The Critical Role for Young People and Schools in Resiliency Planning

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Demographers predict that people under the age of 18 will comprise 60 percent of the population of U.S. cities by 2030.[1] Despite this trend, recognizing the critical role that young people and schools can play as stakeholders in community planning–especially with respect to climate resilience and adaptation–continues to be a major blind spot for policy makers. The Center for Cities + Schools at the University of California, Berkeley (CC+S) has attempted to address this void through the Youth-Plan, Learn, Act, Now! action research initiative (Y-PLAN). For nearly 20 years, Y-PLAN has empowered thousands of low-income young people of color–ages 5 to 25–to tackle authentic development challenges in their communities and to interact with city planning policy makers about their concerns. Issues they have investigated have ranged from housing displacement to transportation access to climate change–through civic learning experiences largely in public school classrooms around the Bay Area, across the U.S., and around the world.

Demonstrating an innate understanding of resilience, Y-PLAN participants explore the critical role of home, of connection to place, and of social ties in developing an adaptive capacity to natural, social, and political factors. Young people frame community resilience broadly–as a community often thriving in the face of adversity. When invited to collaborate with professional planners and policy makers, students offer a depth of analysis on issues ranging from housing to healthy food access, waterfront accessibility to carbon emissions, poverty to urban violence to gentrification, and they situate us all as partners in a larger community of practice. By embedding schools and young people into the fabric of community resilience work, we not only benefit our children but also allow them to help us solve the most vexing challenges of our time.

Pieces in the Resilience Research Puzzle

The contemporary resilience field is largely focused on two main concepts: urban resilience and community resilience. Both of these categorical definitions build on earlier conceptual frames that describe resilience as a speedy return to a single "equilibrium" or the status quo. However, in the majority of low-income communities of color, such as those engaged in Y-PLAN, the status quo is not an acceptable condition for children and youth to

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1   Wright, H. et al. "Cities Alive: Designing for Urban Childhoods," ARUP (2017), p. 7, available at https://www.arup.com/-/media/arup/files/publications/u/cities_alivedesigning_for_urban_childhoods.pdf.

grow up in. Many researchers and practitioners recognized this reality and developed other theories of resilience and adaptive capacity that took this concern into consideration, ultimately recognizing the value of transformative adaptation over single equilibrium resilience.

Urban Resilience

In 2016, social-ecological researchers conducted an extensive review of the resilience literature, covering 172 studies with 25 distinct definitions of urban resilience.[2] They found that these definitions differed significantly across critically important categories, from the definition of the term "urban" itself, to the conception of "equilibrium," to the timescale needed for action. After identifying six such conceptual tensions that a complete definition should address, they defined urban resilience as "the ability of an urban system—and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales—to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity."[3]

This definition is notably similar to late stage definitions of urban resilience as "the ability of an urban system or city to respond to the new requirements imposed by internal and external shocks or change processes by learning, adapting, reorganizing, and transforming its subsystems to take advantage of new opportunities."[4] Both definitions consider the city as an ecosystem and allow for resilience to be demonstrated as an informed return, change, or transformation to an improved state. As future transformative states are highly contested, urban resilience has fallen by the wayside in favor of a body of knowledge framing transformative adaptation and adaptive capacity.[5]

Community Resilience

While urban resilience has become a minor concept, community resilience has developed a mature body of scholarship in both theoretical and empirical terms. However, the diversity of community resilience concepts can be overwhelming to casual practitioners. To wit, community resilience draws from both "psychological resilience," which considers an individual's capacity to deal with adversity or change, and "disaster resilience," examining how systems respond to disasters. Community resilience, therefore, is the "capacity of the social system to work toward a common objective … consider[ing] both system characteristics that support change and the processes through which agency can be created and enacted so as to retain a community's core structures and processes." Essentially, what distinguishes community resilience from urban resilience in these definitions is community resilience's

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2   Meerow, S., Newell, J.P., and Stults, M. "Defining urban resilience: A review," *Landscape and Urban Planning*, 147 (2016), pp. 38–49. doi:10.1016/j.landurbplan.2015.11.011

3   Ibid, p. 29.

4   Davidson, J.L. et al. "Interrogating resilience: toward a typology to improve its operationalization," *Ecology and Society*, 21(2) (2016), table 1. doi: 10.5751/ES-08450-210227

5   Ibid, p. 3.

consideration of the people involved, their agency to effect change, and the value of the elements of their culture that must be preserved for a system to demonstrate resilience functionality. This is a crucial distinction for the concept of community resilience.

Community Resilience and Urban Youth

Y-PLAN recognizes the need for a shift in the relationships between young people and those with the power to affect community resilience and climate adaptation. This is especially true when considering that urban youth tend to differ from their civic leaders not only in age, but also in race and socioeconomic status. While Y-PLAN works primarily with low-income students of color across the U.S. and abroad, the professionals and practitioners it partners with are majority white, middle-income men and women, who often hold advanced degrees in their fields.

The challenge is how to forge understanding between these youth and the adults in positions power despite the lack of shared experiences and aligned socio-economic backgrounds. This gap in understanding, perspectives, and priorities then contributes to the far too frequent disconnect between policies and young people's everyday lives. For example, bike share programs are launched that require credit cards to use, and rapid transit agencies charge full fare for anyone over the age of twelve. What is the result? Teenagers are excluded from participation. When students have been tasked with mitigating the impacts of sea level rise, the gap in priorities is highlighted, and Maslow's hierarchy of needs comes into play. One Y-PLAN teacher put it succinctly, "[g]entrification is a really big issue, racism is a really big one too ... If they're worried about getting shot at today, they're probably not worrying about [sea level rising] tomorrow."[6]

Bridging the Gaps

Through Y-PLAN, we have seen how this gap can be bridged by forging communities of practice that leverage civic learning experiences for young people and critically examine the equity concerns embedded in the existing understanding of what we mean by resilience. What distinguishes Y-PLAN action research initiatives from many other youth engagement programs is a set of essential conditions shared by all Y-PLAN work, in the classroom, in the boardroom, and in city hall:

- An authentic civic client who seeks recommendations for addressing current, implementable questions/challenges in their community;
- A curriculum designed to optimally engage classrooms in critical inquiry within a public school setting;
- Adherence to Y-PLAN's rigorous five-step methodology; and
- A social justice and equity focus.

6   Y-PLAN teacher interview.

Y-PLAN is grounded in critical social theory that bridges the fields of education and city planning.[7] Communities of practice recognize that "building complex social relationships around meaningful activities requires genuine practices in which taking charge of learning becomes the enterprise of a community."[8] By building those "complex social relationships" between civic leaders and young people around "meaningful activities" like creating a more resilient city, with "genuine practices" such as learning from lived experiences, primary source data collection, and best practices scans, that work can begin to be recognized by all members of the community of practice as a shared directive—"the enterprise of a community" that will bring out the best abilities of each member to develop a better product together, to the benefit of everyone.[9]

A prime illustration of how to engage students and bring them to the table is at Richmond High School, in California. Through Y-PLAN over 250 students worked as consultants for the Richmond city manager to inform the Climate Action Plan (CAP). Working over the whole semester, teams of students made recommendations to address climate change impacts on their home, local business, school, and the city overall. What attracted statewide attention to their work was how vividly the students were able to express how invisible they and their everyday lives felt within the broader CAP process. Students expressed concerns around housing displacement, lack of access to safe transportation, healthy food and safe drinking water. A summary of students' recommendations was included in the final Richmond CAP. Short-term actions were also implemented, ranging from shifting from the use of plastic water bottles to hydration stations, to new bike racks to solar bus stops. As former city manager Bill Lindsay said at the final event, "we have learned so much from the students—most especially how much we overlook when not engaging them in planning for our future."

Equity and Civic Learning about Resilience

While a community of practice, buoyed by civic learning, can contribute to community resilience, another central tenet in the Y-PLAN initiative has been a focus on equity. While communities of practice, civic learning, and resilience all have the potential to address the current inequities in our society, they do not necessitate equity. A community of practice, in itself, does not require a power differential amongst its members, and certainly not one as vast as that between low-income young people of color and the leaders of their cities. Similarly, civic learning is essential for all students, regardless of their socio-economic status or race. Meanwhile, equity often remains a sidebar or removable section in the aforementioned conversations around community resilience.

7   McKoy, D.L. and Vincent, J.M. "Engaging Schools in Urban Revitalization: The Y-PLAN (Youth–Plan, Learn, Act, Now!)," *Journal of Planning Education and Research*, 26(4) (2007), pp. 389–403. doi: 10.1177/0739456X06298817

8   Wenger, E. *Communities of Practice: Learning, Meaning, and Identity*, Cambridge University Press (1998), p. 272.

9   Ibid.

Perhaps most saliently, this omission is evident in the definition of resilience itself. The conception of resilience as necessarily positive is held to be generally true across social, physical, and biological disciplines, as they start from the assumption that either the original state was desirable, or that a resilient system will adapt or transform into a more desirable state. This is a deeply flawed assumption. Questions of "resilience for whom" must be considered before proceeding under the assumption that resilience is by definition, positive.[10] In fact, "efforts to build resilience should focus on transforming systems that are inequitable (e.g., poverty traps) or hinder individuals or communities from developing adaptive capacity," recognizing that "urban resilience is inevitably a contested process in which diverse stakeholders are involved and their motivations, power dynamics, and trade-offs play out … [and] shaped by who defines the agenda, whose resilience is being prioritized, and who benefits or loses as a result."[11]

The consideration of equity in transformative adaptation should be considered not only in terms of outcomes, but also in terms of the impact of power distributions on decisions of desirability.[12] In other words, who decides what adaptations should be taken? Any transformations that occur may be hardest on those with the fewest resources as those with the most capital are best able to adjust to societal transformation.[13]

An assumption of resilience as a necessarily positive construct ignores the very real questions and concerns of the thousands of low-income Y-PLAN students of color. They acutely know through their own lived experiences, and framed through civic learning opportunities, what to ask within their trusted communities of practice:

- If we improve our community, will we still be able to afford to live in it?
- Why is our neighborhood at the greatest risk to natural disasters like earthquakes, sea level rise, and flooding? And what can we do about it?
- Why are we focused on planning for the future when we don't have healthy food or stable shelter or safety from gun violence today?
- We may not be able to define resilience for you, but we can tell you that we are resilient.

The Rigorous Five-Step Y-PLAN Methodology

Y-PLAN action research projects engage students of all ages in a rigorous five-step methodology. Educators guide students through this process with the help of the Y-PLAN Instructor Guide and accompanying Student Field Guide. Y-PLAN focuses on the community as a text for core learning, producing positive outcomes for both students and the neighborhoods in

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10   Meerow, S. et al. "Defining urban resilience" (2016); Davidson, J.L. et al. "Interrogating resilience" (2016).
11   Meerow, S. et al. "Defining urban resilience" (2016), p. 46.
12   Adger, N.W. et al. "Successful adaptation to climate change across scales," *Global Environmental Change*, 15(2) (July 2005), pp. 77-86, available at https://www.sciencedirect.com/science/article/abs/pii/S0959378004000901. doi: 10.1016/j.gloenvcha.2004.12.005
13   Y-PLAN teacher interview.

which they live. The students are building college, career, and community readiness, while helping contribute to healthy, equitable, and joyful cities, and all stakeholders are learning to understand each other's perspective.

In phase one, Start Up, students uncover their own strengths and those of their team. They learn about their Y-PLAN challenge directly from their civic clients: city and regional leaders who pose an authentic question for the young people to help solve. In recent Y-PLAN work in New York City, for example, students partnered with the Brooklyn borough president's office to improve access to healthy food while reducing waste. Japanese Y-PLAN students, likewise, informed the programming of public space in post-tsunami Kamaisha where they've committed to build no housing on the water's edge, while Green Academy sophomores from Skyline High School engaged with the Oakland Planning Department to design a more sustainable and vibrant city center.

In phase two of the Y-PLAN methodology, Making Sense of the City, students take to the streets to map their community, collect relevant data, and conduct interviews and surveys with residents and stakeholders. They consider the strengths, weaknesses, opportunities, and threats they find, and gather inspiration from local, regional, national, and global best practices before moving into phase three, Into Action. During this phase, students review their primary and secondary source research as they engage in a design charrette process to guide their brainstorms and help them create plans for change, weighing the costs and benefits of short- and long-term recommendations.

Students then prepare and present their policy recommendations to their civic clients as part of phase four, Going Public. Panels comprised of city and education leaders offer students verbal and written feedback based on the academic skills demonstrated by their presentations, as well as the potential impact of their proposal on participants, processes, policies, and places, ultimately considering the promise of their recommendations to help build a healthier, more equitable, and joyful community. Students' work does not end with the final presentations, but rather, phase five, Looking Forward and Back, allows students the space for reflection that is essential both for cementing the skills and knowledge they learned from the project and also for structuring the shared accountability for next steps of implementation.

Case Study

In one recent project, during the spring of 2018, a science classroom of high school students from East Palo Alto Phoenix Academy (EPAPA) were tasked with developing proposals for a more resilient East Palo Alto. As in all Y-PLAN projects, students started phase one by connecting with their lived experience through writing "Where I'm From" poems and conducting an activity situating themselves in the city. During phase two, they mapped their community, analyzed its strengths, weaknesses, opportunities, and threats, designed and conducted resident surveys and stakeholder interviews, and researched global

best practices for sea level rise, housing, transportation, and education.

As the EPAPA students began to develop recommendations as part of phase three, a team of professional planners, designers, and environmentalists visited their classroom on a rainy March afternoon to learn from and with them. After a working session in the classroom, several students stayed after school to lead the adults two blocks from their campus to show the place that they considered the heart of their community. When they reached the road's end, a flooded trail greeted the group, and the adults, wearing dress shoes, stopped walking. Unwilling to end their tour without reaching its highlight, one student, Santiago (Santi), turned abruptly to the right and gestured for everyone to follow.

"I know another way. I live right over there," he pointed, and without looking back to allow for dissent, he led the group through a break in the fence, along a makeshift muddy path, skirting the bulk of the flooding, toward a steeper route to the berm. Along the way, students described the dire need for affordable housing in the face of displacement from both gentrification and sea level rise, each telling his or her own story of overcrowding: of fourteen people in a one-bedroom apartment, of families living in unfinished garages, of living arrangements with no access to a kitchen, of paychecks where more than 70 percent was spent on rent.

Once the teenagers had helped the adults scramble up the slippery embankment, they stood together, perched atop the East Palo Alto Baylands Trail, overlooking the expansive tidal flats. Santi and his classmates pointed out their soccer fields, the shore birds that no longer flee when they jog by, the tidal flats, and ultimately the bridge where the trail crosses the water and passes out of sight. One of the professional planners in the group offered the possibility of a water's edge, environmentally friendly development as a solution to alleviate the housing burdens the students had just described. With a pause, the young people slowly, emphatically shook their heads. Santi explained that "so much already lives here. The egrets, the squirrels, all of them. They've lived here longer than any of us. We can't steal that."

Over the following weeks, phase three continued, and students held brainstorming charrettes to develop proposals with recommendations including elevated housing structures, unifying mixed-income apartments, and low-income condos affording local residents home ownership benefits. They recommended a transportation corridor redesign to ease congestion, reduce emissions, and build community, and they designed a Mexican style *Plazita* to spark the local economy and highlight its culture. Additional professionals visited their classrooms to listen to their ideas and help push them further, asking for their analysis of costs and benefits and consideration of outside constraints, from zoning to land ownership.

As students moved into phase four, they created slides, models, posters, and policy briefs, and presented their proposals to regional leaders at University of California, Berkeley alongside their Bay Area peers, to their own city council and city manager a few blocks from their school in East Palo Alto, and in a boardroom at the nearby Facebook headquarters. At the city council meeting, one council member pressed the students further still, asking if they were given the opportunity to push one, and only one, recommendation through, which

it would be. Santi once again stepped forward for his peers, explaining eloquently to the council that despite their affinity for the *Plazita*, with its ability to drive economic development while maintaining a cultural identity, housing must be prioritized above all else. Finally, during phase five, students not only completed written reflections and discussions, but fourteen students were hired as summer interns to research housing conditions in their community.

Conclusions

As resilience and community resilience become more resolute in their analysis and in practice, consideration should be given to the proposition that young people innately understand the concepts of resilience with a great deal of clarity. Resilience, whether for an individual or across a system, requires stability, it requires understanding, relationships and trust, it requires inclusion and responsibility, and it requires connection.

We simply won't create needed change in our cities—or be able to truly address everyone's concerns—without the insight and contribution of young people. This is critical for two reasons. First, as a society we must invest in cultivating a sense of agency in young people through their community and civic engagement on topics of interest to them, such as the effects of climate change. Second, city planners in the community development field must integrate young people's insights to make better decisions for everyone—not just the wealthier classes who can afford to remain in cities as part of climate gentrification.[14] Moreover, our public schools offer a unique opportunity for community development to reach our nation's young people, equitably.[15]

Just like the EPAPA students, the more than 10,000 students who have engaged in Y-PLAN action research initiatives throughout the last two decades share both a first-hand understanding of the implications of displacement from environmental hazards and gentrification through their lived experiences, and an innate understanding of resilience through their own embodiment of it. Throughout their work, students share intimate stories of the displacement of friends, of families, of themselves, stories of food insecurity and homelessness, of inequitable educational opportunities.

By building on their lived experiences, by collecting primary source data only they can generate, and by working as part of a community of practice with city leaders in initiatives such as Y-PLAN, they allow us to improve our cities together. The heart of their proposals comes not in spite of the current conditions in our cities, but because of them. As our field searches for ways to advance community resilience, the visions of our young people,

14 Keenan, J.M., Hill, T., and Gumber, A. "Climate gentrification: from theory to empiricism in Miami-Dade County, Florida," *Environmental Research Letters*, 13(5) (April 23, 2018), available at https://iopscience.iop.org/article/10.1088/1748-9326/aabb32.

15 McKoy, D.L. "The Community Development and Education Connection: Reviving Cities, Transforming Schools and Engaging Young People in the Process," *Community Investments*, Federal Reserve Bank of San Francisco, 19(2) (2007), pp. 20-23.

informed by lived experience and unbounded in their creativity, can provide the bridges we need between sectors, between communities, between the natural world and the built environment, and between the realities of today and our visions for the future. The essence of community resilience is found in young people. They hold the missing piece of the puzzle we struggle to complete. They are our present and our future.

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