Creativity-Based Learning & Competency Building through Public Art

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Educational public art initiatives serve as potent, creativity-based learning environments capable of effectively imparting the transformative competencies, meaning skills and habits of mind, needed to navigate and shape the uncertain and rapidly shifting social, environmental, political and economic ecosystem.[1] While foundational curricula remain crucial in preparing young learners to succeed in their lives beyond school, educational public art initiatives provide a premise wherein young learners may expediently exercise agency, autonomous action, collaboration and problem solving, amongst other things, while providing a platform to become civically engaged. All of these are crucial competencies for addressing future complexities and participating in the digital and innovation-driven economy.[2]

Current and future demands require new ways of thinking, working, collaborating and expressing voice. To position actors in society for success, learning design must align itself with demands of the future. Societal and global interdependence requires stakeholders – irrespective of physical proximity or language – to interact with one another and to comprehend the system in its entirety, while understanding that a single action can create outcomes and ripple effects across the entire ecosystem.[3] Young learners must be afforded practical experience in navigating systemic interdependency and obtain the

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1   Cf. Reimers & Chung, 2016, pp. 6–12; OECD, 2018, p. 3, p. 5; Ucan, 2020, p. 199.
2   Ibid., pp. 199–200.
3   Cf. Arnold & Wade, 2015, pp. 669–678.

knowledge necessary to lead innovatively with digital prowess, an unwavering commitment to environmental sustainability and an insistence on social inclusivity. From economic, social, civic and environmental perspectives, a quantifiable incentive to craft learning opportunities which exercise skills and competencies needed for the future supports this value proposition.[4] Creativity-based, alternative learning environments pose an asset-based, efficacious premise from which transformative competencies needed to thrive in economy, citizenry and society are imparted.

Alternative Learning Environments: Incubators for Transformative Competency Generation

The ever-shifting world requires expedient, solution-oriented approaches to action, all of which can be achieved through the deployment of transformative competencies. Foundational literacy and numeracy skills must therefore be supplemented with learning experiences, which cultivate transformative skills that are often referred to as '21st-century skills,' 'soft skills,' or 'general thinking dispositions.'[5] Transformative skills are considered valuable skills that "lack specific associations with particular disciplines and that cannot easily be measured with psychometric tests."[6] Transformative skills include, but are not limited to, cognitive and meta-cognitive skills (e.g. empathy, efficacy and collaboration), practical skills (e.g. digital fluency, creative problem solving) and value-oriented mindsets (e.g. respect for diversity and different cultural perspectives).[7]

Transformative competencies envelop both skills and habits of mind, which are also referred to as specific intellectual behavior, meaning "dispositions toward behaving intelligently when confronted with problems, the answers to which are not immediately known,"[8] which represent the tools needed to effectively engage with and contribute to greater society. A compelling and effective avenue for disseminating these skills and dispositions is afforded through 'alternative learning environments' or project-based learning ex-

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4   Cf. Mankins, Garton & Schwartz, 2021.
5   Cf. Clapp, Ross, O'Ryan & Tishman, 2017, p. 28; Ucan, 2020, p. 203.
6   Clapp, Ross, O'Ryan & Tishman, 2017, p. 28; cf. Ucan, 2020, p. 203; Farrington et al., 2013, p. 4.
7   Cf. Clapp, Ross, O'Ryan & Tishman, 2017, p. 28; Ucan, 2020, p. 203.
8   Costa & Kallick, 2008, p. 24, p. 48, p. 72.

periences, i.e. learning interventions outside of foundational curricula typically provided through national education policy.

Alternative learning environments prepare young learners in an expedient manner, prompting participants to learn in different, unconventional ways that mirror the complex environment in which we live. Creating asset-based microcosms in which young learners can practice the critical skills and engagement needed to excel in the future provides them a chance to problem-solve, negotiate, exercise conflict resolution, and harness their creative voices to achieve tangible goals. The more learning environments mirror real-life action and challenges, the more students will be able to live well and lead.

Contributing to the advancement of learning from a premise focused on multiple 'futures' – i.e. teaching skills specifically useful for wielding and maneuvering the diverse and varied economic, social, civic and environmental futures ahead – will allow learners to flourish.[9] The knowledge and experiences provided by alternative learning environments are able to enhance young learners' skills and tools for life beyond school.[10] Developing multi-disciplinary, resiliency-centric education models through alternative learning environments aids societies in achieving a socially and economically prepared society capable of excelling through change.[11]

Public Art as a Medium: A Microcosm for Learning

The Microcosm

Education can embolden youth to make a positive contribution to the world through responsible, sustainable and inclusive action.[12] Designing learning environments aimed to model and mitigate future challenges while building resiliency enables participants to practice competencies while balancing systemic demands, whether environmental, societal or economic.[13] By design, educational public art initiatives serve as incubators wherein youth can equitably participate and engage in a simulation of an ecosystem through co-agency with fellow participants, community members and global observers.[14] This

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9   Cf. OECD, 2021, p. 3, p. 11, p. 34.
10   Cf. Costa & Kallick, 2008, p. 11, p. 59.
11   Cf. OECD, 2021, p. 1, p. 3, p. 11.
12   Ibid., p. 5.
13   Cf. Clapp, 2017, p. 9; OECD, 2018, pp. 3–4.
14   Cf. Ucan, 2020, pp. 202–203.

exercise poses an opportunity to hone transformative skills and conclude the experience better prepared to thrive in an increasingly interdependent world.[15] Public art making initiatives form a microcosm in which young learners are offered an ideal environment to exercise vital competencies. As learning, development, and creativity largely occur through interaction with others and can be viewed as socially inspired and participatory processes, it is crucial to offer youth collaborative, problem-solving learning opportunities.[16] Collaborative, multi-faceted public art projects afford a learning environment that helps young learners better understand themselves, their peers and a particular context.[17] For example, the skill of collaboration, achieved through effective communication and negotiation, is required and exercised throughout public art making initiatives.[18] During the development and production of such an initiative, participants must consider the project system in its entirety, meaning the interdependence of each of its individual components, and become cognizant of how their aesthetic, mission-related and practical actions will affect the final outcome.[19] Young learners are invited to be agile and grasp how one action in a given sector of the learning environment will influence another.[20] Navigating the learning environment of public art allows young learners to practice operating in an integrated manner and mimic the realities of extra-curricular engagement.

The Medium

Public art is art in the public realm and therefore accessible to all. It can prompt people to slow down, look closely and reconsider their surroundings.[21] By providing unencumbered access, public art removes boundaries to viewing art, including actual or perceived institutional intimidation and economic barriers, and invites the public to experience and engage with art.[22] Public art can generate awareness for a specific theme and inspire people to explore multi-faceted points of view; imagine the perspectives a work of art may in-

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15   Ibid., p. 203; OECD, 2018, p. 3.
16   Cf. Clapp, 2017, p. 7, p. 32, p. 45; Ucan, 2020, p. 203.
17   Cf. Clapp, 2017, p. 7, p. 32, p. 45; Ucan, 2020, p. 203.
18   Ibid.
19   Ibid.
20   Ibid.; OECD, 2018, pp. 5–6.
21   Cf. Tishman, 2018, p. 35, p. 37, p. 40; Ucan, 2020, p. 199.
22   Cf. Brara, 2019; Linzer & Munley, 2015, p. 28.

spire within a peer group, community and the world at large, where ripple effects are boundless.[23]

Public art is rooted in active listening and observation, as art is often a commentary on the specific context in which it resides.[24] Art in a public forum illuminates realities and aspirations while inviting individuals to discover diverse perspectives through visual provocation.[25] Public art can act as a physical manifestation of public voice and often prompts an asset-focused discussion amongst constituents. Whereas other means of unbridled public expression, such as the right of assembly or protest, often focus on systemic deficits in both content and manifestation, artistic expression in the public realm utilizes an asset, namely cultural contribution, to express a discursive issue.[26]

Inviting youth to participate in the creation of large-scale, outdoor public art is particularly impactful for young learners as it supports the acquisition of critical skills while empowering them to become civically engaged. Those who produce public art are offered the experience of tangibly interacting with their communities in a thoughtful, creative and autonomous manner. Educational public art initiatives can be youth-driven or co-crafted with an artist or teacher and can exist in many forms, such as muralism, performance art, installation or digital art. Through hands-on, collaborative participation, learners contribute to a community's visual landscape and take pride in, and ownership of, their environment while exploring a new medium of expression.[27]

The Competencies

Offering learners an awe-inspiring, unconventional experience such as large-scale, outdoor art making can yield profound results and support the transmission of competencies while boosting interest in academic participation, innovative habits of mind, and well-being.[28] The public art making platform creates an ideal premise to exercise transformative skills needed for the future while embracing the platform's inherently civic character to further goals of social and environmental change.[29]

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23   Cf. Ucan, 2020, p. 199.
24   Cf. Boomgaard & Brom, 2017, p. 14.
25   Cf. Ucan, 2020, p. 200.
26   Ibid.; see also Scales & Leffert, 1999.
27   Cf. Ucan, 2020, p. 202.
28   Ibid.
29   Ibid.

Throughout educational public art initiatives, equitable engagement occurs organically within the participant group by virtue of project structure and thus puts forth an example of equity in action. This is achieved by offering all participants an equal opportunity to contribute and by allowing each a premise from which to participate.[30] Equal opportunity participation does not imply a "one-size-fits-all" approach. Rather, it means that each participant is empowered with an equal opportunity to design how they wish to participate.[31] Offering varied avenues for participation increases access to the learning experience and offers an entry point to meet the specific needs of each learner. The project ecosystem offers multiple options for engagement and allows learners to choose how they will contribute, thus enabling them to exercise a plethora of competencies within any given project.[32] As public art initiatives create a system as a whole, options such as organizational management, production, artistic and aesthetic contribution, activism and public outreach are present, thus establishing an organization with many points of access for managerial, procedural, creative or communicative participation.[33]

Due to its large-scale and public-facing nature, educational public art initiatives are inherently civic and pose an opportunity to exercise civic participation, a key 'future competency.' Youth are more likely to become active members of their community and advocate for causes they care about in a broader public forum when provided with an outlet for civic voice.[34] Empowering youth to become agents of change by affording them this opportunity represents a strong mechanism in driving fundamental social advancement. Efforts made by artists in the public realm – for example by Danish artist Olafur Eliasson, whose "Earth Speakr" project motivates youth to "speak up for the planet and for adults to listen"[35] – underscore the value proposition that community leaders and constituents are more susceptible to listening and accepting a mission when social change values are presented through young voices.

Because of its 'real world' simulative nature, the alternative learning environment of public art is particularly effective in imparting competencies which support resiliency in young learners, specifically autonomous action, problem

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30   Ibid., p. 204.
31   Ibid.; Clapp, 2017, p. 10.
32   Cf. Ucan, 2020, p. 204; Clapp, 2017, p. 10.
33   Cf. Ucan, 2020, p. 202.
34   Cf. United States Government, 2021; Ucan, 2020, p. 202.
35   Eliasson, 2020; see also United Nations, 2019.

solving, and agility. Projects spark autonomous action by prompting learners to rise to the occasion, take ownership and responsibility of their work and project; in turn, their investment in the project is reflected in its outcome. Autonomous action furthermore strengthens individual commitment to a project and inspires participants to collaborate with their peers while taking accountability for their contributions.

As a creativity-based, alternative learning environment such as public art making begins with an asset-focused premise, it invites participants to exert free thought and output, thereby practicing problem solving, agility and perseverance. When problem solving is coupled with an asset-focused, positive exercise, learners are more likely to push past the 'pain point' to find a solution, and enjoy doing so.[36] Providing opportunities for young minds to practice adapting quickly and associate problem solving with a positive, affirmative experience increases the likelihood that future problems will be met with perseverance rather than ceding under pressure or discouragement (Fig. 1–4).[37]

Field Dispatch: Spoke Context – Youth-Driven Public Art in Action

The global nonprofit education organization Spoke Context leverages the agency and advocacy power of public art to impart transformative competencies needed to prepare young learners for the future in communities around the world. Spoke Context partners with schools, artists, youth organizations and the public and private sectors to realize powerful, large-scale, collaborative educational public art exhibitions. Collaborations between youth and international contemporary artists generate public-facing art installations that enable engagement with a new culture, creative media, and community through visual expression. Spoke Context projects exercise transformative competencies while illustrating how asset-focused, collaborative community engagement can generate positive outcomes. Spoke Context projects embody a learning environment in which students can hone critical skills before contributing to the world.

36 Cf. Damon, 2004, p. 13, p. 17, p. 19, p. 22.
37 Ibid.

Featured Project: *Spoke Context x Mittelschule Eichstätt Schottenau featuring* Hiroyasu Tsuri, in partnership with the Catholic University of Eichstätt-Ingolstadt

Where: Eichstätt, Bavaria, Germany
What: Youth-generated public art created through analog art making utilizing digital media and presented as a large-scale mural in Eichstätt, Germany
Who: Middle school students collaboratively creating works of art using techniques taught by Japanese artist Hiroyasu Tsuri through virtual communication applications
Impact:
- *Exercising transformative competencies, specifically autonomous action coupled with collaboration, creative problem solving and civic agency*
- *Embracing new media for expression and creative output*
- *Understanding new cultures and co-agency across borders, irrespective of physical barriers*
- *Increased confidence and student well-being*
- *Proud ownership of co-generated work of art and accountability for its output*

At Mittelschule Eichstätt Schottenau, a middle school in the state of Bavaria in southern Germany, students aged 10 to 12 virtually joined Japanese artist Hiroyasu Tsuri and Spoke Context to create a collaborative work of art using both analog and digital art making techniques. Participating virtually in the classroom from abroad, Tsuri led students in various art making tutorials during a multi-day project which enabled them to not only learn from him, but also interact with him, share their work and observe him co-creating works of art simultaneously.

The final work of art, a film installation comprising the group's analog and digital art making efforts and Tsuri's artistic contributions, was projected in large scale onto the main wall of the Catholic University of Eichstätt-Ingolstadt's central campus courtyard, a place that is open to any passerby or member of the community. Students practiced applying transformative competencies in a real-life setting and experienced how collective, creative, solution-oriented efforts can achieve remarkable collaborative results.

Transferable Principles: Tenets for Creativity-Based Alternative Learning Environments

The microcosm created by public art initiatives is only one example of a creativity-based alternative learning environment and serves as a reference point for other intervention models striving towards similar goals. Core tenets of creativity-based alternative learning environments can be transferred to a multitude of disciplines, whether it be design, architecture or sciences, to create learning premises which exercise transformative competencies and prepare young learners for meaningful participation in life. Regardless of the conduit at hand, key characteristics such as the mimicking of a holistic system, the creation of an asset-focused premise, and the incorporation of public components help to achieve learning outcomes that are particularly suited for the global demands young learners must contend with.

A) Create an environment which mimics an entire system

The goal is to provide learners with the opportunity to practice being in the world, to prepare them for their role in society, their civic responsibility and their engagement in the economy. Learning environments which mimic life outside of the classroom can better prepare learners for successful participation in every facet of society.[38] Creating a system in its entirety provides access points for engagement for everyone involved. There is a role for everyone to assume, exhibiting systemic interdependence and gaining a deeper grasp of the causal link between actions and the way they affect the system as a whole.

B) Create an asset-focused learning environment

Creating an asset-based premise allows learners to work through challenges with heightened ease by placing an emphasis on their talents, strengths and joys while engaging in a positive environment.[39] Drawing from Positive Youth Development theory, 'asset-based' purports that by focusing on assets at hand rather than on deficits, a mindset often associated with 'problems,' or the need for 'problem solving,' will help young learners obtain the habits of mind and skills needed to succeed.[40] The more the problem solving process can be connected with positive premises and exercises within a safe, asset-focused en-

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38   Cf. Arnold & Wade, 2015, pp. 669–678.
39   Cf. Damon, 2021, p. 13, 17, 19, 22.
40   Ibid., p. 13, 17.

vironment, the more learners are inclined to act with resiliency and persever-
ance and derive enjoyment from their work and problem solving.

C) Make it public

When a learning environment has a public engagement component, it serves
as an entry point into the world and invites learners to practice engaging
with their communities and society in a broader sense. Offering young learn-
ers a direct entry point for engagement and an opportunity to raise their
civic voice can help them gain a deeper understanding of 'otherness' and of
how working together in society can establish and secure a stronger, equita-
ble society where voices are represented and heard. Especially communities
undergoing a period of fundamental cultural, socio-economic and/or demo-
graphic change can benefit from an asset-focused, youth-driven message pro-
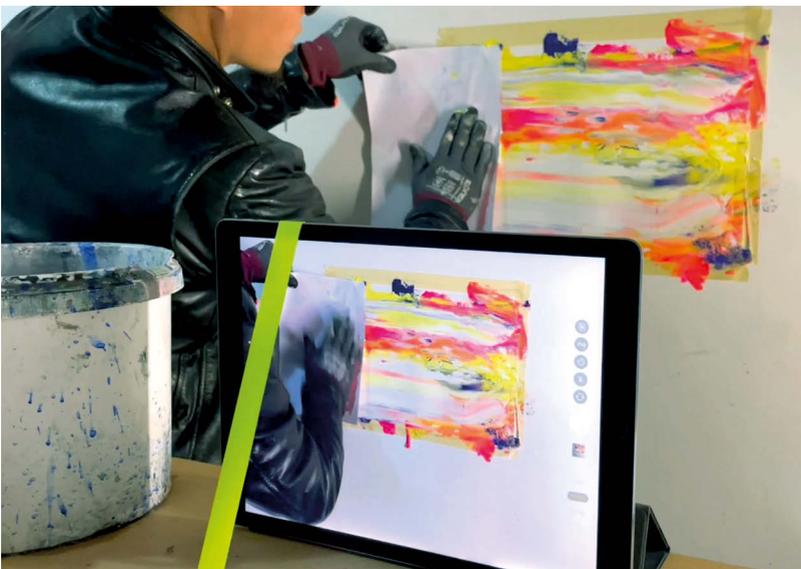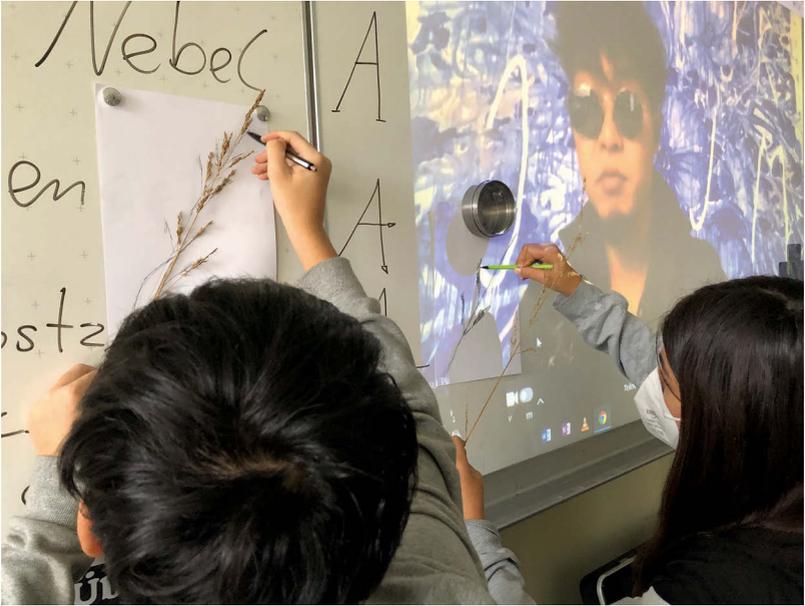vided by an alternative learning environment.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

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Figures

Fig. 1–4: Students at Mittelschule Eichstätt Schottenau creating artwork at the intersection of analog and digital engagement with artist Hiroyasu Tsuri. Photo © Spoke Context gUG, November 2021.