

PURPOSES

Our study explores how authority is distributed and responsibility is collectively taken up in settings when groups of young people are positioned to teach other young people.

THEORETICAL FRAMEWORK

Youth Pedagogical Development (YPD) is a developing theory of how young people learn to teach other young people in community-based informal learning settings (Authors, 2023). We conceptualize development as the socially, culturally, and historically situated processes through which individuals learn together in joint activity, change, and in so doing, transform those processes (e.g., Vygotsky, 1978). YPD helps explain how youth learn to educate as they engage with disciplinary ideas and attune to pedagogical strategies that support learning and engagement for others. Youth's engagement as educators also transforms the ways in which they come to identify as teachers, learners, and doers of, within, and across academic disciplines (Author, 2016).

While there has been significant research on how people learn to become and develop as teachers in schools (e.g., Biddle et al., 2013), there is relatively little when considering how young people in informal settings develop as educators, especially in STEM content settings in which two of the organizations included in this study work (e.g., Chavez & Soep, 2005; DiLisi et al., 2011). When young people, rather than adults, are positioned as educators, they often undergo a different process of learning to teach that centers youth identity and culture as integral to their pedagogy (Moses & Cobb, 2001). In addition to youth identity and culture, YPD highlights three components through which youth teaching can be explained: 1) *distributed authority and collective responsibility*, 2) *responsive pedagogy*, and 3) *interwoven teaching and learning*. The focus of this paper is to dive deeper into distributed authority and collective responsibility.

By distributed authority, we mean that multiple people are simultaneously responsible for the activities of a group. Leadership and the right to assert leadership, knowledge, or decision-making is shared among some or all group members. Distributed authority includes *epistemic authority*, or the right to know and to not know (Rosebery et al., 2010). Distributed authority recognizes that agency in a group setting is relational—that is, while individuals express agency, those actions reflect how individuals relate to one another and have consequences for the group's collective activity.

Collective responsibility is closely related, but slightly different. It means that group members are answerable to one another and, in youth teaching settings, to the people they are teaching. This pairing of commitments is a sharp contrast from most learning settings for young people in which young people are often not ascribed authority for knowing (Bang et al., 2012) and are asked to be solely responsible for themselves and their own learning. It also reflects a commitment in which one is responsible for the other members of one's community writ large, in which the community's work (e.g., educating children) becomes the work of individuals in

concert with others (Author, 2016). People learn distributed authority and collective responsibility. Thus, they are developmental trajectories, not static concepts.

RESEARCH QUESTION

In what ways do youth educators practice forms of distributed authority and collective responsibility? How do those practices contribute to youth learning to become educators of other youth?

METHODS

This study is part of a larger project on youth near-peer teaching and learning in informal STEM educational environments. We partnered with three community-based organizations that hire youth aged 14-22, predominately Black, Brown, and low-income to teach other youth in outside-of-school spaces. The Young People's Project (YPP) employs college-age and high school-age mathematics literacy workers (CMLWs and MLWs respectively) to teach middle- and elementary-age children mathematical concepts in outreach sites at collaborating organizations. Learn 2 Teach, Teach 2 Learn (L2TT2L) does the same teaching about digital fabrication technologies and related ideas. The Teacher Learning Program (TLP, pseudonym) employs college-age mentors to work with high-school age children as part of a teacher pipeline program for the district.

Over the course of three summers and two school years, we collected over 300 hours of ethnographic fieldnotes (Emerson et al., 2011), video and audio recordings, and interviews about how young people learn to plan, teach, and reflect on their teaching practices when asked to teach other youth. Our team includes former and current youth teachers, researchers, graduate students, undergraduate students, former classroom teachers, youth teacher organization leaders, and mixed gender/ethnicity/age ranges that help to provide multiperspectival analysis of data and contributes to the trustworthiness of our findings (Larkin et al., 2019). Through abductive analysis (Timmermans & Tavory, 2012) which includes iterative deductive and inductive coding processes in which we started with our own theories about what contributed to YPD and then used that structure to engage in structured coding open to new interpretations as well.

For this paper, we randomly selected three fieldnotes from two organizations (which together represented 80% of all fieldnotes and two fieldnotes from the third (20%) for a total of eight fieldnotes from the complete data corpus of 83 fieldnotes for a more detailed deductive coding analysis. Different researchers at each site wrote fieldnotes from observations of youth teachers' planning, teaching, and debriefing activities over one summer. Each fieldnote was then reviewed by a different pair of research team members and coded for the three themes of YPD. We then reviewed all 112 excerpts tagged "distributed authority and collective responsibility" to construct more nuanced themes within them. Our results section begins by highlighting some of the more salient sub-themes and illustrates a few representative examples. Personal names are pseudonyms.

RESULTS & DISCUSSION

Part of learning to teach as a group involves developing orientations to, and concomitant practices of, distributed authority and collective responsibility. Not surprisingly, many different developmental trajectories are possible. Through our analysis, we created two themes related to distributed authority—turn-taking leadership and negotiating power with collaborating organizations—and two kinds of collective responsibility—facilitating the movement of the lesson and knowing the content.

Distributed Authority

There are different ways in which distributed authority can manifest. Two of them are: 1) how youth from our partner organizations negotiate power with staff from the organizations that run the outreach sites they are serving and 2) how different facilitators rotate from one activity to the next.

Negotiating power.

At TLP, the high-school youth educators who teach social justice lessons to campers at their outreach site were having trouble getting the young campers to pay attention. The adult camp counselors at the site stepped in:

One of the groups is having a dispute. The counselor in that room intervenes and one of the campers leaves the room. The counselor reprimands another of the campers, somewhat loudly and in full view of the rest of the group. The other three campers from that group sit down in the corner. There is some talk by the counselor about whether or not they will be able to go roller skating this afternoon in light of whatever just happened. Daniel, a youth educator, comes over and encourages the three girls sitting in the corner to stand up and try again, which they do. (TLP_08/02)

In this excerpt, Daniel understood that in their role as a visiting educator in the space, they had to step back to let the counselors handle the situation. After the counselor finished, Daniel stepped in and took a responsive approach to re-engage the student. In this case, power is not explicitly negotiated—the counselors have authority over the campers—but is mediated by the dynamics between the outreach organization and TLP as well as those between Daniel and the young people he was educating. Development of distributed authority is dependent on many levels of relationships.

Turn-taking leadership.

When youth educators take turns facilitating or otherwise leading activities during an outreach lesson, they demonstrate how authority for leading, and knowing, is distributed across

the members. The following excerpts were taken from fieldnotes during one of YPP's first times at the outreach site that summer.

Dennison [CMLW] takes the lead and says that students will now switch games to Eleven. He passes on the leadership role to an MLW.

[...]

Kanissa [MLW] takes the lead for the next game. She explains the directions, but you can tell that the students are starting to get a little tired of the games. The energy has shifted in the room- a bit louder, even some MLWs are playing together and distracting one another while Kanissa is trying to explain the game. Ariel [CMLW] calls them out and says, "Gabe and Jonathan seriously." You can tell they felt bad, and they also rejoined.

[...]

Ariel regathers the group to close out. She says that this is our time together, we will be here on Mondays so we will get to know one another, play games.

(YPP_07/18)

In the previous examples, the more experienced youth educators, CMLWs Dennison and Ariel, led the opening and closing parts to the session while the more inexperienced MLWs led the main game. Who is leading what parts of the lesson is usually determined before youth reach the outreach site. For instance, someone leads an icebreaker, another person or two leads a game, and so on. Oftentimes, an explicit verbal cue is given as one youth educator "passes the mic" to the youth teacher who is set to lead the next activity, as youth educators gain more experience however, they are able to recognize their cues and take more initiative to begin without being called on.

Collective Responsibility

As a result of more experienced leaders making space and newer leaders taking initiative, collective responsibility begins to develop. Ways that it develops include: 1) facilitators begin to figure out how to support the activity when they are not leading, and 2) shared responsibility for content knowledge.

Supporting the activity.

Non-leading facilitators at YPP share responsibility in bringing the materials to class for the day, distributing those materials, and participating in the activities themselves as a form of supporting the management of the younger participants at YPP outreach sites.

Adam and Salina hand the MLWs materials for their next activity. They have all of the students re-engaged for the next game. No one is on beanbags. Salina goes over the directions. While this is happening, the MLWs are standing with students. Saba and Sasha are standing closer to the bean bags. (YPP_07/28)

By standing amongst the younger outreach participants, Saba and Sasha supported the activity by using proximity and modeling to keep the participants off the beanbags. In contrast to the example three weeks prior when the non-leading MLW had been playing around, the excerpt demonstrates that responsibility for educating at outreach is shared among all members of the group, even if it means taking on different roles.

Sharing content knowledge.

At L2TT2L, the responsibility of college mentors to teach youth teachers how to use the 3D printer was shared:

Zakari helps Samantha with the dog-tag making process by opening up the software and finding Samantha's preferred image of a football. While trying to teach Samantha how to use the software and machinery, Zakari realizes that he had forgotten a few things about how to both use the software and machinery in order to print out an image correctly. He calls on Talia to help the both of them out because he claimed that Talia had used the machine for three straight weeks. (L2TT2L_06/01)

Youth learn to call on each other for knowing and for teaching. One person not only does not have to know everything about what they are teaching but they have a responsibility to teach others. They are not just learning for themselves. They are learning to be able to share knowledge about advanced manufacturing, math, or social justice with others in their community so that they too can know. It is advancing the ethic of collective responsibility.

SCHOLARLY SIGNIFICANCE

This work contributes to the conference theme of dismantling racial injustice and constructing educational possibilities because it offers possibilities for constructing agentive, empowering learning environments in which youth of color take collective responsibility for educating their own communities outside the historically oppressive systems of schooling.

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