

# LEARNING ECOLOGIES

Can the City Be Our Classroom?

“We’re striving to build a university as it should be, not how it may have accidentally evolved over a hundred years.” – Mike Wang, Minerva Schools

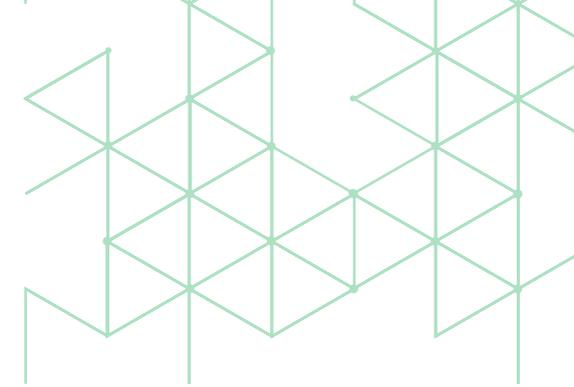


## INTRODUCTION

This document captures some of the major ideas and questions that emerged from a series of three roundtable discussions focusing on experiential learning and hosted in Gensler’s San Francisco office.

Participants included thinkers and innovators from elementary education, high-school, university, and cultural institutions.

Our question for all discussions was the same, though the varying mixture of participants resulted in three very different conversations. This document doesn’t pose design solutions, but rather reveals some of the major questions on the horizon for our clients — not only in education, but also retail, cultural, and civic work.



## INTRODUCTION

### The Question:

In a world where resources for learners are pervasive and abundant, where institutions may no longer play the role of primary purveyors of information, and abilities may be represented in ways different from the traditional diploma, **what role will the institution of education play?**

### Resulting Themes:

- Curators of Experience: Learner-centric Education
- Community Matters
- Irresistible Places
- Technology is a Tool, Not a Solution
- In Defense of the University
- Tinkering
- Beyond the Report Card
- Intergenerational Learning
- Scale It Up

“I’m going out and using a series of experiences and apprenticeships to create a new form of higher education.”  
– Dane Johnson, The Experience Institute



## CURATORS OF EXPERIENCE: LEARNER-CENTRIC EDUCATION



“Experiences need to go beyond the field trip.” – Jay Roberts, Earlham College

If you “no longer focus on content, it’s about character, it’s about cultural competency, everything changes... it’s rooted in a kid’s own truth, their story, their culture, their intrinsic strength that they bring with them.”

– David Clifford, Design School X, Stanford d.School

In each roundtable discussion, participants touched on this first emergent theme. When re-defining the role of our educational institutions, participants identified the changing role of the educator as a “Curator of Experience.” The learner is at the center of education and learning happens both inside and outside the walls of the classroom. The goal of this kind of education is not to impart information, nor to create experts, but to allow students to learn how to identify questions, themes, and problems. These skills prepare students for college and life beyond. Educators inspire students to explore, and learners are driven by their own interests and passions. Participants spoke about collaborative learning, where students discover together and nurture unexpected outcomes. It is important that experiential opportunities are not “opt-in” nor episodic, but rather an ingrained part of their life and school experience. Students can discover their own passion, making learning more memorable and impactful. Berkeley’s Edible Schoolyard project for public school students, for example, created an entire classroom that is a garden and kitchen. Students don’t simply take one field trip to the garden, this is an ongoing experience that is embedded in the curriculum, allowing students to discover health, science, and ecology in a holistic way. In this new learning environment, educators play the role of curator, identifying and fostering opportunities for students to navigate their own intellectual growth.

“The City needs to be more open. Our students live in the world of Airbnb where anything is their space. But the city isn’t open to them right now.” –Mike Wang, Minerva School



“If we’re using the City as our laboratory, we have a responsibility to the City. We should not just be ‘tourists’ and not just use it as an object.” – Susan Moffat, UC Berkeley

## COMMUNITY MATTERS

Many of the most forward-thinking educational institutions do not have a physical campus. They share space, inhabit former office buildings, or defunct retail environments. However, our discussions revealed that place, identity and community remain important. Many of the roundtable participants spoke about an entire city as their home-base.

The Experience Institute, a program that guides students to build a portfolio and professional network through apprenticeships and self-guided projects, creates a sense of belonging from a network of alumni and apprenticeship partners. The Minerva Schools at KGI is an undergraduate program that allows students to learn and network in a different city every semester. For these students, their sense of belonging is rooted in a different city every few months and is deepened by doing work and projects within that city.

For those institutions without a campus, there is a reliance on networks of teachers, industry partners, students, and alumni to create community. Our roundtable discussions revealed, however, that a network is also crucial to legacy campus-based institutions. A student’s time on campus is finite, but a network of educators and collaborators ought to transcend the four years one spends in college.

This discussion revealed a new role for the city’s built environment. Institutions still require places for learning and interaction, so there are opportunities for shared resources such as classroom space, health and wellness facilities, and housing. Instead of a more traditional, sometimes contentious divide between the town and the institution, there are opportunities for partnerships to create better places for both students and citizens.

## IRRESISTIBLE PLACES

“All of these experiments and performances that are in the art history books happened in that room... there is something about the walls... that seems magical.” – JD Beltran, CCA

Is a single physical campus a vestige of the past or a truly relevant aspect of education? Several new institutions noted that no matter how small or spare, there remains a value to a specific place where cohorts of students can come together, whether on a regular basis or only once a semester. Legacy institutions like University of California Berkeley and California College of the Arts (CCA) still see the value of their anchor campuses. Students feel a sense of pride and that sense of belonging that comes with a campus that has housed generations of intellectual innovation. Even if these institutions encourage students to complement their on-campus education with work off-campus and sometimes open extension locations, their home campuses remain critical to the institution's sense of identity. For cultural and extra-curricular institutions such as 826 Valencia, their physical spaces are a critical part of their mission.

Discussions revealed that there are a few reasons for this remaining tie to physical places. When learners come together in a specific place for a finite amount of time, they stay focused and committed. Transcending a barrier to entry, whether it is admission, cost of tuition, or a physical element, creates an immediate sense of belonging, a sense that one is part of an intellectual and creative legacy. Perhaps most importantly, we discussed how a place, the way it feels, the way it functions, can directly foster and enhance an institution's mission. Our most impactful memories of school often surround these special, irresistible places, a corner of a library or the place where you ate lunch with your friends. Places like 826 Valencia, the Exploratorium, and the California Academy of Sciences cultivate these spaces to entice participation, allowing learners to become immersed and have memorable experiences.



“Our space is magical and weird and cultivates a sense of wonder.” – Bitia Nazarian, 826 Valencia



Some online learning platforms are “very piecemeal and a function-oriented way of teaching...they don’t teach you an overall way of thinking.” –JD Beltran, CCA

## TECHNOLOGY IS A TOOL, NOT A SOLUTION

“Information and knowledge are different things.” – Clark Thenhaus, CCA

Many of the innovations we heard about during the roundtables rely on online learning platforms. However, participants acknowledged the importance of pairing technology with personal mentorship to realize a holistic educational experience. Participants drew a distinction between isolated information that is readily available online and deep understanding. The latter can only come from working with an instructor or learning from one’s peers. Information delivered in a vacuum, unrelated to real-world experience, is difficult to internalize and doesn’t feel relevant to the student. Participants also recognized that technology and equipment are evolving at such a pace that treating them as solutions is futile. Students who feel empowered to use any technology as their tool and platform will be prepared for an ever-evolving landscape.

Participants recognized that use of technology as a tool in the educational process, however, is beneficial, including the ability for students to share ideas with a broad audience, which engenders a sense of responsibility to that audience. By sharing their work and ideas, students are exposed to outside perspectives. They have a voice and therefore responsibility beyond the walls of their classrooms. There are still teachers who limit access to social media and user-generated content in the classroom, but some participants advocated for encouraging skepticism of online content, rather than restricting access to it. Instead of being prevented from using Wikipedia, students should feel a responsibility to question it and feel empowered to change its content.

When addressing the constantly changing nature of equipment, participants emphasized that investing in the latest gadgets is investing in obsolescence. Educational institutions could, instead, partner with corporate, scientific, or cultural institutions to expose students to the latest equipment and technology. In this relationship, the line between the educational institution and the corporate world is blurred, benefiting both partners with unexpected outcomes and insight.

## IN DEFENSE OF THE UNIVERSITY

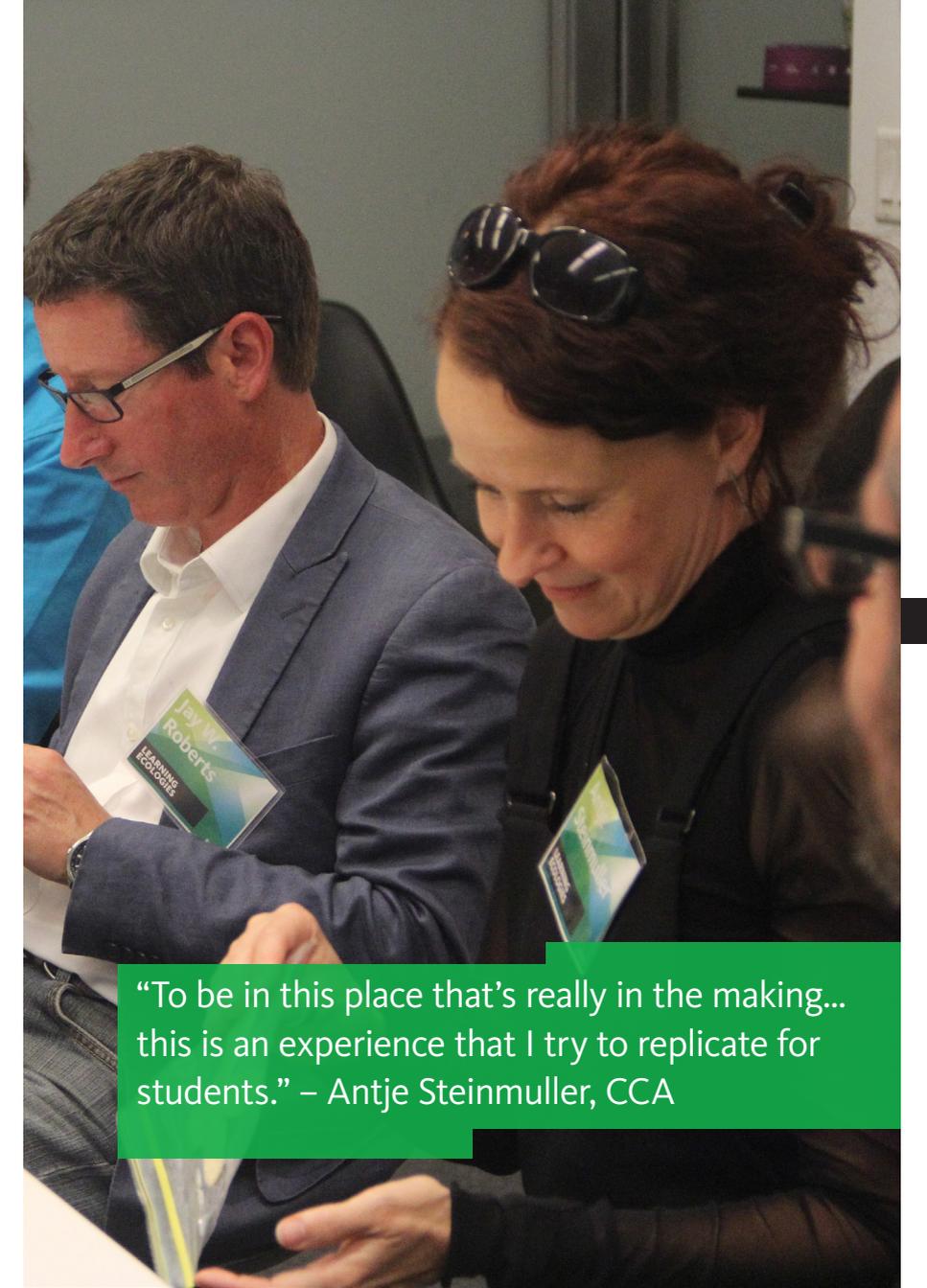
“The role of the academy is meant to speculate versus the role of apprenticeship which is a reinforcement of the way things are.” – Clark Thenhaus, CCA

When we demand that learning be unencumbered by expectations for reaching a specific goal, a learner has the opportunity for free intellectual exploration. In the traditional educational model, issues of assessment, pressure not to fail, and the cost of education have placed into question the value of open intellectual inquiry. But institutions of higher education are under more pressure than ever to prove the ROI of a four-year residential college experience. They build maker spaces, academic incubators and they provide internship and experience opportunities. Is this their role? When we ask “what role does the institution of higher education play?” We need to place this question into a context that includes many other opportunities for students to grow.

The role of the educational institution is perhaps reclaiming its original function. One model we could consider is that school is not an isolated time in one's life, nor an isolated experience, but an endeavor that serves in partnership with many experiences. The Academy can provide a depth of exploration, a place to fail and test ideas, a place to grow as a social citizen. Roundtable participants espoused a place that is in-the-making, a place that is messy, that doesn't demand perfection, a community that encourages depth of thought and allows students to develop a point of view instead of mastering a skill.

This challenges students, professors and parents to be open to an unknown path. Perhaps the ROI is not immediately apparent, but a student who is prepared with the ability to question and problem-solve remains resilient in an unknown future.

“To be in this place that's really in the making... this is an experience that I try to replicate for students.” – Antje Steinmuller, CCA





## TINKERING

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novation, and where abilities and  
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ucation play?

“Tinkering is a form of learning that relies on the social scaffolding...of people co-learning and helping each other without an expert... and development of understanding.”  
– Luigi Anzivino, The Exploratorium

“I had to jettison my critical thinking mind in order to get the most out of the experience.” – Kadi Franson, ChangeX Education, Kid MOB

We’ve seen concepts such as “design thinking” arise in almost every discussion about innovation in education for the past several years. The roundtable discussions, however, revealed a few nuances that further emphasize the importance of this kind of approach to education. The term “design thinking” is instructive, but we found “tinkering” particularly apropos, as it includes the importance of play and prototyping within a context of experiential learning. Fluidity of the end-goal is key. By tinkering, students are open to whatever outcome may occur from the exploration. This is a learned skill. Students who favor fluid creative approaches to problems have sometimes been marginalized in our educational systems due to emphasis on grades and test scores. Implicit in encouraging open exploration, is the de-risking of failure. Rejecting standard methods of evaluation in favor of recognizing a student’s progress, managing student and parent expectations of outcomes, and recognizing experiences as successes all help to encourage open exploration.

Roundtable participants discussed the practice of short, intense projects called “design sprints,” or the workshop model and its ability to encourage tinkering. By reducing the time-line but increasing the intensity of a project and focusing on ideation and prototyping, students, faculty, and industry partners can be open to new ideas without the pressure of massive time commitments. Recognizing the outcomes of tinkering as an educational success is critical.

Capturing the outcomes of tinkering in a portfolio or through badging validates the specific intelligence and skills learned through tinkering. Recognizing successful outcomes of tinkering — instead of high test scores — rewards innovative, creative thought.

“Make everyone a master storyteller. In education we are trying to help people unpack a story.”  
– Joe Lambert, The Story Center



“When you do away with coming in with a CV and instead come in with a vision... that immensely levels the playing field.” - Brett Schilke, Singularity University



## BEYOND THE REPORT CARD

How do we measure and assess success and outcomes in the absence of assignments and grades? Parents want to know if their child is doing well. Students need feedback on their progress. When facing a future employer, students need to be able to share something that demonstrates their creativity, critical thinking, empathy, and curiosity. But there is no standard currency that can assess all the brilliance and complexity that an individual will develop over their educational career. Development of a portfolio, the ability to tell one's story and communicate one's point-of-view are more important to many employers than the conventional GPA.

Educational institutions committed to providing an experiential approach to learning seek to flip the traditional model. Instead of following the trajectory of rote learning before a student can apply skills to a project, students are given the opportunity to discover their natural abilities, their passions, and their successes first through experiences. Only then are they expected to demonstrate their acquired skills. This requires that distinct “subjects,” as we have thought of them in the past, might be approached as overlapping within one project. Skills in mathematics might be acquired in an art and design class, a scientific curiosity might be awakened in a literature class. This fluidity certainly will have a profound effect on curriculum, but also on the built-environment. Team teaching and quick access to resources and places to both focus and discuss will completely change the way we design places of learning.



## INTERGENERATIONAL LEARNING

“Relationships lie at the heart of education.”  
– Eric Temple, Lick Wilmerding High School

The concept of learning from an older generation is an ancient one, forming the very basis of education from the time of the sophists in ancient Greece and the apprenticeship model in medieval eras. This approach of “learning by doing” has resurfaced as a challenge to many educational institutions’ reliance on large class sizes and online instruction. However, an important variation on the traditional apprenticeship model is that age and experience level are not always the indicator of the role of educator.

Intergenerational learning can happen through an ongoing relationship and mentorship. In this context, storytelling is critical. When learners hear personal stories from someone who has actually experienced something, the ideas become much more relevant than reading about an event in isolation online or in a book.

Another valuable way to engender cross-generational learning is through shared projects or “design sprints.” Our participants from Minerva, CCA, and Berkeley all espoused the value of addressing a project or concept over an intense week with minds from many different generations: students, faculty, and professionals. The short burst of intense problem solving, both fosters the feasibility of integrating these groups and allows the cohort to focus completely on a project.

Core to this concept is the understanding that learning can occur outside a traditional classroom. Our workplaces, museums, public parks, and community centers all serve as places where learning can happen. When we think about what sorts of places are needed for these quick workshops, flexibility, proximity to prototyping resources, and all-hours access become critical. Similar to a design studio model, these places ought to be available to all disciplines, and could be shared with the community beyond the educational institution.

“You avoid hierarchy when you’re doing interdisciplinary work.... someone is good at one thing or another and age or experience become irrelevant.”  
– Susan Moffat, UC Berkeley



## SCALE IT UP



By “maintaining a student experience budget at the discretion of the teachers... education will always be enriched by learning outside the classroom.” – Joyce Lin-Conrad, Alt School

“Scale is the biggest challenge... we know how to do it... we just don’t know how to do it en masse.”

– Katie Levedahl,  
California Academy  
of Sciences

During the roundtable discussions, we uncovered many innovative approaches to education, and in each session participants asked: How can larger, public institutions provide these opportunities for their students? Our participants from cultural institutions such as the California Academy of Sciences and the Exploratorium are providing incredible programs, projects, and places to foster creativity. Our participants from independent organizations like 826 Valencia and the Story Center create forums for students to explore their own narratives. These opportunities rely on time and resources outside a students’ everyday commitments. What can large public universities, community colleges and public K-12 schools learn from these innovative organizations?

Our first assumption is, perhaps controversially, that we can’t wholly reject the traditional public school and university systems. The traditional public education system has many issues, but it includes a large number of students and is available to all students, no matter their location or economic standing. The challenge is to identify how the traditional systems can adapt quickly to provide more meaningful and relevant opportunities for students.

Our participants from some of the most innovative institutions in the educational world suggested a few strategies that could help scale-up innovative educational approaches. The Minerva Schools noted that they rely on a robust feedback loop. Their teachers and administration listen to this feedback and make quick changes to better cater to student needs. In order for institutions to remain nimble, the instructors and teachers need to have agency to make change. Stringent curriculum and standards detract from the big goal of developing more resilient and innovative students. Relying on technology to better disseminate information might play a role in the ability to scale up, however ultimately it’s skilled and imaginative educators that allow an institution to be great. Educational facilities that quickly adapt are key to the success of up-scaling. An environment that fosters awareness, accountability, and interaction will better empower educators and students to learn from each other and the greater community.

## THANK YOU TO OUR PARTICIPANTS



### ROUNDTABLE 01

- Tom Pryor, Khan Academy
- Dane Johnson, Writer, and Member of the Founding Class, The Experience Institute
- Clark Thenhaus, Professor, California College of the Arts
- Mara Hancock, CIO, California College of the Arts
- Susan Moffat, Project Director, UC Berkeley Global Urban Humanities Initiative
- JD Beltran, Professor, California College of the Arts and President, San Francisco Arts Commission
- Mike Wang, Director of Experience and Student Engagement, Minerva Schools

### ROUNDTABLE 02

- Howard Levin, Director of Educational Innovation, Convent and Stuart Hall Schools of the Sacred Heart
- Hiromi Tabei, Real Estate Design Coordinator, AltSchool
- Kadi Franson, artist, educator, designer, ChangeX Education, The Red Apple Digest, KIDMob
- Katie Levedahl, Director of Informal Learning, California Academy of Sciences
- Eric Temple, Head of School, Lick Wilmerding High School
- Luigi Anzivino, Content Developer at The Tinkering Studio, The Exploratorium
- Bitu Nazarian, Executive Director, 826 Valencia

### ROUNDTABLE 03

- Michael Sturtz, Executive Director, Stanford Creative Ignition Lab Stanford d.School & Autodesk
- Antje Steinmuller, Professor, California College of the Arts
- Leslie Roberts, Dean of Design, California College of the Arts
- Joe Lambert, Executive Director, The Story Center
- Brooke Hessler, Professor, Oklahoma City University & California College of the Arts
- Joyce Lin-Conrad, Head of Experiential Programs, Alt School
- David H. Clifford, Founder, Design School X and Senior Learning Designer, Stanford d.school
- Brett Schilke, Director of Impact, Youth Engagement, Singularity University
- Jay W. Roberts, Author & Associate VP Academic Affairs and Associate Professor of Education at Earlham College, Richmond Indiana



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