Faculty of Design

2022

Utilising Design Thinking to Reimagine Campus Culture: Learning, engagement, and persistence

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Relating Systems Thinking and Design
2022 Symposium
University of Brighton, Brighton, UK,
October 13-16, 2022

Utilising Design Thinking To Reimagine Campus Culture: Learning, engagement, and persistence

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This presentation shares lessons learned and strategies from an ongoing systemic design process seeking to improve retention, persistence, and a sense of belonging across one liberal arts university campus. The initiative integrates principles and strategies from design thinking (as defined by the Hasso Plattner Institute of Design/ Stanford d.school method), liberatory design, systems thinking, as well as the latest research on retention and belonging in order to transform policies, processes, and practices, build relationships, and shift campus culture. In particular, the paper explores a relational and situated approach to systemic design practice at a small liberal arts campus that is part of a much larger private university system. The case study explores the value of diverse forms of scaling systems change, utilising a lens that has been historically absent from many studies in systemic change. Ten initiatives and a number of strategies for pursuing a participatory and equity-centred approach to designing and scaling complex social systems change are recommended. As an ongoing case study, the paper concludes by highlighting roadblocks, challenges, opportunities, and additional considerations for scaling complex social systems change with faculty, staff, and students.

KEYWORDS: relationship-rich education, systemic design, scale, persistence, engagement, retention, SOTL

RSD: Cases & Practice, Methods & Methodology, Learning & Education

Presentation context

Southern New Hampshire University (SNHU) is a non-profit higher-education institution consisting of more than 160,000 learners. While the vast majority of students study in an online modality, 3,200 students study on a physical campus in Manchester, New Hampshire, USA. Most Campus students are between the ages of 18-22 and are often looking for a "coming of age" experience. Online students tend to be in their late 20s to early 40s and, as a whole, are focused more on changing career paths or returning to education. The varying identities, life stages, goals, and learning modalities create tensions around scale and systems change.

SNHU's North Star initiative is "to transform lives at scale." For some on the much smaller campus, the word "scale" can make them bristle, believing it comes in conflict with the personalisation they have always revelled in. This paper, and the work it represents, asks readers to rethink traditional notions of systems change and scale. For instance, scale is not only achieved by serving more people, but by making intentional, relational, and small changes across the university–transformations intended to affect its culture, policies, and infrastructure.

Like many schools during the pandemic, SNHU stakeholders were asked to reimagine much of the curriculum, processes and culture while trying to balance the constantly shifting sands out in the "real world." Resources were combined across the whole enterprise to build in efficiencies and to remove barriers that previously made it difficult for students to flow between both campuses. And, like many of SNHU's counterparts, employees observed mounting mental health issues, widening gaps in content knowledge and an increasing sense of isolation (Gluckman & Mangan, 2022). Students were not the only population to encounter the feeling of isolation; in fact, silos cropped up in many places that were collaborative pre-pandemic. Collaboration felt more difficult than ever before.

In response, the Learner Engagement and Academic Innovation (LEAI) organisation was formed. LEAI was asked to improve retention and build a renewed sense of belonging after an 18-month period of remote learning. The team consists of faculty, staff and students

who work to ensure student success metrics and interventions are woven intentionally into academic spaces. The LEAI team were challenged by many questions: “How does one improve retention during a period of enormous transformation while the effects of the pandemic are just coming into view?” And “how does one also improve the culture when the pandemic changed the way we worked with one another?” To answer these questions, investigators tied qualitative and quantitative data from their own campus with strategies from the latest research on retention, relational learning, student success (Felton & Lambert, 2020), as well as systemic design (Banathy, 1996; Jones & van Eel, 2022). They also engaged with co-author Danielle Lake of Elon University’s Center for Design Thinking as an expert in participatory design thinking practices and complex systems change. In the spring and summer of 2022, a set of ten retention and persistence prototypes were developed to intentionally change the ways campus constituents work with one another.

The authors of this paper worked across the entire university, collaborating with hundreds of colleagues designing and testing interventions with the various kinds of scale in mind. This paper documents one case study that explores how diverse forms of scaling might cultivate systems change that best meets the needs of diverse stakeholders across the system.

Review: the various ways one can scale systems change

Aligning with recommendations from systemic design researchers, the interventions developed to improve retention and student success seek to “scale” across the university by influencing problematic policies and practices, shifting resources and power, building relationships, and transforming mental models (Kania, Kramer, & Senge, 2018). They also align with recommendations that efforts intended to address complex systems change should not simply focus on scaling up and out, but also invest in scaling deep (Riddell & Moore, 2015), initial conditions, and scree (Tulloch, 2018).

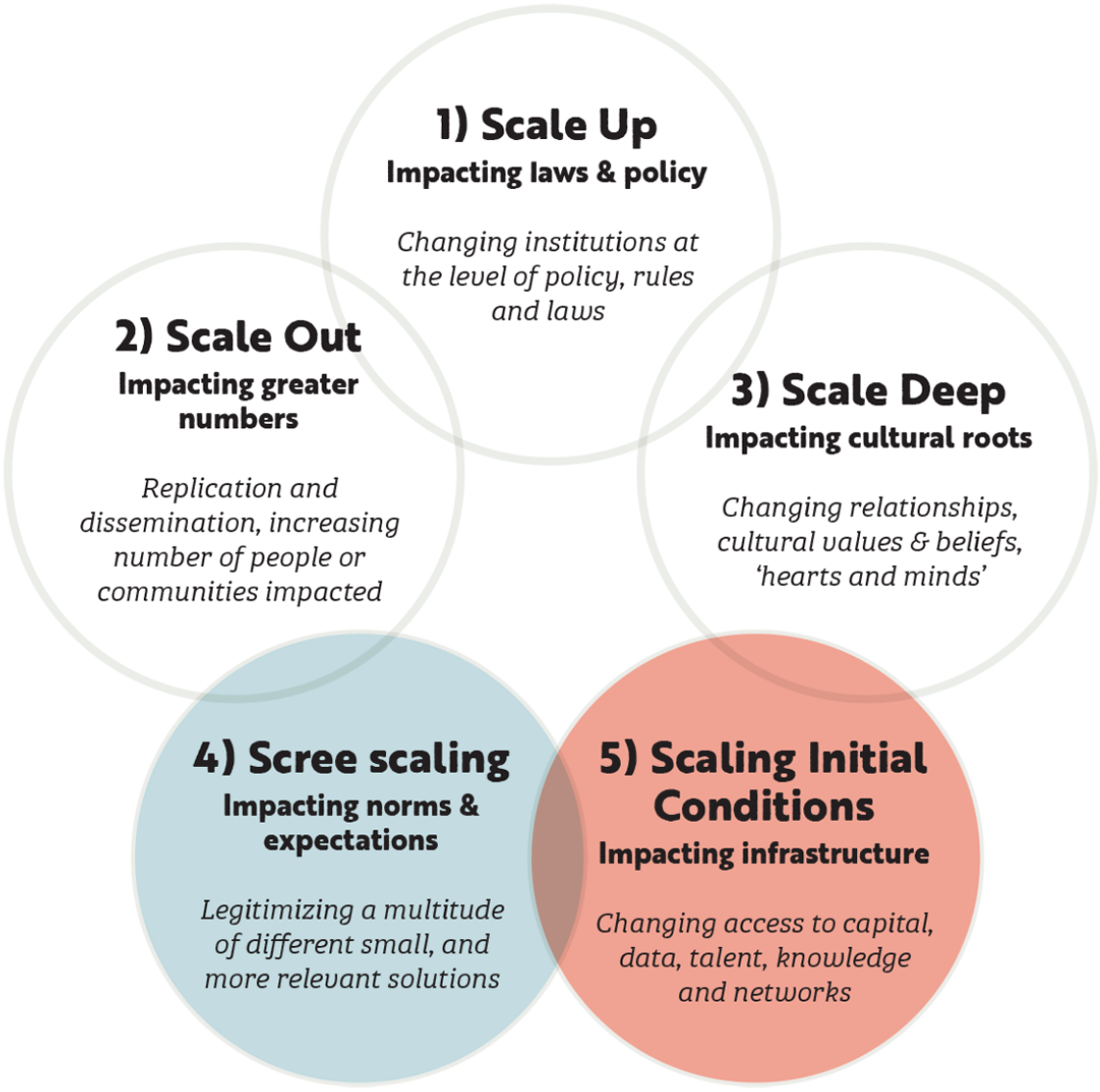

Figure 1. The five forms of scale visualised above are from Tulloch (2018).

Given a commitment to participatory design interventions and best support diverse stakeholders, the interventions highlighted scale in these hybrid ways; many, for instance, are meant to serve a small, historically marginalised population of learners on the face-to-face campus, while others are proofs of concept meant to help us determine ways a small campus can provide value to the 160,000 online learners (by connecting online learners with their campus home–even if it's thousands of miles away from where the student live).

Scree

While proof of concept interventions can support efforts to scale out to reach greater numbers; scree scaling cultivates systems change through many small interventions. Designs that “scale scree” both emerge from and respond to the unique complexities of the place and moment. They also "supply the larger system with a pluralistic menu of creative approaches [and] put pressure on that system to be able to... support them." Over time, they "shift cultural norms and expectations because there are a lot more agents driving new visions" (Tulloch, 2018).

Reflecting this commitment to scale scree, a "good habits" intervention was initiated through a common university reading of Atomic Habits by James Clear (2018). In the book, Clear describes that success and improvement come from the “aggregation of marginal gains'' (p. 13). He documents research reinforcing success comes not from one major disruptive change – but it is the implementation of many small, intentional changes that lead to long-term success. In many ways, scree scaling was the predominant lens through which this work was embraced. Rather, the LEAI team strove to shore up dozens of gaps found when reviewing data. And in shoring up issues, many stakeholders benefit from the combination of interventions maximising student success on campus.

Initial conditions

Scaling initial conditions recognises that access to resources, information, and networks is critical for cultivating change. Given the recent charge to increase retention, many initiatives outlined below apply this strategy, shifting resources, access to capital, and knowledge networks. The LEAI organisation centralised all of the retention initiative spending, and faculty, staff and students were provided additional stipends to operationalise new work. To even the playing field, all participants were provided with compensation for this work in an attempt to honour the extra work that was needed to get these initiatives off the ground by everyone.

Deep

Deep scaling cultivates systems change with constituents over time. Building on the work of Riddell and Moore (2015), Buckenmayer et al. (2021) argue that we must explore the value of scaling deep if we are to shift cultural values, mindsets, and beliefs. When scaling deep, the goal is to cultivate "fruitful friction" across differences and thus support personal transformation (overtime, thus supporting social transformation). This form of scaling requires the friction of conflicting points of view and the exploration of alignment across differences. The decision to frame these interventions around a “relationship-rich education” and to have as one of its four goals “Intentionally weave academic and student support teams in the work” enabled these kinds of “fruitful frictions.” For instance, colleagues who had not worked together closely and whose perspectives were not shared across groups were finally connecting, sharing their experiences, and cocreating visions for the future. With this form of scaling in mind, the proposed work intentionally brought many stakeholders to the table in new ways to build systems change.

However, visualising the value of deep and scree scaling can be challenging. “Scaling out and scaling up” are tempting partly because they “happen at the surface.” They are “visible and tangible” (Buckenmayer et al., 2021). Scaling deep is “intangible, invisible and hard to grasp” (1), while efforts to scale scree can be incredibly hard to track within complex, emergent systems. While it is easy to read a list of the interventions selected to improve

retention rates, the close relational work is the “hidden curriculum” of the design as a way to improve culture by leveraging students, staff and faculty as partners in the work.

Where previous redesign work was usually completed in isolation by a small group of faculty in the same discipline, now cross-functional teams of faculty, staff and students work to improve retention, persistence, and student success by providing holistic observations from advising, athletics, admissions, and accessibility staff who have worked with these students, but may not have been part of the curricular design in the past. While this may seem relatively trivial, intentionality in embracing the idea of radical collaboration—a design mindset popularised in many human-centred approaches – brought more perspectives together and helped break down silos, reduced inefficiencies and redundancies, and better served the learners’ needs (Tamm & Lycut, 2019).

Aligning with participatory design efforts, all ten interventions require faculty, staff and students to work as partners throughout the design, implementation, and assessment of the pilot. The work of students as partners in the teaching and learning space is well documented, most notably by Alison Cook-Sather, Catherine Bovill and Peter Felten (2014). In the work outlined in this paper, doctoral students partnered with faculty and staff to write the studies and measure the effects of each intervention; undergraduates provided feedback to inform the creation of new assignments and were hired to facilitate workshops and help bring students to events that garnered a sense of belonging.

Method and Process

Empathy

Empathy work allows designers to “know your users and care about their lives (Stanford, n.d.) and involved a combination of data analysis, focus groups to confirm or refute findings in the data, as well as research into best practices for retention and sense of belonging.

As highlighted above, The LEAI team found a shared vision for this work through Relationship-Rich Education (2020) by Leo Lambert and Peter Felton of Elon University and

Atomic Habits (2018) by James Clear. In Relationship-Rich Education, Lambert and Felten (2020) interviewed more than 400 individuals at varied institutions of higher education. They posited four themes that influence student success. They are

1. Every student will experience deep care and relentless welcome.
2. Every student will be inspired to learn.
3. Every student will have a web of support.
4. Every student will be helped and challenged to think about the big questions of their lives (p. 17-18).

Where Relationship-Rich Education provides ways to interact across and between groups, Atomic Habits makes the case for scree scaling in life, giving examples like the British bike team whose very small changes eventually led to their success in the sport (p. 13-15). The focus on small gains and developing systems rather than listing goals helped to bring clarity to the work.

The LEAI team utilised the findings from these texts to develop focus group questions, ensuring voices of the historically marginalised student were present in the data. These focus groups, coupled with the university's institutional data, the best practices from Lambert and Felton's text, and other models present in the literature, formed the basis of the empathy work. Once the empathy work was completed, teams collaborated to design scaled interventions that cultivate systemic change. By thinking through the systems that are currently in place and how one can best make intentional and experimental, radical and incremental, ground-up change, so stakeholders feel a sense of ownership and autonomy.

Triangulating findings in this way highlighted the central challenges to persistence and retention: students struggled with finding a sense of belonging, felt underprepared for the academic rigour of university, and did not have a strong sense of self-efficacy or emotional resilience. The lack of communication between campus stakeholders caused isolation and frustration.

Define

In the define phase the team worked to hypothesise what problems may lead to declining student numbers. The identified problems included “What caused some learners to leave the university?” and “What opportunities are there to improve the sense of belonging on campus?” Stakeholders were receptive to the problems being faced and helped to begin developing prototypes, and most excitingly; they were invested in the work and wanted to be a part of the solution.

Ideation

Many sessions were ideation sessions; faculty and staff were presented with attrition data. The team generated dozens of ideas and then went through the process of selecting and prioritising possible prototypes. As stated in many design thinking videos and in the literature, judgement was deferred, and all ideas were encouraged (Stanford, n.d.).

Prototyping

After considering and theming the ideas generated, prototypes were designed and moved to the test phase, quickly demonstrating the designer’s mindset of having a bias toward action.

Testing

Most testing is currently underway; students are engaged in all of these activities, and data is beginning to come in. Student, faculty and staff researchers successfully sought IRB approval and collected qualitative data while Campus Analytics created grouping variables for each intervention.

Ten Interventions for scaling systems change

Building good habits

The building good habits intervention focuses on Atomic Habits (Clear, 2018). Atomic Habits is currently assigned as required first-year reading and has been read by campus advisors, admissions counsellors, members of residence life, and select courses/programs around campus.

This intervention was particularly important to launch quickly because, in the annual pre-matriculation survey, more than one in four students indicated they were nervous about time management. Wide campus adoption allows for common experiences and language amongst staff, faculty, and students, thereby beginning to break down some of the barriers indicated in the survey.

This initiative simultaneously scales out, deep, and scree. Its cross-campus outreach scales out, while the way it is embedded in curricular and cocurricular communities of practice fosters opportunities to scale deep. In addition, the recommendations within Atomic Habits inherently encourage scree-scaling. The goal was to make the content unavoidable.

SNHU by your design/Plan Jams

Plan Jams were designed to help students identify and design their own paths to accomplishment via collaborative brainstorming on how they might best manage their time, hold each other accountable, and begin to fully conceptualise the paths they developed for success in college. By weaving habit development into first-year experiences, students began to identify and design their own pathways. While some paths indicated career hopes and others focused on personal gains, the one piece these all had in common was the passion of the students reflecting upon their goals.

This initiative seeks to scale initial conditions by increasing students' awareness of and access to on-campus resources and networks. It also seeks to scale deep by trying to cultivate relationships, hearts, and minds.

Learning strategies

A course entitled Learning Strategies Seminar has the critical goal of providing students with the skills they need to succeed in college. Historically, this course was taken by fairly academically successful students who self-identified that this course would be good for them to improve their habits. In many cases, the students who needed the course most chose not to take it. Therefore the LEAI team worked across the university to identify the population who needed it most and enrol students automatically into the course. Seventy-five students with high school GPAs under 2.75 with academic skills are enrolled in this course. These students will be used as a test case before bringing this initiative forward to the entire campus population with sub-2.75 GPAs.

This initiative changes institutional policies and practices (scaling initial conditions). It lays the groundwork for scaling up. It also scales out, increasing the impact of a tried-and-tested practice.

De-stress

As part of the De-stress program, small cohorts of first-year students work together with upper-level psychology students to help develop plans for emotional success throughout the term. The upper-level psychology students are trained and supervised by faculty mentors throughout this process. This model leverages peer-to-peer learning in its design. This intervention scales deep and transforms initial conditions.

Learning communities

Learning Communities at SNHU, while not new to the university, were found to be lacking intentionality. Using data, specific populations were identified as being key Learning Community participants. Merging these populations, such as students majoring in physics and game programming, encouraged the learning of concrete skills and abstract principles; learning in tandem with physics students allowed game programming students to more easily reach course grade goals.

Additionally, undeclared students are part of a learning cohort in Fall 2022, designed to build a network of support aimed to encourage persistence to graduation. Currently, undeclared students persist at 13 percentage points lower than those that enter school with a declared major. These students have three courses from different disciplines (Communication, Sociology, and Environmental Science) linked by shared projects and themes. The purpose of this cohort is to allow students to experience how a common problem can be approached from different angles while assisting them in determining the fields about which they are most excited. This model leverages peer-to-peer learning in its design. This intervention scales deep and transforms initial conditions.

Studio learning

Regarding studio learning, the Communication, Graphic Design, Game Development, and Game Design majors all have similarly modelled studios focused on placing students with industry partners during year one and continuing these types of relationships throughout all four years. Higher-level students, while working on capstone experiences, will mentor lower-level students as they work on client projects.

The Entrepreneurship cohort has focused largely on developing student relationships through shared experiences related to building, developing, and starting a new business.

By seeking to change access to capital, build relationships, and cultivate capacities, this initiative supports both deep and initial conditions scaling. This initiative has also scaled up by changing the policies around student enrollment caps, cross-course collaborations between up to a dozen classes and three instructors from diverse disciplines, and project-based learning with off-campus partners.

Learning fellows

The Wolak Learning Fellows program is a peer-embedded support program that simultaneously works to improve faculty development. There are three parts to this program. First, learning fellows take a pedagogy course that employs design thinking as its primary methodology. Learning fellows think of the traditional classroom as a laboratory to

design learning science experiments utilising design thinking principles as part of a way to further student engagement and allow for alternative voices in the classroom. Second, learning fellows are partners in teaching content and carrying out these experiments by attending one section of a class where they were successful and many students struggle. Third, the learning fellows and the course professor work with the Center for Teaching and Learning in a weekly huddle where the teaching team reflects on the week's pedagogy and the results of the classroom experience to continually improve the learning in the classroom. The aim is to build community while looking for ways to improve teaching effectiveness by adding more active learning approaches. Designed after the Learning Assistant Alliance model started more than 20 years ago at the University of Colorado-Boulder (Otero, 2016). Starting in 2018, this program has demonstrated a 5% overall improvement in the retention of learners at University College.

The Learning Fellows initiative scales initial conditions by changing access to talent, knowledge, and networks. It scales deep by cultivating relationships and shifting values over time. And, by legitimising iterative interventions at smaller scales through weekly interventions, it also scales scree. Given its success, pilots aimed to scale out are currently underway.

Peer-embedded synchronous supplemental sessions

While the Learning Fellows program has been transformative for on-campus students and faculty, this model does not transfer seamlessly into the online campus ecosystem where there can be dozens of sections of one course. To meet the needs of 160,000 diverse online learners, this pilot provides faculty and peer-embedded support in three drivers teaching faculty, and learning fellows first offer an interactive synchronous supplemental session for students and moderate a live conversation via chat. Second, a video of that intervention is recorded, and learning fellows air it a second time live and answer questions. Third, the video content is banked and is made on-demand for students to be able to review content any time they want.

Persistence projects

New persistence initiatives have been designed after two innovative projects: The Georgetown Scholars model and the Oakton Persistence Project. The overall goal is to increase persistence and retention by supplying students with connections and tools needed to succeed in college.

The Georgetown Scholars model pairs first-generation students with peer and alumni mentors to better prepare students for college years and the workforce by presenting them with a partner who went through shared experiences (e.g., being a first-generation student, having the same major, graduating from the same high school).

The Oakton Persistence project uses four low-effort interventions shown to dramatically increase persistence and retention. This initiative is modelled after a successful intervention carried out by Oakton Community College, which researchers found led to a 22% increase in persistence and retention (Felten & Lambert, 2020). These strategies—learning students' names, providing meaningful assignment feedback, setting high standards for assignments, and meeting with students on a one-on-one basis—are to be completed within the first three weeks of the term. Data will be collected from these faculty and used to judge the effectiveness of this program for the student population.

This intervention replicates tested interventions (scaling out), encourages a multitude of light lifts (scaling scree), changes access to data resources (scaling initial conditions), and – if and when implemented – can transform the relationships between faculty and students (scaling deep).

Use Every Minute and Earn While You Learn

The Use Every Minute initiative leverages insights from a "Don't Cancel Class" initiative at Elon University, whereby a faculty member who must miss class for a conference or some other reason consults with the Center for Design Thinking to create a meaningful class experience offered by student leaders or the Center's Director, Danielle Lake. They offer student-designed and led workshops on key campus priorities, supporting diversity, equity,

and inclusion efforts alongside the yearly campus common reading and other goals. This initiative has led to hundreds of course-embedded workshops designed to support key university priorities and student learning each academic year. They have also served as a major recruitment tool for the Center while providing facilitation and leadership skills for learners.

“Earn While You Learn” leverages campus jobs as places where learning takes place. Campus jobs, especially those funded by work-study, are unable to rival local salaries since the pandemic. To make campus jobs more desired, students will be offered credit to reflect on the experiential nature of working and learning in the same environment.

As pilots, investigators seek to scale initial conditions for systems change. These proposals were developed with the belief that they can build a stronger sense of belonging and lead to greater campus retention. If done well and with intention, they can also scale deep, helping students make stronger connections on Campus to the services that can benefit them. The goal of this work is to meaningfully use all class time and time on campus while helping students build a constellation of campus relationships-- so they feel more comfortable seeking out resources.

Taken together

In isolation, each initiative seeks to impact the system in diverse ways, such as scaling up an initiative from a learner population of 3,200 to a learner population of 160,000 or aiming to scale deeply, such as Learning Communities and Atomic Habits initiatives. Collectively, these initiatives offer a model of intentional scree scaling, leveraging interventions that seek to shift processes, build relationships, shift culture, and transform policy over time; they try to “aggregate marginal gains” (Clear, 2018) to leverage a greater improvement in retention and student success.

Summarised in the table below, these initiatives largely create the initial conditions for cultivating systems change through relational networks. Readers will also note that only two of these initiatives have scaled up, while three have the potential to scale up within the year. Given the recent charge to increase persistence and retention and that many of these

initiatives are in their first-year pilot phase, this is not surprising. In addition, these results also reflect the commitment to participatory and relational codesign. It is suggested this is because many of these initiatives are in the pilot and testing phase.

Table 1. SNHU Initiative mapping for scaling systems change. A question mark connotes the possibility of changing policies and rules but has not happened at this point.

Mapping Scaling-Efforts for Complex Systems Change					
	Initial Conditions capital, knowledge, networks	**Scree** many, small interventions	**Deep** relationships, mindsets	**Out** Increase numbers impacted	**Up** change policy and rules
Building Good Habits	√	√	√	√	
Plan Jams	√		√		
Learning strategies	√			√	√
De-stress	√		√		
Learning Communities	√		√	√	

Mapping Scaling-Efforts for Complex Systems Change					
	Initial Conditions capital, knowledge, networks	**Scree** many, small interventions	**Deep** relationships, mindsets	**Out** Increase numbers impacted	**Up** change policy and rules
Studio Learning	√		√	√	√
Learning Fellows	√	√	√		
Peer-embedded synchronous supplements				√	?
Persistence Projects	√	√	√	√	?
Use every minute & Earn while you learn	√		√		?

Challenges and limitations

Turf

One issue with using messaging that resonates with everyone is that it is often easy to find oneself in “turf wars.” Leading this work is particularly challenging because it crosses all boundaries between academic and co-curricular and blurs the roles between students, faculty and staff. If done well, all voices carry equitable weight, and this is not always a dynamic all stakeholders are comfortable engaging. Everyone “owns” a piece of the work.

Communication

Early on, effective communication was a major roadblock in completing these initiatives. During the beginning stages of design, communication followed a more traditional, top-down approach. Assigning leadership to each initiative and allowing these leaders to delegate and communicate as they see fit has been instrumental in getting many of these initiatives off the ground. Additionally, clear and concise communication methods, as well as larger group check-ins, have benefitted the whole team and helped maintain a sense of community throughout the process.

Recommendations

Practise what you preach

To scale deep, build relationships, shift mental models, and catalyse culture change, investigators consistently aimed to model a “relationship-rich education” that centres students in the work. Popular leadership books like Good to Great (2001) encourage leaders to think about having the right people in the right seats on the proverbial bus. The collective shared experience of all three authors is that students are often left “off the bus.” This omission not only ignores the voice of the student in the work, but it also omits the “secret sauce”, which is that faculty and staff tend to collaborate better when students are in the room. The teaching opportunity inherently offered to students seems to change the ways they complete their work.

Engage with “confident humility” and lead with designer’s mindsets.

The authors of this paper sought to inspire colleagues to participate in a particular way, including a vulnerability of leadership to relinquish power in the name of empowerment. In the popular text, Think Again (2021), Adam Grant describes confident humility is as “having faith in our capability while appreciating that we may not have the right solution or even be addressing the right problem. That gives us enough doubt to reexamine our old knowledge and enough confidence to pursue new insights” (p.47). In the text, Unleashed: The Unapologetic Leader’s Guide to Empowering Everyone Around You (2020), Morris and Frei share how the leader’s ability to step back and allow others to take up the work leads to greater change. For the authors of this paper, the idea of “confident humility” tracks with the designer’s mindset because being “radically collaborative” means involving all stakeholders intentionally in the design as opposed to writing a plan with a small team. It also means not being the final decision-maker when the team writes a proposal.

Being curious as a leader means one doesn’t come into the work with the solution but empowers colleagues to develop many solutions while testing and iterating ideas with small, empathetic populations.

Leaders who model confident humility have a “bias toward action,” testing prototypes in small pockets to learn from them before investing too much time and money.

Summary

SNHU is centralised around the North Star mission of “transforming lives at scale.” While many may hear the word “scale” and think the word scale only connotes reaching more people, this paper argues that there are a diversity of ways to scale, including both broad and deep scaling efforts, which can lead to impactful systemic change. And by making sustainable changes in the environment, one builds the capacity to transform individual lives. In this case study, the combination of efforts is meant to transform the lives of learners and employees alike, especially in the case of improving a sense of belonging across the university.

The work of culture change is hard, and there is no silver bullet guaranteed to retain students–especially after a pandemic. It is the belief of the investigators that leaders and changemakers should utilise systems thinking methods and designer mindsets to cultivate systems change. Leaders must be vulnerable and flexible in their thinking, stating that they aren't sure if an intervention will work but model with confidence their belief that it will work based on evidence, prior learning and faith in the people empowered to do the work. And if one is to build sustainable systemic change, one must strategically design diverse interventions that value diverse forms of scale, especially efforts that support culture change and have staying power. As a case study analysis of systemic change efforts, this paper details how a small campus team can design, implement, and assess interventions for systemic culture change that simultaneously work to improve student learning, engagement and persistence.

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