

Redefining Experiential Learning

How Universities Can Deliver
an Integrated Curriculum



MINERVA®

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Today's higher education landscape is characterized by rising tuition costs, declining student retention, and a demand for more relevance to students' lives. In this context, experiential learning has emerged as a compelling way for universities to align their curricula more closely with student and employer needs.

Amidst this growing interest, the implementation of high quality experiential learning remains inconsistent. **This white paper serves as a resource for higher education leaders, offering clarity on best practices, solutions to common challenges, and guidelines to help institutions establish a more systematic integration of experiential learning into university curricula.**

A Framework for Experiential Learning

Much of higher education today involves listening to lectures, trudging through readings, and then being tested on the ability to memorize and regurgitate information. Scientific insights into learning emphasize that passive instructional methods do not foster deep comprehension, yet they remain the status quo at most universities.

Compare this instead to a version of education that engages students with inspiring experiences and consistently challenges them to apply concepts learned in class to other aspects of their lives. Rather than a slide presentation introducing cognitive biases, a psychology course might gather in the evening to observe the moonrise. The instructor could illustrate how visual cues in the environment influence perception with an optical illusion: the moon appears larger on the horizon than it does higher in the sky.

During class the following week, students could be prompted to apply their understanding of cognitive biases by analyzing advertisements for products in the campus grocery store. They could be asked to examine how visual cues, such as graphics, promotional language, and pricing influence their buying decisions. This constant interplay between academic concepts and the students' lived experience leads to a deeper comprehension of the psychology of bias, and its relevance beyond the classroom.

Living is not separate from learning. As such, learning should not be separated from life. **Experiential learning is a teaching method which integrates life experience with academic content to enable deeper comprehension of concepts and improved mastery of skills.** With experiential learning, students engage directly in their studies



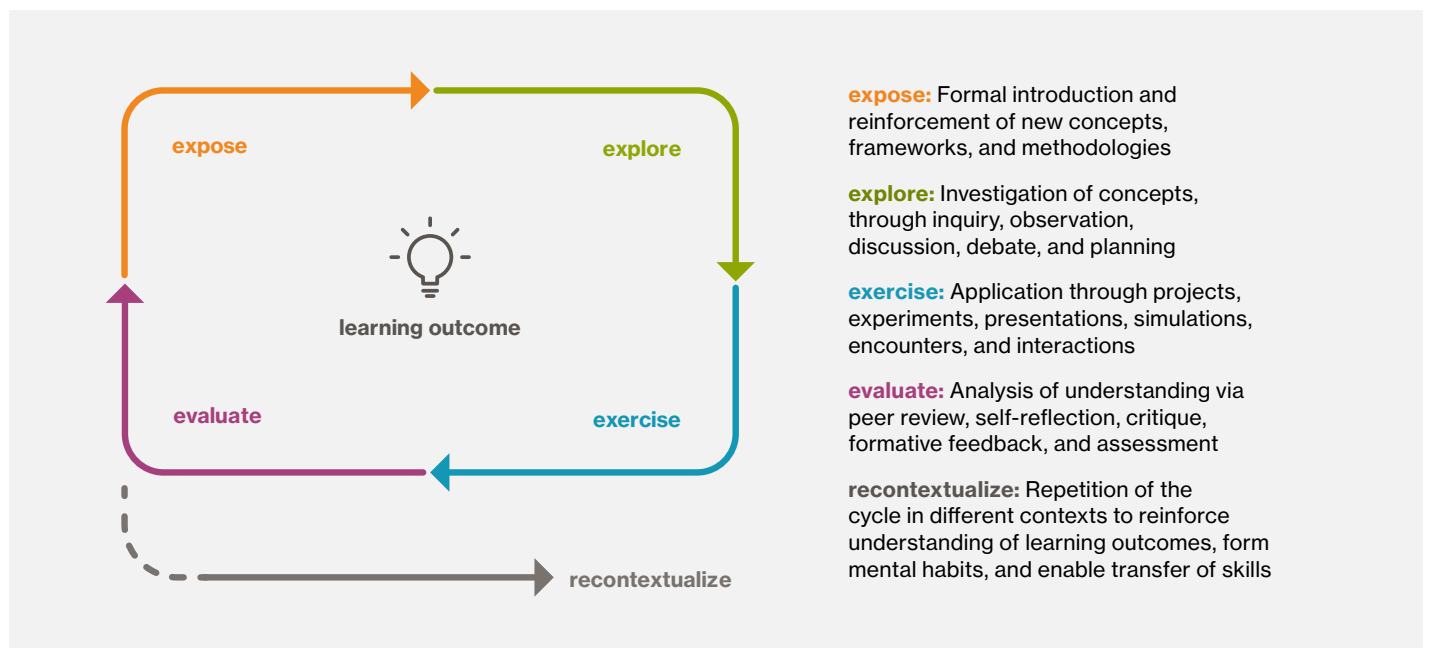
“A psychology course might gather in the evening to observe the moonrise. The instructor could illustrate how [...] the moon appears larger on the horizon than it does higher in the sky. During class the following week, students could be prompted to **apply their understanding of cognitive biases** by analyzing advertisements for products in the campus grocery store.”

through hands-on activities and immersion in authentic situations. More than merely “learning by doing”, experiential learning requires systematic reflection on lived experiences and iterative experimentation in new contexts. Knowledge is always applied, reflected upon, and recontextualized.

In this non-linear approach, learning is organized in cycles. Inspired by the work of David A. Kolb, and informed by the science of learning, we have defined four distinct stages in each cycle. Each stage corresponds to different types of activities, mindsets and instructional approaches.

The common thread throughout each cycle is a specific and measurable learning outcome – a clear statement outlining the concepts, frameworks, methods, or abilities that students should demonstrate during each cycle, and master after completing multiple cycles. To begin, students are **exposed** to a learning outcome through formal instruction. This introduction might take the shape of readings, a brief lecture, or creative opening activity. Students then **explore** this same learning outcome through deeper inquiry, observation, or discussion with peers. Next, students **exercise** their understanding by applying it in projects, experiments, simulations, or other experiential

Stages of the Learning Cycle



activities. To complete the cycle, students **evaluate** their comprehension through self-reflection, peer-review, instructor feedback, or other assessment techniques. Finally, students repeat the cycle with the same learning outcome, but **recontextualized** to new situations, disciplines, or aspects of their lives.

To illustrate this cycle using the same psychology course example, imagine that the instructor intends to teach students bias mitigation strategies as a learning outcome. Students are **exposed** to the strategies through a brief presentation. They then break into groups to **explore** specific tactics, and develop plans for mitigating their respective biases. Students then **exercise** their mitigation strategies in a simulation where they are tasked with making

an unbiased hiring decision for a hypothetical business. To further contextualize the learning outcome, they visit a hiring agency and learn directly from recruiters about how they utilize mitigation strategies in their work. Finally, students **evaluate** their understanding of bias mitigation through a written reflection, which they submit to the instructor for feedback.

Ideally, students would then **recontextualize** these strategies by being exposed to bias mitigation in other courses and scenarios, each time deepening their understanding of the learning outcome. For instance, mitigating biases in history class, while interpreting firsthand accounts of historic events, or exercising bias mitigation skills in an argument with a friend by practicing perspective taking.



The Growing Embrace of Experiential Learning in Higher Education

The significance of exercising knowledge and integrating life experience into learning is not a recent invention. This approach is common in alternative K–12 methods like Montessori or Waldorf education, which aim to spark children’s interest and nurture self-directed learning. Beyond K–12, vocational programs almost always require hands-on experience. It is difficult to imagine automotive engineers graduating with only an understanding of mechanical theory and no direct experience fixing an engine. Similarly, nursing, medical, culinary arts, architecture, and teaching degrees all require some amount of field experience. In all cases, experiential activities are valued for nurturing deeper understanding and preparing learners to put their skills into practice from the first day on the job.

Despite the widespread acknowledgment of its benefits, the field of experiential learning has struggled to gain legitimacy in higher education beyond vocational fields. In liberal arts education especially, experiential activities are often seen as superfluous. When the value of practical experience is recognized, it is often considered a nice addition to the academic program, and is typically confined to students’ personal time or summer breaks, rather than integrated into the core curriculum.

Yet, in recent years, there has been a noticeable surge in universities including experiential learning in their programming. Some institutions are actively differentiating themselves by promoting opportunities for students to learn in various real-world settings. This growing interest has also led to confusion regarding the terminology used to describe different types of experiential learning, and more work needs to be done to create a common language across higher education.

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The most frequent experiential learning categories mentioned by institutions include collaborative learning, problem-based learning, project-based learning, service learning, and place-based learning.

A nationwide [survey in the U.S.](#) [shows](#) that despite the dominance of traditional lectures, there is a growing trend in faculty utilizing various experiential learning methods, as depicted in the table below.

Common Experiential Learning Categories

Teaching Method	Description	Examples	Percentage of faculty using these approaches in their classes
Collaborative learning	Students learn from interacting with peers	e.g. team-based games, roleplay, social-emotional activities	85%
Problem-based learning	Students learn from solving a real world problem	e.g. simulations, case studies, hackathons	62%
Project-based learning	Students learn from building a real world project	e.g. internships, design challenges, capstone projects	78%
Service learning	Students learn from contributing to their local communities	e.g. advocacy, campaigning, internships, teaching, volunteering	34%
Place-based learning	Students learn from immersing in specific locations or cultures	e.g. site visits, office visits, study abroad, outdoor education	27%

Adapted from Wurdinger S. and Allison P. (2017), [Faculty Perceptions and Use of Experiential Learning In Higher Education](#), [Journal of E-Learning and Knowledge Society](#)

The rising adoption of experiential learning in higher education is driven by the growing interest in High-Impact Practices (HIPs), which are evidence-based methods for improving learning and engagement, especially for traditionally underserved student populations. Experiential learning is a crucial component of HIPs, with research supporting its effectiveness in enhancing outcomes, retention rates, and employability.

Enhancing Outcomes

Experiential learning improves student outcomes through active participation and the application of knowledge in new situations. A comprehensive meta-analysis

demonstrates a substantial impact on learning outcomes, indicating nearly a half-standard deviation improvement, using experiential practices compared to traditional methods.

Improving Retention Rates

Experiential learning boosts retention rates by sparking interest and motivation in students, demonstrating the material's relevance to their personal goals, and fostering social connections among peers. A study comparing students in the same business program reveals a notable 18% increase in retention after three terms for those exposed to experiential activities, such as team-building exercises and problem-based activities.

Increasing Employability

Experiential learning is recognized for improving workforce transitions and imparting durable skills with relevance beyond university. The latest AAC&U survey shows that employers have a distinct preference for graduates with experiential learning on their resumes. Specifically, 70% are more inclined to hire students with practical experience, internships, or leadership roles. Additionally, over 90% consider interdisciplinary study and the ability to solve real-life problems in college as “very important” or “somewhat important” for prospective graduates.



The Importance of Integrated Experiential Learning

Despite the increasing adoption of experiential learning in higher education, there is confusion about methods and best practices. The most frequently cited issues are the lack of alignment of experiences with clear learning outcomes and the pervasive dearth of proper reflection following experiences.

Consider the typical student internship. While more internships are now taken for credit, the prevailing practice involves students completing a minimum number of work hours and submitting a final report. There is no time designated for students to articulate the skills they aim to develop, engage in

practical application of those skills, reflect on their performance, or contemplate future improvements. Essentially, this is akin to instructing students to go through the exercise stage without a clear exposure or exploration of the specific skills they are meant to practice. It provides an experience, but falls short of intentionally promoting true learning. These issues are far from new. Since John Dewey theorized about experiential learning in the early 1900s, the field has grappled with the sticky misconception that any activity conducted “outside of the classroom” – whether a walk in the park, an internship, or a hackathon – can be called experiential learning.

Experiential learning is not about changing the physical location of classes; it is about the **cognitive cycle students move through** to transform life experiences into meaningful knowledge.

Taking students beyond the classroom walls certainly can represent an exciting and memorable moment in their educational journeys,

classes; it is about the cognitive cycle students move through to transform life experiences into meaningful knowledge. As the psychologists Halpern and Hakel assert in [their work on the science of learning](#), “experience alone is a poor teacher.”

For experiential learning to be impactful in higher education, **integration into core curricula is key.**

but this alone does not necessarily lead to learning. It is crucial for practitioners to finally recognize that experiential learning is not about changing the physical location of

For experiential learning to be impactful in higher education, integration into core curricula is key. Integration ensures that activities align with clear learning outcomes, and it provides dedicated time for reflection on experiences. In addition, it helps maximize opportunities for skill transfer from one context to another – a hallmark of deep understanding and mastery, and an objective that all educators should strive for.



Challenges and Solutions to the Integrated Approach

When integrating experiential learning into core curricula, higher education institutions can face challenges rooted in the entrenched structure of the current educational system, including instructors' default to passive learning and institutions incentivizing scholarly work over quality teaching. These challenges fall into logistical, pedagogical, and perceptual categories.

Logistical Challenges

According to another [nationwide survey in the U.S.](#), when faculty were asked about obstacles to integrating experiential learning into their courses, 61% pointed to insufficient class time, 28% cited a lack of funds for off-campus activities, and 17% highlighted challenges with assessment procedures. Other significant concerns relate to large class sizes, and the inability to cover all topics in the curriculum if experiential activities are included. Indeed, experiential learning generally involves an iterative process of trial and error, demanding more time than traditional lectures, but the payoff is worth it.

Addressing logistical challenges entails supporting faculty and designing experiential activities that are easily accomplished within constraints. An effective approach we have used with several partners

involves incorporating at least one experiential assignment in every course. These assignments require students to apply course learning outcomes to real-life scenarios, on their own time, then bring their insights back into class. For example, in an economics course, students might be required to observe a baseball game and reflect on how game theory helps coaches and players identify optimal strategies. An experiential assignment can easily replace an existing passive one with little additional effort from the instructor.

Pedagogical Challenges

In addition to logistical hurdles, integrating experiential activities into core curricula poses pedagogical challenges in both design and facilitation.

In terms of design, professors accustomed to preparing lectures may be unaccustomed to the practice of generating ideas that connect learning outcomes to real-life situations. For example, when attempting to plan an experiential activity for a politics course, a typical lecturer might simply ask a local politician to speak in class. However, this simply replaces one lecturer for another. Considering more truly experiential approaches can be both intellectually stimulating and provide much richer opportunities

for students to engage with concepts. Instead of a guest speaker, sharing a meal with a family from a different socioeconomic background

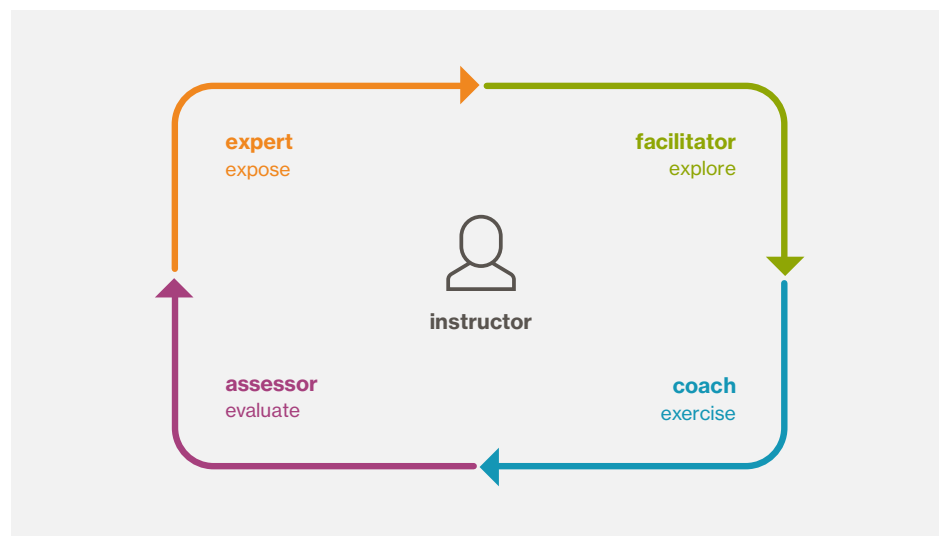
Another pedagogical challenge arises during the facilitation of experiential activities. The origin of the word “professor” lies in the latin term *profess* meaning “to declare publicly.” However, with experiential learning, professors need to embrace being more dynamic in their roles and become practiced in shifting among different modes of instruction. Beyond subject-matter experts, professors also need to be facilitators, coaches, and evaluators. The diagram below illustrates how the instructor’s role may need to shift during different stages of the learning cycle.

Professors need to embrace being more dynamic in their roles and become practiced in shifting among different modes of instruction.

could help students build empathy for distinct political views, or observing a beehive might illuminate the efficiency of non-democratic governance.

To address this pedagogical shift, it’s essential to invest in well-structured training programs. With our partners at Escuela Bancaria y Comercial

Instructors’ Roles in the Learning Cycle



Adapted from the [Kolb Educator Role Profile](#)

(EBC), we rolled out a “train the trainer” model, wherein a core group of faculty and extracurricular staff were trained on the design and facilitation of experiential activities. This core team now plays a crucial role in disseminating, promoting, and advocating for the adoption of the new pedagogical practices across the university’s 13 campuses.

pivotal role in boosting the university’s competitiveness and uniqueness. A clear example is at the University of Miami, where the president had a bold vision for the future of the institution. At the core of this vision was creating a new interdisciplinary program with experiential learning as a distinctive feature. This resulted in the implementation of eight experiential challenge courses, becoming the program’s flagships. These courses fostered collaboration among faculty, communities, and industry partners, ensuring that students not only acquired skills in class, but also applied them in real-world projects guided by industry experts. For example, students applied their innovation and design skills to propose ideas for novel urban development initiatives within the city or in helping a nonprofit provide access to marine sports for children with disabilities. Given the importance of these courses in the long-term strategy of the university as well as in the overall program curriculum, experiential learning gained more recognition as a pedagogical practice.

While logistical, pedagogical, and perceptual challenges can stand in the way of integrating experiential activities into core curricula, institutions can employ various tactics to overcome them. It is crucial, however, to find innovative approaches that are tailored to the specific context of each institution.

Experiential activities are often **not taken seriously**, or viewed as fun add-on activities that lack rigor.

Perceptual Challenges

Perceptual challenges often have to do with the fact that experiential activities are often not taken seriously, or viewed as fun add-on activities that lack rigor. This is tied to the ongoing prioritization of research over instruction, and is further compounded by a broad and longstanding perception that intellectual pursuits, rather than practical experience, hold greater prestige.

Addressing these perceptual challenges requires decisive leadership, the mandatory inclusion of experiential learning in the curriculum, and effective communication emphasizing its

Guidelines for the Systematic Integration of Experiential Learning in Curricula

Over the past decade, Minerva Project has helped build integrated experiential learning programs at multiple universities around the world, beginning with its flagship partner Minerva University. Our overarching strategy for systematic integration involves recognizing that there is a wealth of experiences that already exists in a student's life, then working to establish the necessary infrastructure for our partners to effectively tap into these experiences, converting them into impactful learning opportunities. Following are three ways universities can integrate experiential activities with academics and other institutional functions.

1

Create a Shared Language of Learning Outcomes

The current norm at universities is that each academic department and instructor has dominion over the courses they teach and the respective set of learning outcomes. Beyond academics, other functions within the university rarely articulate learning objectives for activities they offer. This approach minimizes

opportunities to provide a more unified learning journey, where each university function represents a context for students to practice their knowledge and skills. For instance, in residential life, students might practice communication, social-emotional skills, or conflict resolution. Within career services, students can practice self-awareness, professionalism, or effective writing. The financial aid office could enable students to practice planning, negotiation, and project management.

An essential tool we use in our work with partners is a shared set of learning outcomes organized hierarchically, called a learning taxonomy. When the taxonomy is adopted by all students, faculty, staff, and administrators, it enables the systematic integration of lived experiences with academic curricula. This shared language connects each stage of the learning cycle, enabling students to apply their knowledge across a variety of contexts. With a consistent learning taxonomy, teams across the university are able to help students identify, consider, utilize, and reflect on the concepts and skills they are learning in and outside of classes. The taxonomy connects formal instruction with lived

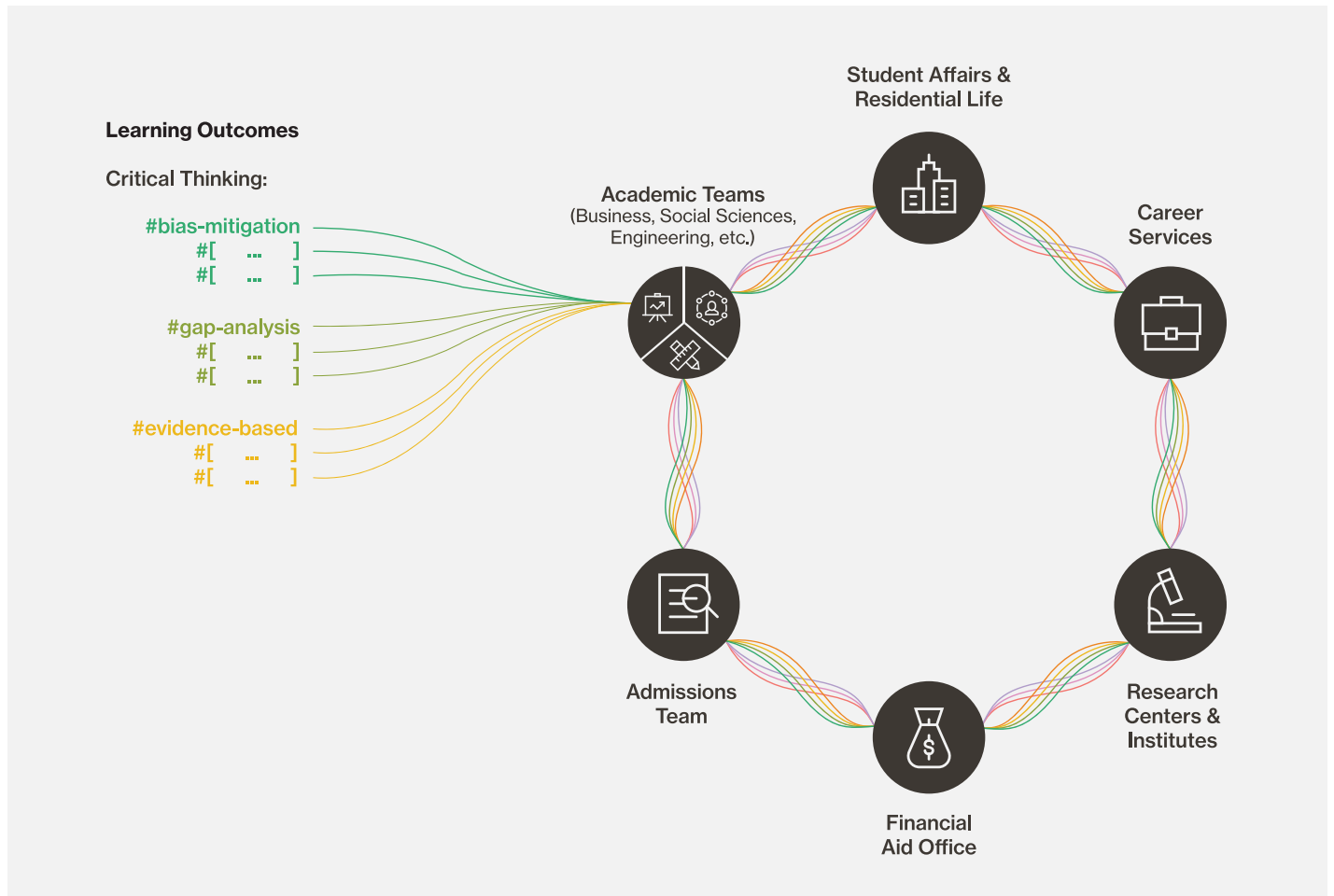
experience, deepening understanding, highlighting the relevance of knowledge, and promoting the ability to transfer skills.

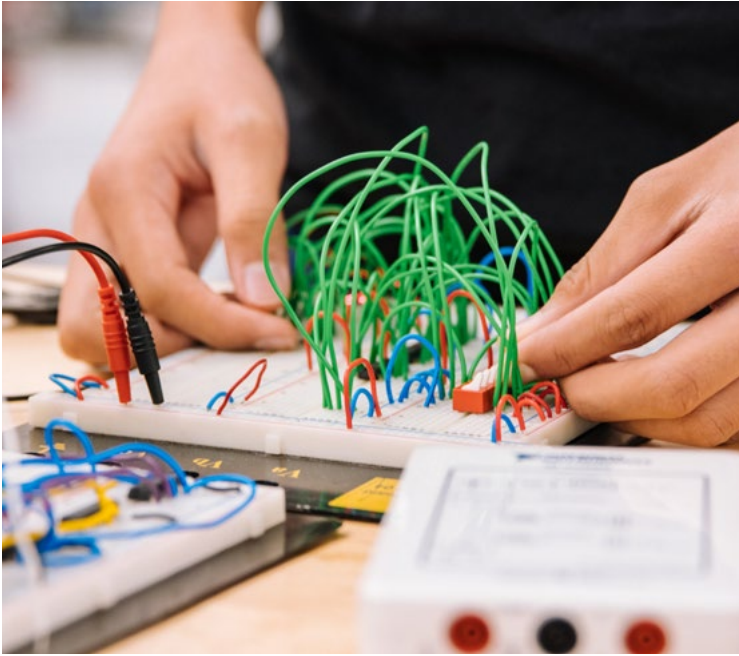
At the highest level of the learning taxonomy are the core competencies an institution seeks to impart in students. These are broken down into specific, measurable learning outcomes. An institution seeking to impart critical thinking, for example, would focus its activities on more granular learning outcomes such

as bias mitigation, evidence-based decision-making, and the use of gap analysis in problem-solving. When the learning taxonomy is adopted across an institution, all of the university teams can work in concert to intentionally teach a common set of outcomes that combine to nurture the higher-order competencies.

For example, students may initially be exposed to the gap analysis learning outcome in a general education course, then have it

Integrated Learning Experiences





beyond the class setting, the student affairs team might also guide students in applying gap analysis to the development of individual plans for personal wellbeing, or team-based proposals for enhancing campus sustainability. The same general education course could connect these activities back to the coursework with a reflection assignment, creating a dynamic interplay between students' classes and their lived experience. This interplay can continue throughout an entire program, with instructors and other university teams continuing to reintroduce learning outcomes from semester-to-semester and year-to-year.

reinforced elsewhere in their educational journey. In other courses, engineering students might be required to use gap analysis for optimizing a manufacturing process, and business students might need to apply it in order to develop a launch strategy for a new product. However,

The key is that a common learning taxonomy provides a shared language that can help unify students' diverse experiences in and outside of academic classes. The learning outcomes become a throughline across the entire educational journey.



“Engineering students might be required to use gap analysis for optimizing a manufacturing process, and business students might need to apply it in order to develop a launch strategy for a new product. However, **beyond the class setting, the student affairs team might also guide students in applying gap analysis** to the development of individual plans for personal wellbeing, or team-based proposals for enhancing campus sustainability.”

2

Empower a Cross-Functional Team of Educators

With a common learning taxonomy in place, the next step is to help teams across the institution coordinate efforts in support of integrated educational experiences. In a typical university setting, faculty rarely communicate across departments, let alone with non-academic teams. Functions like admissions, financial aid, and student affairs are generally perceived as serving social, operational, or informational roles, not educational ones. However, creating opportunities for students to apply their knowledge in various contexts requires not only collaborating across academic disciplines, but also enabling other teams to embrace their potential as educators.

To establish this type of cross-team collaboration within the university, it is important to first identify which

functions need to collaborate, and then to create the necessary structures and incentives for fostering communication among them. Frequently it is the academic, student affairs, residential life, and career services teams which need to collaborate most on integrated learning activities. Depending on the institution, this may involve establishing regular cross-functional meetings, platforms for information sharing, or forming new, fully integrated teams. Many universities are creating Chief Experience Officer (CXO) positions to designate leaders who oversee the entire educational journey, from admissions through alumni services. Whatever the strategy, the key is bringing stakeholders across the university together, creating a culture of collaboration, and shifting mindsets toward a cohesive view of student learning.

Functions like admissions, financial aid, and student affairs are generally perceived as serving social, operational, or informational roles, **not educational ones.**

As mentioned earlier, professors must transition from a singular focus on subject-matter expertise to also serve as facilitators, coaches, and assessors. However, all of these roles do not necessarily need to be played by individual instructors. They can also be distributed among multiple team members, including other faculty, staff, administrators, and even local professionals, who can act as “professors of practice” in support of experiential activities. Imagine a collaborative teaching environment with negotiation as a learning outcome. Initially, a

professor, acting as the **expert**, introduces negotiation best practices in class. Subsequently, students engage in a Model United Nations competition organized by the student affairs team, who serve as **facilitators** and **coaches**. Finally, a panel of judges, comprising professionals from relevant fields, act as **assessors**, giving students feedback on their negotiation skills. While Model UN events centered on negotiation are not uncommon, it is rare to see faculty, staff, and external professionals collaborating to guide students through a learning cycle.

Changing culture, fostering collaboration, and redefining roles can be complex work. However, there are many tactics that can help catalyze institutional transformation. Celebrate colleagues who are leading the change, demonstrate early successes, make time for team-building, and invest in quality training. Building upon existing career and alumni services by creating external alliances extends opportunities for integrated learning beyond the campus and past graduation day. All of these can go a long way toward improving communication and collaboration, and empowering a broader set of stakeholders in the educational process.



3

Reimagine Learning Environments

In addition to broadening the definition of educators, universities need to embrace a wider variety of educational spaces. For more than 100 years, classrooms have been standardized and designed to efficiently disseminate information to large groups through passive learning. Despite research demonstrating the impact of different physical spaces on cognitive processes and interactions, most institutions still favor large, dimly-lit lecture halls with students sitting in rows.

Some more innovative universities have evolved their classrooms to be more conducive to active learning, in response to the learning science. Several Minerva partners, for instance, have intentionally designed new spaces for active engagement;

labs, prototyping areas, and interactive zones are thoughtfully incorporated into their campus designs. Furthermore, in the aftermath of the Covid-19 pandemic, many universities have embraced hybrid learning by combining physical and virtual environments designed to accomplish different educational goals. Building on this momentum, we can envision creating a flexible network of both virtual and physical spaces on and off campus, offering students multiple opportunities to apply their knowledge and experiment with their skills in diverse contexts.

For example, a student might first be exposed to systems theory through a TED Talk by one of the top thought leaders in the field. Then, in an online seminar the same student could explore the topic further through

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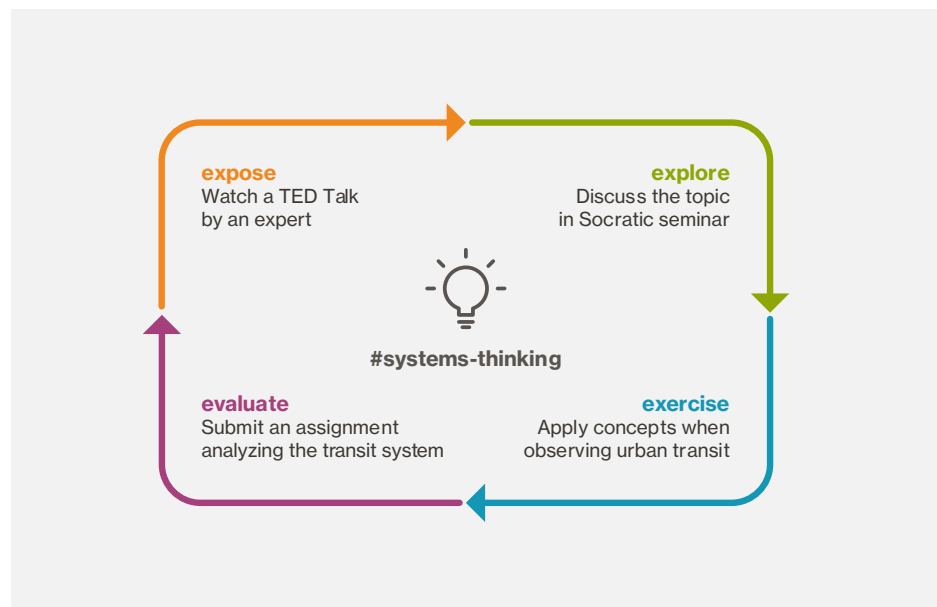


an assignment analyzing the system, and gather in person for an evaluation of their understanding of systems theory in practice.

This example illustrates how universities can extend learning spaces beyond campus environments. Minerva University pioneered a “city as a campus” model, eschewing the built campus entirely. Overall, universities have an opportunity to broaden the definition of what constitutes ideal learning environments. New vocabulary and terminology can be used to reset the expectations of students, staff, and faculty. Instead of centering on discrete classrooms, labs, and lecture halls, learning should be woven into the diverse spaces found in everyday life.

facilitated discussions with their instructor and classmates. After the seminar, the student could venture into the city to observe a complex system in the urban environment, such as the transportation system. Ultimately, the student could submit

Example of a Learning Outcome (#systems-thinking) in the Learning Cycle



Conclusion

In today's higher education landscape, experiential learning is emerging as an impactful pedagogical response to declines in student engagement, retention, employability, and educational outcomes. This exciting development marks a departure from passive learning anchored to static environments. Still, more work is needed to ensure universities effectively implement best practices that foster genuine learning to meet student, employer, and societal needs.

When experiential learning is integrated successfully, there is no longer a focus on what is happening “inside” or “outside” of academic classrooms. Rather, educators engage students in different modes,

mindsets, and contexts throughout a series of learning cycles. Realizing this potential requires a paradigm shift. Systematically integrating experiential learning doesn't necessarily mean extra field trips or overwhelming logistical hassles. Instead, universities should recognize the wealth of experiences already available to students on campus, in cities, and in daily life. In other words, life is composed of diverse opportunities for learning. The key is to build educational infrastructure through shared language, cross-functional teams, and reimagined learning environments. This enables students to connect their lived experiences with learning outcomes, bridging the gap between life and learning, and making learning integral to life itself.

Universities should recognize the wealth of experiences already available to students on campus, in cities, and in daily life. **Life is composed of diverse opportunities for learning.**



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On the Cover: A mirror represents students
reflections on their learning experiences.

Photo by Lisa Fotios,
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