allow instructors to communicate to students how a course will provide them with new content and competencies and, more importantly, how the course will transform who they are as individuals. Transformative learning outcomes shift how students articulate the impact of their education from "I learned" to "I became."

Implications for Research

We recognize that, in issuing a call for educators to design curriculum around TLOs, future work is needed to address the boundaries and assessment of TLOs. Hoggan (2016a, 2016b) has led this area of study, and the application of his typology deserves further attention. Additionally, increased attention needs to be paid to the degree to which TLOs are perceived as such by students, regardless of adherence to any preset typology. Further work is needed to develop theoretically sound and professionally pragmatic approaches to the assessment of TLOs.

Implications for Practice

We call upon educators to seriously evaluate the relevance of their current learning outcomes for their students. Do their learning outcomes easily transfer to domains beyond their disciplines, especially domains with relevance for their students? Furthermore, we encourage educators to consider crafting learning outcomes that meet the two criteria for TLO status proposed earlier in this article:

1. Targets specific aspects of a student's identity the course will develop.
2. Must be perceived by the student as having clear connections to multiple life domains (e.g., educational, professional, civic, personal).

As educators begin to draft such TLOs, we also recommend they test them with their students to make sure that both parties agree on the potentially transformative nature of the stated outcomes. Once acceptable TLOs have been developed, instructors need to use them to determine the disciplinary content and experiential learning activities that will allow students to practice the TLOs in situations that approximate the real world as closely as possible. In a companion piece to this article, we suggest how experiential learning is a prime pedagogical approach for the implementation of TLOs to help students develop experiential learning competencies (Rowan & Duerden, In Review).

Conclusion

In a world where limitless information is available, universities will quickly become irrelevant if their main pedagogical purpose is to be a purveyor of knowledge. In the same way the economy has undergone a shift from commodities to goods to services to experiences, it appears the next shift will be to an economy driven by guided transformations (Pine & Gilmore, 2019). Higher education should fully embrace a role as a primary player in this emerging economy. As educators in higher education, we should be articulating transformative destinations for our students and then providing intentionally designed learning experiences for them to reach those destinations. The starting point for this process is the articulation of transformative learning outcomes with professional, educational, civic, and personal relevance for our students.

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