"If Others Are Doing It, So Can I": Leveraging Communities of Practice to Introduce Connected Learning into Small and Rural Libraries

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ABSTRACT

We report on a case study investigating how library staff serving small and rural communities engaged with connected learning (CL) ideas during a two-year researcher-practitioner community of practice (CoP) that focused on revising a CL-focused professional development toolkit. We found that library staff engaged in a process of collective sensemaking that scaffolded their emerging understanding of CL and helped them to develop CL-based teen programming. However, this collective sensemaking remained in tension with entrenched mind-sets about library-based teen services that persisted among library staff and their respective leadership. Although the change we documented was incremental rather than transformative, it was meaningful. Our analysis demonstrated how a consistent, long-term process of collective sensemaking helped library staff shift their thinking about approaches to teen services and built confidence to articulate the value of CL. This case study represents one approach for leveraging CoPs to facilitate change in teen services in public libraries.

A s libraries expand beyond their traditional role as centers of knowledge dispensation, library staff and researchers are rethinking the purpose and format of youth-oriented services (Braun et al. 2014).[1] Several libraries across the United States have taken inspiration from the connected learning (CL) framework (Ito et al. 2013), an interdisciplinary approach to learning that places youth, their communities, and cultures at the center of learning experiences and emphasizes connections across multiple formal and informal learning contexts.

1. We intentionally use the term *services* rather than *programs* throughout this article. This choice reflects an understanding that youth library staff often concentrate on the end goal of a specific CL program without considering the wider scope of services available. By using *services*, we emphasize a more comprehensive approach that includes not only individual programs but also the various elements involved in designing, decision-making, and implementing CL. This broader perspective helps to embed a more inclusive and expansive vision of what CL can be for libraries, teens, and communities.

In recent years, many public libraries have explored CL approaches in their teen services programming (Bilandzic 2016; Hoffman et al. 2016; Davis et al. 2018; Davis and Subramaniam 2022). Initiatives like the Teens Leading Change (TLC 2022) as well as teen workshops at libraries around the country (CPL 2024; HCLIB 2024) seek to redefine the purpose, structure, and content of youth-focused library services and to better serve youth and their communities by promoting rich learning opportunities through the library (Hoffman et al. 2016). However, the factors that determine whether and why such efforts succeed or fail remain opaque. Additionally, many available examples of CL occur in well-resourced urban libraries, even though small or rural libraries have the potential to implement CL as well. Factors influencing success or failure may manifest differently in these different contexts. Further investigation is needed to inform future efforts that incorporate a CL approach into all youth services programming.

We conducted a case study involving a two-year researcher-practitioner collaboration that brought together library staff serving nine rural communities and a research team with expertise in CL. The collaboration took place in the context of a community of practice (CoP) whose work centered on redesigning a set of professional development resources and using them to introduce CL into library staffs' existing teen services. The following research questions guided the study:

(RQ1): How did library staffs' understanding of CL evolve in the context of their participation in the researcher-practitioner CoP?

(RQ2): How did library staffs' understanding of CL shape how they sought to apply this framework to their specific library context?

We found that, through their participation in the two-year researcher-practitioner CoP, library staff engaged in a process of *collective sensemaking* in which their ongoing conversations and collaborative work scaffolded their emerging understanding of CL and helped them to develop CL-based teen programming. However, this collective sensemaking remained in tension with the entrenched mind-sets about library-based teen programming that persisted among our library staff and the leadership in their respective libraries. This tension limited, but did not completely block, staffs' understanding of CL as well as their related programming ideas and efforts.

This work contributes new insight into both the value and limits of public library staff participation in a community of practice focused on reimagining teen services. In the context of well-established library structures, practices, and ways of thinking, this study demonstrates how falling short of wholesale transformation still carried value by shifting library staffs' focus, however incrementally, toward a successful CL-based approach to teen services. Library staff will be able to use these insights to guide efforts to reimagine teen programming using a CL approach. In addition, we believe the insights can inform efforts to introduce innovative services more broadly (i.e., beyond CL) into libraries and other informal learning contexts.

Related Work

The Connected Learning (CL) Framework

The CL framework articulates a vision of learning that is: (1) grounded in young people's interests and passions, (2) supported by relationships with peers and mentors, and (3) connected to future opportunities (see figure 1) (Ito et al. 2013). This approach aims to prepare youth for life after high school by equipping them with useful skills and literacies (Hoffman et al. 2016; Subramaniam 2016) and bridging the gap between their personal interests and more formal educational, civic, and career opportunities.

At the core of CL is an equity agenda focused on youth who are underserved by traditional educational systems (Ito et al. 2013). Aligned with a sociocultural approach to learning (Gutiérrez and Rogoff 2003; Vossoughi and Gutiérrez 2016; Nasir et al. 2021; Herrenkohl et al. 2018), the CL framework recognizes the diversity of young people's cultural identities and contexts and places value on the existing strengths of youth's cultural communities. Within this context, CL prioritizes building connections to future opportunities in academic, career, and civic life (Ito et al. 2013). By integrating youth interests, peer and mentor relationships together with academic, economic, or civic opportunities, a learning experience designed with the CL framework can be engaging and motivating for youth with diverse cultural and socioeconomic backgrounds.
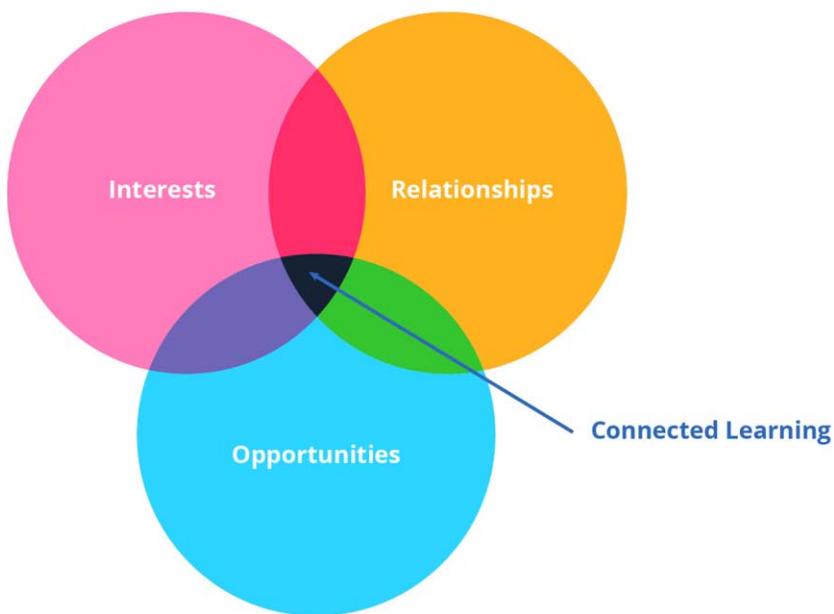

Figure 1. The three elements of the connected learning framework: interests, relationships, and opportunities.

CL is more about creating a specific learning environment than implementing a certain pedagogical approach. Mizuko Ito, Richard Arum, Dalton Conley, and coauthors[2] (2020) describe CL environments as sharing four common elements: *Sponsorship of youth interests* characterizes the adults and adult institutions that recognize and support youth in developing skills related to their interests and connecting them to future opportunities. *Shared practices* include hands-on projects and experiential and project-based learning that involve youth in a community of practice that values and advances their skilled participation. *Shared purpose* describes CL's focus on activities that are not just personally rewarding but that also make a meaningful contribution to a broader community. Lastly, CL emphasizes *connections across settings*, placing youth—rather than institutions—at the center of learning experiences and facilitating connections between youth interests and education and career opportunities. Together, these four elements illustrate how CL emerges over time and with the ongoing support and commitment of multiple stakeholders in young people's communities.

CL and Libraries

Prior work has documented both opportunities and obstacles associated with introducing CL into youth- and teen-focused library programming (Bilandzic 2016; Hoffman et al. 2016; Subramaniam 2016; Davis et al. 2018; Subramaniam et al. 2021). Libraries' transition in recent years toward a greater emphasis on participatory learning—or "doing, together" (Hill et al. 2015)— has opened new potential to support youth's CL experiences (Ito and Martin 2013; Braun et al. 2014). Libraries' position outside the constraints of a standards-driven education system and inside local communities means they can tailor their offerings to patrons' interests and bring together people of diverse ages and socioeconomic and cultural backgrounds (Hoffman et al. 2016). Within this context, many public libraries have started offering participatory-oriented services explicitly designed around CL principles (Hoffman et al. 2016; Ito et al. 2020).

This recognition of libraries' potential as CL hubs is tempered by prior work showing the challenges associated with adopting a new approach to youth and teen services programming (Subramaniam et al. 2018; Ito et al. 2020; Subramaniam and Braun 2021; Subramaniam et al. 2021). Mega Subramaniam, Ligaya Scaff, Saba Kawas, Kelly M. Hoffman, and Katie Davis (2018) documented several factors that make it difficult to implement CL services in libraries, some of which are systemic within library services, such as a lack of funds, time, staff, training, and space, as well as library policies that restrict the use of networked technologies (see also Subramaniam and Braun 2021). In addition, many library staff expressed ambivalence toward structuring teen services in a way that supports young peoples' interests, alongside a lack of confidence with digital technologies. In subsequent work, Davis, Subramaniam, Hoffman, and

2. Kris Gutiérrez, Ben Kirshner, Sonia Livingstone, Vera Michalchik, William Penuel, Kylie Peppler, Nichole Pinkard, Jean Rhodes, Katie Salen Tekinbaş, Juliet Schor, Julian Sefton-Green, and S. Craig Watkins.

Milly Romeijn-Stout (2018) found that these patterns were particularly pronounced in rural library contexts.

These challenges align with Ito et al.'s (2020) reflections on the first decade of CL scholarship. They observe that successful implementation of CL, whether in libraries or other educational settings, requires sustained effort at both an institutional and an individual level. Institutionally, CL requires coordination across sectors and stakeholders. At the individual level, CL invites educators, including library staff, to take on new roles and activities that may stretch them out of their comfort zones.

Method

Case Study Design

The current study explores how a group of library staff working in nine small and rural communities developed a grounded understanding of CL through their participation in a researcher-library staff CoP. We examine how library staffs' evolving understanding within the CoP shaped the way they applied CL in their small and rural library contexts. We employed a case study approach that investigated a two-year research-practice partnership between rural library staff and researchers with expertise in CL.

As a holistic, in-depth investigation of a bounded, naturalistic phenomenon (Stake 1995; Yin 2009; Crowe et al. 2011; Tracy 2019), a case study is well suited to the present investigation. The case we explore in this article comprises the activities and relationships within a CoP involving public library staff working with teens, and library and information science researchers. It is bounded temporally by the two-year period of the project's duration and conceptually by the group's focus on understanding and applying CL principles in the context of teen services in small and rural libraries. The CoP's work was multifaceted and evolved over an extended period, resulting in an extensive and diverse data corpus (see Project Activities and Data Collection for details) befitting case study research.

Participants and Recruitment

The research team included faculty, research scientists, and PhD students at two public universities and a consultant with deep ties to library staff and extensive experience leading research-library partnerships. Three of the team members had led the initial development of a free, online professional development toolkit that helps public library staff introduce CL practices into their teen services. Responding to feedback from library practitioners after the launch of the toolkit in 2019, the research team decided to explore opportunities to update the toolkit so that it was more relevant and useful for the specific contexts of small and rural libraries.

To that end, in 2020, our research team drew on our existing library partnerships (e.g., Association of Rural and Small Libraries [ARSL], Young Adult Library Services Association [YALSA])

and library-based networks to identify a broad range of library staff working in small and rural communities across the United States. Through initial information-gathering interviews, we explored the library staffs' interest in working with us in a sustained manner to adapt a professional development toolkit with the aim of making it more responsive to the specific needs and contexts of small and rural libraries. The informational interviews took place in the fall of 2020 and were conducted virtually with one or two project team members present. Our goal with these interviews was to share information about our project so that potential participants could make an informed decision about whether the project's focus and goals aligned with their own work and goals. We sought to identify a group of library staff who were eager to learn more about CL and try new approaches to teen services in their libraries. We also asked potential participants to confirm that they could obtain administrative support for the project, including time allocated for their work with us.

After discussing all the potential participants as a team, we identified a final group based on these criteria as well as our desire to maximize the geographic and demographic diversity of the populations served by participants' respective libraries. Table 1 includes information about each library staff. All participants were compensated for their time working on this project.

Table 1. Participating Library Staff and the Communities They Served

Library staff pseudonym	Professional role/title	Years in library sector	Geographic region (US)	Approximate population size served by library	Length of engagement with CoP (years)
P1	Young adult services library associate	8	South Atlantic	4,600	1 (2022–2023)
P2	Teen services specialist	5	Pacific Northwest	12,000	2 (2021–2023)
P3	Branch manager	12	Midwest	12,000	1 (2022–2023)
P4	Youth coordinator	4	South	15,000	2 (2021–2023)
P5	Director	20+	South	15,000	2 (2021–2023)
P6	Young adult library staff	17	Midwest	5,500	2 (2021–2023)
P7	Youth services library staff	4	South Atlantic	3,700	2 (2021–2023)
P8	Assistant library director	4	South	22,000	2 (2021–2023)
P9	Director	5	West	2,500	1 (2021–2022)
P10	Circulation clerk/ outreach liaison	2	South	22,000	2 (2021–2023)
P11	Youth services library staff	6	South Atlantic	4,600	1 (2021–2022)

Seven out of the eleven staff participated in the project for the entire two years. Two had to leave the project in the first year due to time constraints (P9) and leaving their position (P11). Due to their departures, P1 and P3 joined the project in the second year. P4 and P5 worked at the same library as did P8 and P10. Changes in CoP composition within this time frame in a library project are common, and most of the researchers and participants were used to this type of turnover. The impact of a CoP member leaving or joining the group was individual-dependent. In some instances, a new member added a new energy, dynamism, or voice that the existing CoP members found inspiring. In other cases, new members integrated their voices more subtly into the existing group.

The research team comprised academic faculty, doctoral students, and a library consultant. All members came to this work with extensive experience in community-engaged research, including the use of participatory methods when collaborating with community partners and library staff. Acknowledging the power differences within the team and within the CoP, we made sure to emphasize that the expertise of the research team complemented the expertise of the library staff. Our knowledge of participatory design allowed us to develop activities that enabled the library staff to more easily share their knowledge and experience working within their rural communities.

Project Activities and Data Collection

Data collection for this case study started during the recruitment process in fall 2020 and extended throughout the duration of the project, which culminated in a virtual symposium, held in March 2023, that was cofacilitated by our research team and the participating library staff.

Our work with the library staff started with a virtual orientation meeting in January 2021, during which we facilitated introductions, shared the vision for our work together, and reviewed the existing toolkit. During this meeting, we introduced the concept of a CoP and how it would guide our work together over the next two years. As a type of learning community, a CoP (Wenger 1996; Li et al. 2009) includes people who are connected by a common interest or goal and who define themselves dynamically by the roles and responsibilities they hold within the community (Li et al. 2009). The situated learning that occurs within CoPs is grounded in social relationships as experts and novices share knowledge and experiences with one another over an extended period (Lave and Wenger 1991). In the context of the current project, the CoP model provided the structure and space for both the research team and library staff to share their expertise and learn and share their expertise with each other.

The core of our work with the library staff consisted of monthly, two-hour CoP meetings, held virtually over Zoom. During the first year of the project, each meeting focused on reviewing and updating the existing toolkit to make it more relevant and useful to library staff serving small and rural communities. We then engaged library staff in a variety of interactive activities inspired by participatory design methods (DiSalvo et al. 2017). The purpose of these activities

was to develop library staffs' understanding of CL concepts and support their thinking about how they could incorporate these concepts into their teen services.

In the second year of the project, we shifted our focus to supporting library staff in planning and implementing CL programming in their libraries, as well as sharing their knowledge more broadly with other library professionals, educators, and researchers. We supplemented the monthly CoP meetings with one-on-one researcher-library staff coaching to support them in preparing for upcoming presentations of their work and developing their CL services. Library staff presented their work at the Connected Learning Summit in July 2022, as well as the virtual symposium that our research team organized for small and rural libraries in March 2023. At the end of the second year, we conducted individual interviews with library staff in which we asked them to reflect more generally about their experiences on the project, their evolving understanding of and thoughts about CL, as well as their efforts and plans to implement CL ideas into their library practice.

In line with common practices in case study research (Stake 1995; Crowe et al. 2011; Yazan 2015), we collected multiple forms of data during these project activities. Data included video recordings, notes, and artifacts from the CoP meetings; presentations prepared by library staff for the two conferences; and the notes and recordings from semistructured interviews that research team members conducted with individual library staff during and at the end of the project. This variety of data sources served as a method of data triangulation and helped us to develop a holistic understanding of the case (Crowe et al. 2011). The Findings section includes data from all of these sources.

Data Analysis

We employed a reflexive thematic analysis (TA) approach to analyze our corpus of data (Braun and Clarke 2006; Braun and Clarke 2021). Reflexive TA is appropriate for the current investigation because of its theoretical flexibility, which enabled us to surface library staffs' meanings and experiences while recognizing our own participation in the CoP and its effect on our understanding of the focal case. As a highly iterative process, reflexive TA allows for the interweaving of data collection and analysis (Nowell et al. 2017), which is consistent with a constructivist approach to case study research (Stake 1995). Simultaneous data collection and analysis enabled us to deepen, expand, and revise our understanding of the themes in relation to the ongoing activities of the CoP.

Weekly researcher team meetings between CoP sessions functioned as peer debriefing sessions throughout data collection and analysis (Nowell et al. 2017), during which we drew on our fieldnotes and session artifacts to surface insights from the most recent CoP session and explore them in relation to insights from prior sessions. The insights documented during these conversations provided the foundation for the first author's coding of CoP artifacts, session notes, and interview transcripts. Examples of codes at this stage included changing habits, community as

an asset, and capacity as a challenge. All authors discussed these codes and collectively developed them into the broader themes reported in this article, such as collective sensemaking and entrenched mind-sets.

We took several steps to ensure the trustworthiness of our analytic process (Lincoln and Guba 1985). The notes from peer debriefing sessions served as an audit trail to track our emerging impressions of the data (Nowell et al. 2017). They also served as the basis for future data collection decisions. For instance, we used notes from peer debriefing sessions to develop the interview protocol for the one-on-one interviews that we conducted with library staff at the end of the project. These interviews functioned as member checks in which we compared our understanding of emergent themes with how library staff described their participation and experiences in the CoP.

Findings

Our analysis illuminates the processes by which library staffs' understanding of CL shifted over the course of the project (RQ1) and how they applied their emerging understanding to (re)shaping teen services in their libraries (RQ2). Through their participation in the two-year researcher-practitioner CoP, library staff engaged in a process of collective sensemaking that scaffolded their emerging understanding of CL and helped them to develop CL-based teen services. However, this collective sensemaking remained in tension with the entrenched mind-sets about library-based teen services that persisted among our library staff and the leadership in their respective libraries. This tension limited their understanding of CL as well as their related programming ideas and efforts.

Collective Sensemaking

Camaraderie Through Similarity

Throughout the CoP process, participants repeatedly expressed an affinity for learning about CL principles and exploring the toolkit alongside their fellow small and rural library staff. Hearing other library staffs' perspectives (P1, P7) and working through exercises such as community mapping or a new program/service design with others from a similar context was "incredibly useful" (P1), as was fine tuning their ideas through group conversations (P1, P8). P2 remarked, "I think what I've enjoyed the most is getting to work through the process with other people who were similar to me."

Participants recalled moments when the shared experience of working in small and rural libraries was especially useful: "[I was] thinking, like, 'Oh, we can do that.' Or, 'We're a small library and they're a small library. I'm sure we can do that'" (P4). Talking to context-adjacent library staff seemed to develop a sense of solidarity within the CoP that resonated with our library staff, prompting them to talk outside of our monthly meetings and exchange resources such as grant opportunities and strategies for creating teen services, as well as exploring

potential solutions to obstacles associated with a lack of capacity and resources. Several CoP meetings were diverted to talk about and exchange strategies for shared challenges within the staffs' communities, such as rising homelessness, a polarizing political climate, and budget constraints. As one participant explained, "Just knowing that it doesn't matter where you are in the United States, all small libraries have the same issues" (P5) helped participants engage with the concepts and aspirations of CL and engage productively in the CoP.

Developing a Shared Language

Library staff pointed to a common language about CL and library services for teens that developed during their two-year participation in the CoP. This terminology helped them to communicate their newfound understanding and aspirations with their superiors and community outside of the CoP. Participants explained that the project helped them give "'evidence' to their library administration that this teen led approach is needed" (P1) and provided useful terminology "just for communicating with others why what we do is important" (P2). P2 further elaborated that this newly added vocabulary increased their confidence when approaching teens and other community members, giving them a "better sense that I feel confident in what I'm doing instead of just feeling like I'm making it up as I go, to feel like, yes, there are reasons why what I'm doing will hopefully work and why I'm trying things the way that I am" (P2). Although there were some members of the CoP who expressed apprehension about changing the structural approach to teen-focused services and wondered whether change is even possible in light of entrenched bureaucratic forces (P4), there were others who reassured them that, little by little, using language that aligned with their priorities, management may change their minds about, for example, "reaching out to the community to create meaningful partnerships" (P2).

Throughout the CoP meetings and especially in the reflective discussions at the end of the project, library staff often mentioned having "aha" moments when they learned there was an "official" term for something they had already been doing in their community based on intuition and experience. P7, for example, became excited when the CoP explored the topic and intricacies of mentoring teens, recalling, "A lot of this stuff we already do, but it is important to know we're on the right track, and we can improve and make some things more CL even now." Participants expressed that having concrete, shared terminology helped them gain buy-in from their superiors for programming that is directed by teen interests and opportunities (P6, P7). Shared terminology also helped them create enthusiasm for these services among their teen patrons (P3, P8).

Some library staff expressed that this new way of naming their efforts (such as labeling "outreach" as "community partnerships") helped them appreciate their work in a new light (P5) and further boosted their confidence and fortitude in trying new and innovative ways of engaging their communities (P2, P4). P3 told us that the concept that stuck most with them was the importance of intentionality in their work, specifically, gearing services toward teen interests, relationships, and potential opportunities. "When you have a clear idea of what you

are trying to achieve," she explained, "it's easier to build relationships and then share success among your colleagues. I've really been working to make sure I stay focused on teen interests, as well as examine current services to see that they are in line with CL."

Sources of Inspiration

We heard repeatedly from library staff that their contributions to revising the toolkit served as a source of inspiration for their own library work, encouraging them to think out of the box and continuously fine-tune their ideas about teen services. Through this process, participants were able to suggest ways to make the modules more relevant to small and rural libraries while also reflecting on their own practices (P7) and traditional services aimed at teens.

Though several participants (P8, P1) mentioned that they did have to sometimes "pick and choose" which modules or CL concepts they wanted to focus on—based on an internal knowledge of their community's strengths and needs—having the toolkit and talking with other CoP members about its different components did help them "think more broadly about what I'm doing" (P4). Participants reflected, in different instances throughout the year, how conversing with one another and exchanging ideas was a "breath of fresh air" (P2) and "really cool! I mean, it's really neat to see other people do these things in different parts of the country. I'm sure we could make that [CL focused program] happen in our town in the future, too" (P5).

Entrenched Mind-Sets

As the previous sections demonstrate, we documented ample evidence of library staffs' emerging understanding of CL, as well as their eagerness and attempts to incorporate CL ideas into teen services. At the same time, the library staff showed signs of struggle when it came to shifting their mind-set fully toward a CL approach, and this struggle was reflected in the teen services ideas they developed for their libraries and communities during the CoP. This struggle did not manifest as a resistance to new perspectives about the role of teen interests, relationships, and opportunities in library services; rather, the difficulty came from a combination of struggling to let go of old ways of thinking, established library practices, and "tried and true" techniques, together with persistent systemic challenges such as capacity, budget constraints, etc. As summed up by P6: "I think in the library world, we get kind of stuck in our ruts . . . 'this is the way we've done it and this is the way we continue to do it.'" In this section, we present evidence and vignettes from our CoP work that demonstrate how our library staffs' understanding of and efforts to implement CL were undercut by their entrenched ideas and practices (and those of their colleagues) surrounding teen library services.

Falling Back on Old Habits

As part of their participation in the CoP, library staff were invited to develop a teen services program that centered CL ideas. Despite their emerging understanding of CL and their enthusiasm

for the idea of centering teen voices, library staff typically fell back on staff assumptions and what they thought would work (P5, P6) when it came to developing a teen program or service. For instance, P7 presented to the CoP their idea for an art program she planned to implement in their library, explaining that it was something that "the staff has wanted to try out for a while now. We just thought it would be fun, and kind of sounds like it could be CL." Although the intention for the program was ostensibly aligned with the CL idea of connecting to teen interests, the program itself was not conceived of or implemented in collaboration with teens, thereby reducing the likelihood it would achieve its goal.

Library staff frequently expressed that they were not fully comfortable stepping back and putting teens in charge of a program, instead preferring to work with a teen advisory committee: "I know I should be giving the teens more drive in what the [services] look like, but we're bounded by time and things that need to happen more urgently" (P2). There was also a recurring concern about service attendance, with P5 commenting on previously "empty chairs in [services] that I've done, which honestly I'd like to avoid." Rather than engaging teens as active members of the planning process, staff who had a hard time shifting their mind-set expressed that engaging teens in this way would "not necessarily help with the program" (P4); instead, she persisted in viewing teens as largely passive participants of the services offered by the library.

This view of teens was connected to library staffs' awareness of the constraints surrounding their library's operational structure. P1 observed: "We say that we're following teen interests, but I feel like it doesn't always come out that way in practice." She explained that administrators' focus on existing library initiatives can sometimes get in the way of listening to teen patrons and designing services focused on their needs. "If the library has a reading initiative, for example, I'll need to design something around that, you know? Whether the teens want it or not it'll have to be incorporated."

Stuck in a Programming Framework

Throughout the CoP participants kept defaulting to a traditional programming framework that centers the library staff as the leader and organizer of an event at the library. As evidenced by this vignette focused on P7, she struggled to put into practice concrete strategies to engage with teens using new methods. During the CoP, P7 struggled to identify concrete ways to center teens' interests in program and service development and connect with teens outside of the library. She described one of the challenges she faced during the project as "just getting people in the library and getting teens back again [after COVID]." Despite CL's centering of teens' interests, P7 sought to overcome the challenge of attendance through a meeting of local adults and community leaders—not teens. This effort turned into a family night program where parents and teens came to the library, ate dinner, and engaged in activities. Although P7 saw this approach as successful, the program was resource- and time-intensive, did not center teen voices, and continued to focus on getting teens into the library rather than teen-centered outcomes.

After she had succeeded in bringing teens into the library, P7 found out they had an interest in art and anime and subsequently invited an artist to the library to teach how to draw anime. This illustrates how, once P7 succeeded in accessing teens, she was able to engage them with content grounded in their interests. Despite this progress, by the end of the CoP, P7 still defaulted to engaging teens through resource-intensive services hosted at the library and did not seem to know how to engage teens as a foundational aspect of service development.

Midway through the CoP, P7 enrolled in a library degree program on top of her full-time job, which impacted her ability to participate regularly in monthly CoP sessions. This overcommitment—common among library staff—may have limited her ability to shift her thinking more fully towards a CL mind-set. Other library staff, such as P3 and P9, were unable to take part in the CoP for the full two years, which may have similarly impacted what they took away from the experience.

Struggling to Center Teen Interests and Not Existing Library Resources

Other participants also struggled to understand how to center teen interests rather than library resources. Before joining the CoP, P6 had an active teen advisory board that helped plan teen services, gave feedback on library-designed materials, and helped promote library activities. Her library also had experience hosting teen interns who would also plan and implement activities for other teens. However, P6 struggled to build on this experience to center teen interests, including the interests of teens who were not library users, over existing library resources.

A year and half into the CoP, while planning for her CL program or service, P6 talked about ways she gathered opinions from teens. Her primary methods were the teen advisory board and going to schools. School visits were time intensive. She would give short presentations in classes about existing library services and resources and then sit in the school library seeking opportunities for casual conversation. P6 had hosted a teen focus group and found it to be a rich conversation, but after we probed further, she said the focus of the conversation was "just to find out what about our advertising that's not working." Two members of the research team urged her to reframe her approach by spending less time at schools and more time with focus groups, as well as to focus not on marketing but building relationships with teens. One of the research team members stressed to P6, "I would throw out the idea that you have to market stuff. If you ask someone in the context of the library, then they will tell you a narrow thing. But you have to build relationships first." However, three months after this conversation, P6 still saw getting teens into the library as a foundational step in developing a CL program: "I've gotta get them here because they really are the basis of CL. Without them, then it is still just planning [services] hoping they'll show up."

Some Signs of Change

Although shifting mind-sets about teens proved challenging for library staff, we did observe change among some of the cohort. For instance, when P2 started at her library, she inherited

a Dungeons and Dragons group. She explained how, in the beginning, "I would lead them in the adventure, they would just be there as participants." However, after participating in the CoP, she started to support the teens in taking ownership of the group. P2 gave teens "a chance to step into that leadership position and make the group more aligned with what they want, rather than what I'm bringing to the group." She added: "The teens got what they wanted and really loved playing. . . . I got to engage with them on a creative and personal level, and my supervisors were happy more teens were coming in through our doors." In this example, a shift in P2's orientation to teens resulted in a teen service that also aligned with traditional criteria against which libraries measure program success (i.e., number of teen patrons). As P2 becomes more confident in CL approaches, she may talk with colleagues and leaders about moving beyond traditional success criteria in the future.

In addition to changing her own approach to teens, P2 also recognized the importance of working on changing how other library staff and patrons view teens and their participation in the library. Observing that teens are often seen as a disturbance in the library, P2 described how she and her colleagues had started to focus on creating a more welcoming space for teens, which included developing training for staff members. "It's gotten worse since the pandemic," she explained. "I just want the rest of the team to be happy to see teens come in and strike up conversations with them. I guess that's the respect you talked about in CL, no?" For P2, making the library more welcoming for teens was a crucial first step to incorporating CL ideas into teen services.

Creative Solutions to Systemic Constraints

Like many other library staff working in small and rural communities across the country, our library staff faced persistent systemic challenges related to space, staff capacity, and budgeting that limited their ability to fully embrace a CL mind-set. At the same time, exposure to CL ideas in some instances led library staff to develop creative solutions to intractable challenges. For example, P4 shared with us that the decision to expand their teen art program into partnerships with local community members, such as businesses and cafes, was partly a creative solution to dealing with space limitations in the library: "As far as here in the library, I think our biggest challenge is just space. . . . I think that's why we came up with the showcasing in businesses, because there's not only one business we can showcase, we can showcase [teen art] in many businesses that we have here in town." P3 recollected that "partnerships [within the community] allow us to grow our capacity beyond what we as individual programmers can make in the library, and also help us brainstorm ideas for challenges we might not have thought to challenge." While describing one of their services for teens, P5 recalled that she was "trying to find different ways to find out where the teens are and how to get a hold of them [chuckle], but also ways to get the community involved. We always involve schools or Boy Scouts or different organizations like that, but [this CoP has] kind of made me think outside that box, like, okay, where can I go in other places?"

The value of connecting to the larger community was a recurrent topic of discussion during CoP meetings. Library staff described opening up and engaging with their communities as a viable, albeit partial, solution to the scarcity of resources that small and rural libraries often face. COVID-19 had almost limited in-person community building and compounded already existing challenges of this community-based work, such as reaching out to members of the community in pockets of inaccessibility (e.g., the lack of public transportation to get to the library, and the lack of resources to learn about the libraries' potential engagement opportunities), as well as the time required to identify and forge community partnerships. P4 observed: "I think the biggest challenge is just taking the time to map out what's there and what can be used and then build those connections." Still, she would "highly recommend talking to the board [supervisors] and carving out the time. It only brought good for us, to connect with our people."

Discussion

This case study explored how library staff serving nine different small and rural communities engaged with CL ideas during a two-year researcher-practitioner CoP. Our analysis revealed how the CoP provided a generative context for library staff to engage in collective sensemaking around CL and explore together how to incorporate CL ideas into their practice. By the end of the project, all library staff had demonstrated increased understanding of CL ideas and developed teen services that reflected these ideas, at least in part. However, there remained a persistent tension between the collective sensemaking of the CoP and the entrenched mind-sets about library practice and teens displayed by our library staff and (indirectly) the leadership and staff in their respective libraries. These entrenched mind-sets, which were influenced by broader systemic forces, limited the degree to which library staffs' thinking and programming ideas embodied CL ideas. Figure 2 depicts the tension between collective sensemaking and entrenched mind-sets and how this tension affected library staffs' understanding of CL as well as their approach to CL-inspired teen services programming.

The current study is consistent with prior research that has explored challenges associated with introducing CL ideas into teen services and programming in public libraries. In addition to systemic challenges such as funding, space constraints, and staff training (Subramaniam et al. 2018), all of which are often magnified in small and rural libraries (Davis et al. 2018), prior work has identified challenges associated with library staffs' mental models of teen-focused services. This research suggests that, although library staff are keen to make services appealing to teens, they are more reluctant to share control with teens and incorporate their voices meaningfully into program planning (Subramaniam et al. 2018). This hesitancy reflects a traditional view of library services in which library staff lead and teens follow (Ito and Martin 2013). Similarly, the current study found evidence of entrenched mind-sets regarding if and how teen voices ought to be included in the development of teen services. Even when library staff showed openness to
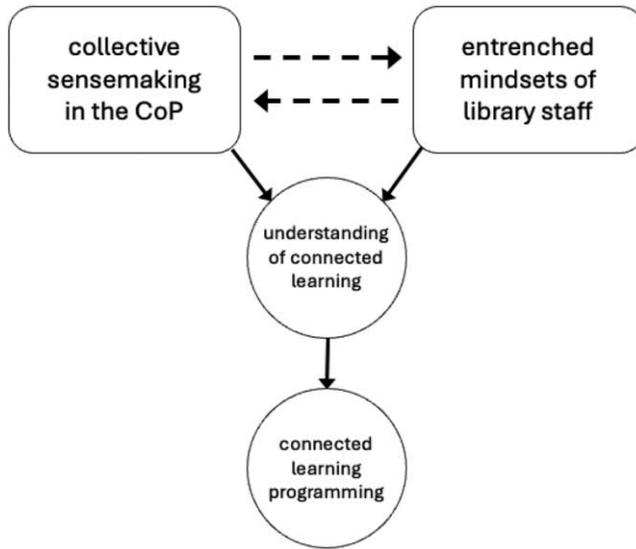
Figure 2. The tension between collective sensemaking and entrenched mind-sets and its effect on library staffs' understanding of CL and their approach to CL-inspired teen services programming.

shifting their mind-sets, they frequently pointed to the traditional benchmarks by which their supervisors evaluate program success, such as teen attendance and aligning with externally mandated initiatives. These entrenched mind-sets, which are influenced and magnified by systemic challenges, pose a major challenge to incorporating CL into teen services.

The current study extends prior work by charting a viable path forward for introducing CL into public libraries. Within the context of a long-term CoP involving other small and rural library staff and CL content experts (the research team), library staff engaged in a process of collective sensemaking that enabled them to deepen their understanding of CL and shift their approach to teen-oriented program development. The result was not a wholesale transformation of library staffs' thinking about or approach to teen services, but rather a more incremental shift. For instance, library staff demonstrated greater openness to thinking in new ways about topics such as how best to involve teens and engage community partners. Such shifts in thinking were mirrored by a parallel shift in the types of services that library staff designed during the CoP, such as the way P4 expanded her library's teen art program by partnering with businesses and cafés in the community. The tension between collective sensemaking and entrenched mind-sets remained, but meaningful change still occurred.

The value of incremental, as opposed to disruptive, change has been explored previously in research on educational technologies. When a new technology is first introduced into an educational setting, instead of disrupting teaching and learning practices, it is more often absorbed into well-established practices, metrics, and structures (Reich and Ito 2017; Reich 2020; Cuban

2001). Justin Reich (2020) refers to this pattern as the "curse of the familiar" and observes that it is evidence of just how difficult it can be to disrupt entrenched practices, especially in the context of public institutions. Instead, argue Reich and others (see Tyack and Cuban 1997; Ames 2015; Ames 2019), it can be more productive to adopt a tinkerer's mind-set to institutional change. A tinkerer's mind-set seeks to incorporate new ideas, approaches, and technologies into existing practices, using them not to overhaul these practices but instead to reexamine them and, over time, begin to gradually shift them. Reich (2020) observes that this kind of incremental change is most likely to occur in the context of ongoing, collaborative discussions among educators that are backed up with institutional support.

The work that we did in the context of the two-year CoP can be viewed as a tinkerer's approach to introducing CL into teen services in public libraries. The CoP created a structure for library staff to come together regularly to engage with the Toolkit and learn about CL; share ideas, challenges, and brainstorm solutions with each other and the research team; and, through this collaborative process, develop, refine, and implement CL-oriented teen services in their library contexts. By the end of the CoP, library staff had not transformed their practices or libraries, but some were beginning to introduce new ideas and approaches to teen services. Importantly, they had learned to communicate their new ideas about CL using more traditional terms and benchmarks that resonated with their supervisors and colleagues. This translational work positioned them to make incremental changes within existing library structures.

The collective sensemaking that took place within the CoP was integral to this work, providing library staff with the time, motivation, support, and feedback needed to introduce CL ideas into their library contexts in a way that could work within existing structures and practices. Prior work in science education and organizational theory has explored the value of collective sensemaking and how it can facilitate meaningful change in work and educational contexts (Maitlis and Christianson 2014; Hayes et al. 2021; Marshall et al. 2021). For example, Stefanie L. Marshall, Christina Restrepo Nazar, Amal Ibourk, and Kevin W. McElhaney (2021) demonstrated how collective sensemaking among science teachers and researchers helped to overcome the gap between curriculum design and classroom implementation. In a similar manner, the collective sensemaking that occurred within our CoP helped to bridge the gap between CL ideas, on the one hand, and the entrenched mind-sets and structural constraints of public libraries, on the other. Our work extends prior work on collective sensemaking by demonstrating how this process can be used in conjunction with a tinkerer's approach to make small but meaningful changes within the structural constraints of library systems.

Limitations and Future Work

This case study represents one approach for leveraging communities of practice to facilitate change in teen services programming in public libraries. We are mindful that the circumstances surrounding this work are somewhat unique (e.g., grant funding and ongoing support

from CL experts) and therefore difficult to replicate in other contexts. Even in our context, we still ran into challenges with maintaining consistent library staff participation due to the many commitments facing our library staff. Nevertheless, we see promise in using a CoP model to create space for library staff within and across libraries to reflect on their practice and explore new ideas and approaches using a tinkerer's mind-set. In our work, the limitations of the grant forced an end to the CoP, posing a challenge to sustainability. Institutional support is crucial to facilitating and sustaining similar efforts in the future. However, we would like to point out that organizations working with library staff such as state library agencies, national library organizations, and youth services coordinators have multiple opportunities for facilitating CoPs within their specific framework. For example, one of the participants in this project who served as a services consultant hosted regular community conversations on general topics related to youth services. These could be more intentionally turned into CoPs by focusing on a specific aspect of youth services, such as serving marginalized youth or codesigning teen services, and facilitating ongoing discussions on this topic. The same could be true for large library or regional library systems. For example, along with or instead of hosting regular meetings on general topics related to teen services, meetings could focus more specifically on a particular aspect of those services and foster deep thinking and learning on that topic. Often system-wide youth services meetings are focused on logistics or a theme that people are actually already well versed in. Reimagining these meetings could go a long way to building new ways of practice and rethinking current practice.

Conclusion

The current study investigated library staffs' participation in a two-year researcher-practitioner CoP focused on revising a CL professional development toolkit. Library staff engaged with each other and with the research team to adapt the toolkit for their small and rural library contexts and to develop CL-focused teen services for their library. Although library staffers were incrementally shifting their approach to teen services, this progress stood in tension with their entrenched mind-sets and the structural constraints of their libraries. As a result, the change we documented was more incremental than transformative. The insights from this work demonstrate how incremental change can nevertheless be meaningful, and that CoPs can offer a viable path forward for introducing CL into public libraries.

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