



YouthStudio: Designing Public Library YA Spaces with Teens

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Abstract

This paper describes how research was used to guide the design, implementation, and evaluation of a public library young adult (YA) space design program with teens and librarians through a community–university partnership. Previous studies have shown why it’s necessary for librarians to allow teens to participate in public library YA space design projects. This paper seeks to fill a gap in the literature by contributing a theoretical and methodological framework to study YA space design projects *with* teens and librarians using critical pedagogy and ethnographic action research. Community informatics is the theory and practice of using information and communication technology in support of community-defined development goals, which might include digital inclusion, civic engagement, and social justice. The Youth Community Informatics Studio, or YouthStudio, is introduced as a model of engaged scholarship that embraces both critical pedagogy and ethnographic action research to show how researchers can work with teens and librarians to design, implement, and evaluate YA space design projects in public libraries, as sites where teens can engage in social change.

Introduction

The education literature is rich with examples that show how research rooted in critical theoretical perspectives and participatory design techniques can support teens in gaining social and technical skills while building other capacities in informal spaces outside of school. The connected learning field is an exciting and growing area of scholarship that embraces teen-driven

interests and “centers on an equity agenda of deploying new media to reach and enable youth who otherwise lack access to opportunity.”ⁱ However, few studies within library and information science (LIS) have embraced critical scholarship *with* teens and librarians, particularly in the design of YA library spaces. While social justice in LIS is another emerging area of scholarship, there is still a lack of research-based examples that instructors and their students can use with teens and librarians to address broader social issues and concerns through library design projects. This paper seeks to fill this gap in the literature by describing how research was used to guide the design, implementation, and evaluation of a public library young adult (YA) space design program with teens and public librarians through a community–university partnership. By reviewing the existing literature on public library YA space design, community informatics, and critical pedagogy in YA library services, we seek to make a contribution to the growing field of social justice studies in LIS by providing a model of engaged scholarship that embraces critical theory and action research to address the issues that matter most to teens in their everyday lives, such as equitable access to education and having voices that matter in society.

Literature Review

The following section considers studies that have sought to advance the idea of using critical theoretical and participatory approaches to researching YA library space design. We focus not only on strategies that address the needs of teens within libraries, but also on how these needs are connected to broader social justice concerns that impact teens outside library walls.

Designing Public Library YA Spaces

Research on the design of public library YA spaces is a fairly new area of study within library and information science. Research with teens is an even more contemporary focus.ⁱⁱ Historically, teens have been a marginalized population in U.S. public libraries, alongside other historically oppressed populations such as women, nonwhite citizens, and non-English speakers. Urban teens in particular have experienced an even greater challenge in overcoming the racial and socioeconomic stereotypes that have prevented librarians and the public at large from seeing teens as an essential part of our society, not to mention the future of this country.ⁱⁱⁱ In this context, teens’ perspectives did not matter in the design of public library spaces. Rather, library design has been “driven by the personal likes and ideas of librarians, administrators, and architects.”^{iv} As Bernier describes, “Although young adults are widely recognized as constituting nearly 25 percent of all library users in the United States, the vast majority of libraries devote more space and design attention to bathrooms than to young people’s spatial needs.”^v Bernier explains that the first in-depth study of public library YA space design didn’t appear until 2006, with the research of Cranz and Cha.^{vi} These researchers gathered observational data about teens’ behavior and interviewed library users in the teen space. Through qualitative and quantitative analysis of the data, the authors found that body-conscious design in library YA spaces offered the potential for teens to embrace “healthy postures”^{vii} to promote comfort during reading and use. While the study is useful for beginning to understand the needs of teens in the design of YA library spaces, it did not include teens themselves in the beginning of the public library YA space design project.

More recently, researchers have studied the role of user-centered design in the development of public library YA spaces. For example, in their study of teens' and librarians' preferences and recommendations for effective design of YA spaces, Kulhmann, Agosto, Bell, and Bernier found that teens and librarians both recommended that public library YA spaces focus on physical comfort, leisure activity and information needs, and academic activity and information needs.^{viii} These and other findings support the recommendations in YALSA's National Teen Space Guidelines, which can play an important role in creating an environment that supports teens' "emotional, social, and intellectual development."^{ix}

Librarians have also used participatory design and action research methods *with* teens as a strategy for developing public library spaces for teens. For example, Steele's report in *Young Adult Library Services*^x is more aligned to recent recommendations,^{xi} which have focused on involving teens in the design and creation of YA spaces. Steele, who was then the teen programming specialist/digital resource specialist at the Free Library of Philadelphia, began working with teens to address their feelings of alienation. She describes how the library YA space design project embraced dialogical design and action-research methods to develop a new teen space at the McPherson Square Library, which is "located in one of the most impoverished neighborhoods in Philadelphia."^{xii} This paper was influential to us in developing our research approach, which used community informatics theories and ethnographic action research methods.

Community Informatics

The field of community informatics (CI) has been described as "the theory and practice of empowering communities with information and communication technology."^{xiii} Its focus on the use of information and communication technology (ICT) by individuals and groups in geographic communities is what sets CI apart from other areas of informatics research and practice. Building on Clement and Shade's conceptualization of the "access rainbow"^{xiv} (as a response to critical questions such as "access for what?" and "access for whom?"), Gurstein introduced the concept of "effective use" as a strategy for moving beyond issues of access in addressing the digital divide and moving toward a set of indicators for measuring how "to successfully integrate ICTs into the accomplishment of self or collaboratively identified goals."^{xv} However, critics have questioned the field's ability to truly empower communities simply through the use of ICTs alone and instead have productively argued that CI should play "a supporting role" in community development projects.^{xvi} For the purpose of our research, we believe that CI is useful particularly to public library YA space design projects because it is "a more reflective practice that looks beyond short-term goals by taking into account broader societal concerns and contexts."^{xvii} In other words, rather than simply focusing on furniture or lighting, we used a "problem-posing" educational strategy^{xviii} that encouraged teens to see their teen space designs as a means for addressing the broader issues and challenges they experience in their everyday lives.

CI has also been considered as a research strategy with youth. For example, Bruce and Bishop developed a youth community informatics (YCI) model built on progressive education philosophy, and they asked critical questions to understand how community inquiry processes and the effective use of technology could be used for social justice, youth empowerment, and

building community capacity.^{xix} Ritzo and Adams recognized that one of YCI's strengths as an approach to engaged scholarship is that it is "flexible" in developing community–university partnerships, while recognizing the "power differentials and deficits" that should be addressed by such partnerships.^{xx} The research in our paper builds on Eubanks's approach to CI, which embraces critical pedagogy, participatory design, and action research methods. This approach inspires "insight by building on what emerges from everyday life experiences of participants in workshops or informal classes," "describes an orientation toward research that promotes concrete change by generating and assisting ordinary people's analysis and action," and places an emphasis on "active involvement of people who most directly confront problems."^{xxi} Our research builds on these and other critical interpretive perspectives^{xxii} to present a community informatics strategy that involves those who are closest to the problems and works with them in a participatory manner to support them in solving those problems.

Critical Pedagogy

The argument for incorporating critical theory, research, and practice *together* into library and information instruction is not new. For several years, LIS scholars and practitioners have drawn upon the work of Paulo Freire, Henry Giroux, Peter McLaren, and other critical theorists to challenge the underlying assumptions guiding traditional information literacy practices as well as what constitutes legitimate research and knowledge.^{xxiii} The purpose was to expose and challenge dominant narratives in mainstream society that structure and reinforce existing social, political, and economic inequalities in the United States. As Chu explains, "Literacy, as it applies to linguistic minorities, needs to be understood as a discourse of power and must be redefined in order for librarians to be able to provide them with appropriate literacy services."^{xxiv} Chu recommends a list of library services and practices grounded in critical theoretical perspectives that can be used by librarians to better engage with and serve linguistic minorities in libraries. Into the 2000s, Chu and others in LIS invited educators to engage with critical pedagogy in order to see education itself as a "profoundly political activity."^{xxv} These and other scholars broadened the field in LIS by asking critical questions about how knowledge construction happens and calling attention to which forms of knowledge are most valued in information literacy practices.

Critical pedagogy has also provided LIS scholars working in the areas of feminist studies, critical race theory, and poststructuralism with an epistemological venue for challenging the assumption that libraries are "neutral" spaces. Rather, critical scholars have argued that libraries are places where librarians, students, and community members can begin to develop what Freire called "conscientization," or critical consciousness.^{xxvi} As Elmborg explains, "By developing critical consciousness, students learn to take control of their lives and their own learning to become active agents, asking and answering questions that matter to them and to the world around them."^{xxvii} Kumasi introduced the idea of "cultural inquiry" in LIS as an approach to youth services librarianship that embraces critical pedagogy as a strategy for addressing the unequal ways in which knowledge is constructed and to provide learners with opportunities to engage multiple perspectives "on a variety of topics or themes (e.g., immigration), allowing participants to openly grapple with the complexities of race and the human experience."^{xxviii} In another study, Austin drew upon the critical information literacy literature as a framework for her research on juvenile detention center libraries as sites for political action.^{xxix}

These studies highlight the potential of critical pedagogy to address the power differentials inherent in the community–university partnerships mentioned previously. LIS scholars have argued for the need to move beyond “service learning” and toward learning *with* community members as a strategy for creating more equal educational opportunities for both community and university partners in community informatics projects.^{xxx} Critical pedagogy emphasizes listening to and learning from teens and embracing “difference as a resource”^{xxx1} to design more meaningful—and potentially even more impactful—YA spaces in public libraries.

Teen Space Architects

In this section, we describe the Teen Space Architects program in which we used our Youth Community Informatics Studio, or YouthStudio, participatory research and design approach with teens and librarians at the Moore Public Library in Oklahoma. The project planning began in the fall of 2014 through a partnership between the Moore Public Library, which belongs to the Pioneer Library System, and the School of Library and Information Studies (SLIS) at the University of Oklahoma as part of the graduate-level class titled “Leadership in Information Organizations.” The branch manager at the Moore Public Library invited the lead author of this paper to assist in developing programming to engage the increasing number of teens at the library. The longtime teen services supervisor had recently left, and the teen services department was undergoing a reorganization. The library administration hoped that more of the library staff would be able to provide services to teens to address the significant community need for teen services. The class was developed as a response to this need and as a way to provide the graduate students, two of whom were also Public Services Assistants at the library (the second and third authors of this paper), with more experience developing community engagement programs with teens in Moore, which was experiencing increasing socioeconomic challenges. The free and reduced-price meal eligibility data for the schools surrounding the library are provided in table 1.

Table 1. Free and Reduced-Price Meal Eligibility Data for Moore, Oklahoma (2012)

School	Free	% Free	Reduced	% Reduced	Free & Red.	Enrollment	% Low Income
Central*	306	55.04%	76	13.67%	382	556	68.71%
Southgate- Rippetoe*	434	62.63%	95	13.71%	529	693	76.33%
Plaza Towers*	282	56.97%	60	12.12%	342	495	69.09%
Highland East**	236	33.33%	73	10.31%	309	708	43.64%
Moore***	686	31.37%	179	8.18%	865	2,187	39.55%

Key: *elementary school, **junior high school, ***high school

Source: Oklahoma State Department of Education, “Oklahoma 2011-2012 Low-Income Report,”

<http://ok.gov/sde/sites/ok.gov.sde/files/LowIncomeReport1112.pdf>.

Program Goals

The idea to invite teens to help redesign the teen space at the Moore Public Library developed both in response to the branch manager's interests in teen programming and through a brainstorming session with the instructor and graduate students during class, which was held off-campus every week in a conference room at the Moore Public Library. Coincidentally, the branch manager and information services department staff had been discussing this idea before the class started; therefore, the idea quickly took off at the library, and the teen program planning quickly got under way. The first step was to develop the project goals and a flyer (fig. 1) to recruit teens for the program.



Figure 1

The goal of the Teen Space Architects program was developed in collaboration with our community partner and was later elaborated upon in class between the instructor and students. The goal was finally articulated in the following way: "To engage teens through community involvement in an interactive and fun environment while fostering digital literacy and leadership

skills.” It is important to note that while the goal of the project was determined by the library and was further refined by the instructor and students, the teens still had additional opportunities to articulate why this goal mattered to them. In other words, the goals were broad enough to provide a focus for the teen program while still enabling teens to participate in the design, implementation, and evaluation of the project. This paper focuses on how research was used to guide and study this participatory process.

Program Implementation

The outreach and recruitment materials enabled us to attract a total of nine teens (four girls and five boys), ages twelve through seventeen, to the program. One boy, age eleven, also participated in the program. Table 2 includes a sample of the participant demographics that were available to us; we did not collect demographic information on participants’ races/ethnicities. Because the only incentive for teens to attend our once-a-week evening program was free pizza, we found it difficult to keep our attendance up over the entire eight-session program. The project culminated in a final presentation by four of the teens to the city manager of Moore, the director of the Pioneer Library System, the director of the School of Library and Information Studies at OU, parents of the teens in the program, librarians in Moore, and other friends and family. All four teens came back the week following to participate in the focus group session, which was part of our final teen program evaluation.

Table 2. Teen Participant Demographic and Program Attendance Information

Pseudonym	Age	Gender	Number of Sessions Attended
Adam	11	M	8
Allison	14	F	7
Ben	12	M	1
Brandy	12	F	1
Fred	13	M	1
Heather	14	F	1
James	16	M	6
Laura	17	F	3
Ron	12	M	2
Sam	17	M	8

The YouthStudio was introduced to the graduate students at the beginning of the semester as a theoretical, methodological, and practical model for engaging with the participants in the Teen Space Architects program. The YouthStudio is grounded in the theoretical frameworks mentioned above, as well as the lead authors’ past experiences using studio-based learning in community engagement projects.^{xxxii} In class, graduate students learned about the community engagement theories and popular education underpinnings of the YouthStudio approach that formed the basis for our engagement with the teens. Popular education, as a form of critical pedagogy, refers to the process whereby people come together to reflect on their everyday experiences, which allows them to learn about “the larger social, political, and economic contexts in which they live.”^{xxxiii} The engagement between educators and students as “co-

speakers, co-learners, and co-actors”^{xxxiv} was essential to our research and practice with the teens and librarians at the Moore Public Library. Figure 2 shows the timeline of activities with the teens throughout the semester, which culminated in the teens’ final presentation of their virtual designs.

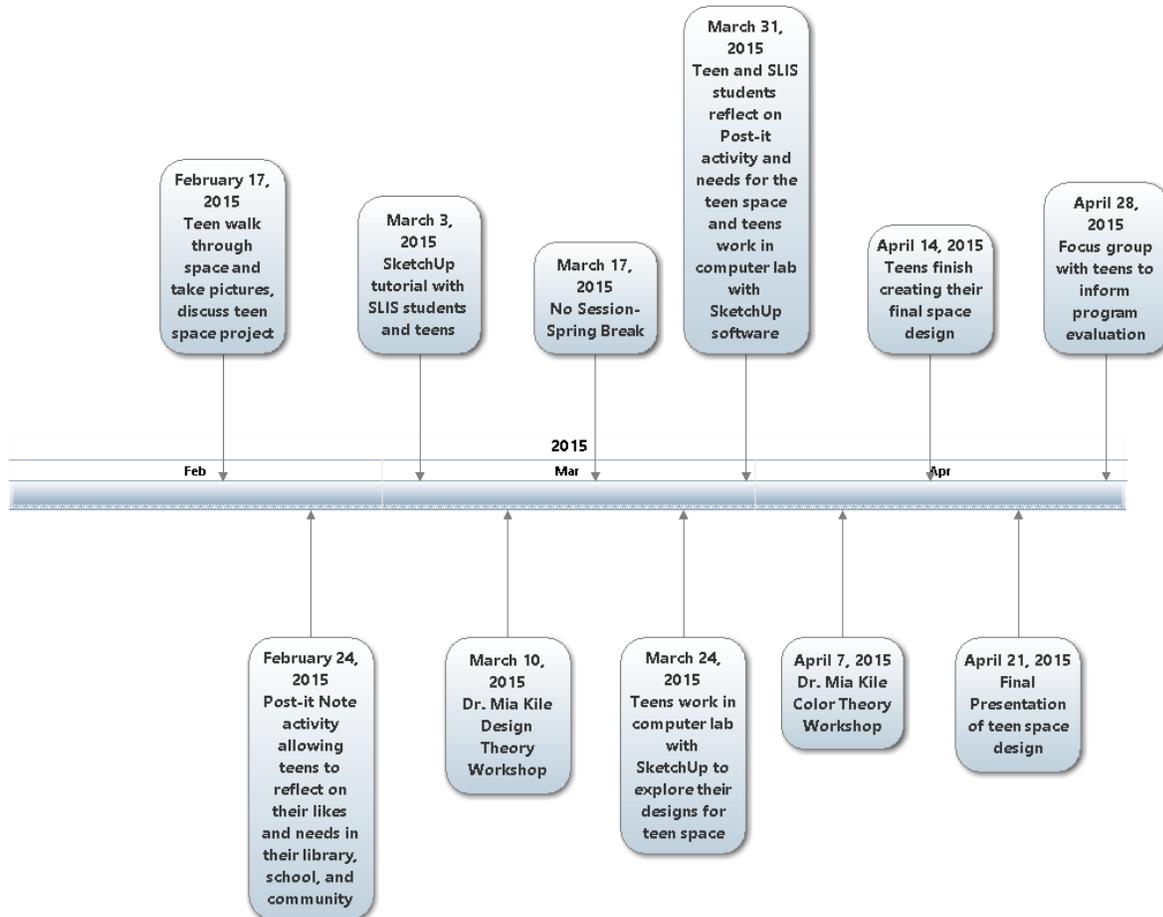


Figure 2

Research Design

The research was designed to involve the instructor and graduate students as co-investigators while working with the teens as partners and co-creators of knowledge. The following research question was initially developed based on our community partner’s main interests: *How can a public library use studio-based learning to promote youth digital literacy and leadership skills?* As we began our work with the teens at the Moore Public Library, we realized that our research question changed to focus more on how critical pedagogy and ethnographic action research could be used to guide the design, implementation, and evaluation of a public library YA design program with teens and public librarians through our community–university partnership.

Research Methods and Data Collected

To answer this question, the researchers sought to engage both teens and librarians in the overall design, implementation, and evaluation of the YouthStudio program, which focused on helping teens to develop digital literacy and leadership skills through the library YA space design activities. We also used popular education approaches (see the “Library, School, Community” workshop below) to encourage teens to think about how the library design project could be used to address their broader social and community concerns. In this way, the methodology perhaps most reflects what has been described as “ethnographic action research” (EAR),^{xxxv} which was originally developed as a way to evaluate the effectiveness of community-based media initiatives that sought to engage “marginalized or excluded communities.”^{xxxvi} Tacchi and colleagues argue that researchers interested in using information and communication technology for community development need an approach “designed not simply to research a project, but to gain a level of understanding of the local context and[,] thus, to assist in project design, ongoing evaluation and monitoring[,] and in a continual cycle of research and project development.”^{xxxvii} We embraced ethnography because of its focus on “working to understand how media and technology are meaningful to people in the context of their everyday lives.”^{xxxviii} EAR was developed “to focus on actual practices of use and interaction with technologies in the wider context of people’s lives and social and cultural structures.”^{xxxix} This approach situates the researcher within the local context to gain a deeper understanding of the relationship between the local culture and the broader society.

Action research, the second half of the EAR approach, was useful to us because it is a research process that is “tightly connected to the activities of a project” in the following ways:

1. *Active participation:* The people who should benefit from the research participate in defining the aims and direction of the project and in interpreting and drawing conclusions from it.
2. *Action-based methods:* The activities and experiences of participants generate knowledge alongside, or in combination with, more formal methods.
3. *Generating action:* Research is directly aimed at generating short-, medium-, and long-term plans, including business plans, ideas for new initiatives, solving problems, targeting sectors of the user constituency, and finding new resources of partners.^{xi}

EAR also complemented our community informatics studio model, which is an approach to engaged scholarship that considers research, teaching, and practice together as part of an iterative learning approach used in community–university partnerships.^{xii} EAR allowed us to use ethnography “to guide the research process and action research to link the findings back into a project’s ongoing development.”^{xlii} Table 3 provides an overview of the researchers, the methods, and the data collected as part of the community–university research model used in our study.

Table 3. YouthStudio Ethnographic Action Research Methodology

Researcher	Method	Data Collected
Instructor, SLIS students,	Action research	Teen feedback: informed next steps of the

and teens		project, including design activities for teens and librarians.
Instructor and SLIS students	Ethnography: observation	Field notes: inscriptions of the actions and words of teens during the YouthStudio program meetings.
SLIS students	Ethnography: observation	Journal entries: reflections on (1) the theories that informed our practice and (2) the observations of the design activities.
Instructor	Ethnography: interviews	Feedback from teens and branch manager: informed overall design, implementation, and evaluation of program.
Instructor	Ethnography: focus groups	Feedback from teens and SLIS students: provided summative evaluation material that was considered alongside other ethnographic data.
Instructor and SLIS students	Ethnography: documents	Information about the library system's goals and objectives, which allowed researchers to consider data and align action research activities with community partner's priorities.

Data Analysis

As we conducted our fieldwork, the graduate students in the class wrote weekly journal entries, which included reflections on the activities in the Teen Space Architects program. They shared these entries, which served as part of the data for our analysis, with the instructor through the online course management system. We then used these entries to elaborate on the issues that we discovered in our field notes, which informed future activities with the teens in the program. This process of reflecting, planning, doing, and observing played a significant role in our ethnographic action research approach, in which we considered multiple perspectives throughout the data-collection process. Therefore, our analytical process followed the approach described by Emerson, Fretz, and Shaw, in which “analysis is less a matter of something emerging from the data, or simply finding what is there; it is more fundamentally a process of creating what is there by constantly thinking about the import of previously recorded events and meanings.”^{xliii} We often shared the themes that emerged from our field notes and journal entries with the teens to ensure that our YA library space design activities were both accurately recorded and aligned with the goals of the Teen Space Architects program. We used this triangulation approach^{xliv} to establish patterns in the data and to help validate our findings. During our final focus group, we shared our findings from the semester with the teens to get their feedback and additional insights on the themes, to which we will now turn.

Findings

Through our ethnographic action research approach, several themes emerged from our analyses and discussions in class and with the teens of the weekly field notes and journal entries. The following three themes were most frequently mentioned by teens during the redesign process:

1. Comfortable hangout space
2. Space for informal learning
3. Community information exchange

In this section, we outline our findings. We also show how our research yielded important insights, which allowed us to share and ultimately co-create knowledge with teens and librarians in Moore. Through our emphasis on critical pedagogy, we describe how these three themes related to broader concerns among the teens about the library, school, and their community, which were highlighted in their final library YA space design. We conclude by elaborating on the extent to which the YouthStudio achieved the program goals, which were focused on fostering teen digital literacy and leadership skills.

Comfortable Hangout Space

One of the consistent themes throughout the Teen Space Architects project was the emphasis on creating a space that was comfortable and inviting for teens. Comfortable furniture was one of the first issues to emerge during our initial meeting, in which we asked teens to use iPads to take pictures of things they liked about the existing space as well as things they'd like to see changed through the redesign. We then led a discussion to learn more about their likes and dislikes about the existing YA library space. All of the teens agreed that the chairs were not comfortable.

Laura: Those chairs that have the wire stuff and then the like beanbag thing on it. It's really uncomfortable and a lot of people don't like sitting there. I think I know one person who likes sitting in there in those chairs. And then the other chairs, they're really comfy and whatnot, but then they've got those wood things that lots of people like to scratch stuff into it and would probably be a good idea to get some different chairs.

Other teens commented throughout the semester that more comfortable chairs and couches were needed in order to make teens feel more welcomed. The need for comfortable furniture in teen spaces is supported by previous studies and recommendations.^{xlv} In addition to the furniture, teens also noted that having a space where teens can engage in hands-on activities played a critical role in allowing them to feel comfortable and welcome in a place where they would want to hang out and socialize.

Mia Kile, associate professor and academic director of the Division of Interior Design in the College of Architecture at the University of Oklahoma, led two workshops for the teens during the semester. In her first workshop, Dr. Kile introduced the teens to the field of interior design and exposed them to different design theories and various considerations in their teen space redesign. Dr. Kile also brought rolls of paper and design pencils to the workshop, which proved

to be a huge success with the teens. They immediately grabbed for the pencils, rolled out their paper on the table in the library conference room, and began sketching ideas based on what they were learning during the workshop. This particular hands-on activity during the third week of the program provided a transitional moment. We later learned from the teens during our focus group that hands-on design activities in the YouthStudio gave them an opportunity to address larger issues with the ways in which society views them, as illustrated the following exchange:

Sam: Yeah. A while ago in my own experience, nobody listened to me. I was blamed for things in my public school experience that nobody should ever have to go through, and nobody listened to me, nobody cared what I said. Apparently at some point I called somebody a name and something very rude, and it apparently took a toll on her, but I don't remember doing that, and the principal did not care what I had to say at all. She was just, "You shouldn't have done that; it was very wrong." And just listening to people is very important, especially for those people that feel like they aren't listened to already, those people who are beaten down and discouraged and stuff. A lot of the times, it's from not being listened to and stuff, so definitely listen to people.

James: I feel like that happens a lot with teens too. Teens get kind of grouped in with like a little-kid kind of status.

Allison: They're not taken seriously.

James: They're not taken as seriously as I think they should be possibly, I don't know. Maybe it's why I am teen that I say that. I don't know. But I feel like it's important to listen to them, like Sam was saying. Make sure they get their words out.

Allison: Kids. Teens. Whatever, they like to use their hands. Drawing and even if it makes no sense and you can't read it, or whatever. It helps so much.

The hands-on design activities provided teens with an outlet where their voices could be heard and not silenced. Through this process, they engaged with deeper social justice issues impacting teens, such as negative stereotypes in the eyes of adults and the lack of educational opportunities for them at school.

Space for Informal Learning

During the second week of the YouthStudio, the first author led a popular education workshop, "Library, School, Community," to engage the teens in a conversation about the non-material aspects of the space. The purpose was to invite teens to think about how the Teen Space Architects project could be used to address broader social issues and concerns that mattered to them and other teens in Moore. Popular education was used as part of our ethnographic action research approach to gain feedback from the teens. We then used this information to inform future design activities. Figure 3 shows a picture of the workshop activity. Teens were asked to

write what they liked and disliked about the library, the school, and Moore on different colored Post-it notes. Then they were asked to put their notes next to the photos of the library, the school, and a picture that represented the Moore community.



Figure 3

Several important themes emerged from our popular education workshop. The teens’ comments about the library still remained focused on the material aspects, including couches, tables, and chairs, and they also discussed information-based materials, such as books, computers, and an iPad for a teen catalog, as well as the iPad charging station. However, when we asked teens to comment on what they liked and disliked about school and Moore, several key non-material issues became visible. Perhaps most strikingly, the teens explained that they don’t have enough time to learn in school—and they saw this as a huge problem. Their statements support Martin’s assertions that “many challenges stand in the way of youth learning.” Martin explains that school funding is often the cause,^{xlvi} and libraries often fill that gap where learning in school falls short. These points are quite clear in the following exchange between the lead author and the five teens who participated in the workshop.

[First author]: Cool, so let’s move on to school. So school . . .

James: There’s a lot more to hate.

[First author, referencing earlier comments from teens]: So . . . not enough time to hang out, feels rushed?

Laura: Yeah, it feels like you have little time to where the teachers can explain things and then it's like . . .

James: Here's your assignment, get out.

Laura: Yeah! And it's like wait a minute. I don't understand this, and then you have a few minutes to get to the other side of the building, 'cause I am [now] homeschooled, but I have been in many different elementary schools and junior high and the high school and a few private schools.

[First author]: [Turning to James] Have you had a different experience?

James: I haven't had a different experience necessarily. I do get the sense that it's kind of rushed and the fact the teachers don't have enough time to teach and that's definitely a problem. They have to get through everything, and I think that's where the problem of people not wanting to ask questions. . . . It's more like not wanting to waste other people's time. And I feel like with maybe a longer time period, and maybe that involves adding an hour to the day but extending each class by ten minutes would help out a lot.

[First author]: One question would be are there things you could build in the teen space that could fill the gap with things you aren't getting at school? So like if there was a way to create the time for other discussions and that could happen in the space?

Sam: Like tutoring?

James: Like by having a set time for people to come in and have a group study session and have a space for that. Like there's that one room right next to [the] secondary computer area . . .

Laura: The quiet room?

James: Yeah, the quiet room, and right next to that have an area where we can gather and get away from everybody else.

The teens later explained that a redesigned teen space at the Moore Public Library could address their problems with school by providing them and other teens with a more informal space where they could learn from each other through tutoring sessions. Through the popular education workshop, the teens had an opportunity think about their everyday experiences and begin to see the library redesign as a problem-posing educational strategy for addressing broader social and community issues, such as their negative experiences in school. As one of the teens, Laura, explained:

One of the things I talked about last time was having like a little board that the library staff manages and stuff like that, but it has information as far as certain

groups that meet at the library. Or like if we do something like that, there can be study groups that say “Hey, we’re studying this from this class at this time, come meet with us” type of a thing.

Here, we can see how the workshop allowed Laura to bring her interests from the initial meeting back into the conversation. She then used the discussion as a way to move beyond the material aspects of the library space and begin considering the Teen Space Architects program as an opportunity to address issues and problems in the community. Through this process, the teens began to see the community information board as a solution to some of the shortcomings of school, as well as the lack of physical spaces in Moore where teens could share information.

Community Information Exchange

During our initial meeting with the teens, they immediately talked about wanting a space in the library where they could share information with other teens. However, rather than developing a digital space online, they preferred the idea of a chalkboard. This idea, which was originally proposed during the first Teen Space Architects session, later became integral to the design process. In the following passage, teens discuss their interest in this idea with the instructor and graduate students during the first meeting of the program.

Laura: One of our ideas for this is to put on the wall, um, . . . a little glass case . . . with a cork board in it that, you know, the, uh, library staff has control over so nobody is putting anything out there that shouldn’t be up there, and it has stuff like, um, advertising for places that have, um, like lessons on how to play guitar, or drums, tutors. . . .

[Second author]: A community board?

Laura: Yeah! And if like a teenager band is looking for like a bass player that could be like, “Hey, e-mail us here if you know how to play bass. We need a bass player.” Or something like that. And . . .

[Second author]: Cool. And where are you wanting that? Do you want it in like the corner, or does it matter? You just want something like that?

Laura: Somewhere in there . . . yeah.

[Second author]: Cool.

Fred: Like a bulletin board like where they can attach stuff up there.

Laura: Yeah, yeah, yeah.

Adam: And for like teen events, like at the library.

Laura: Yeah, that would be a really good place to put that too.

In this passage we can see that the teens wanted a non-digital space where they could share information of interest to other teens. And Laura pointed out that the community information space could be used to share community events with teens as well as to facilitate informal learning outside the classroom.

From these and other conversations throughout the semester, we learned that there were very few places in Moore for teens to hang out. They didn't have a mall. The skate park was a problem because of an ongoing feud between skateboarders and BMX bikers, and the libraries in Oklahoma City and Norman, where there are more things for teens to do, were often too far away. This later led to another discussion about how the new teen space could be *the* place where information about community events for teens could be exchanged through the community information board. This idea was so important to the teens that the community information board became a centerpiece in their final design (see fig. 4).



Figure 4

Digital Literacy

The findings, so far, have focused on the things that mattered most to teens in redesigning the YA library space. We now consider how these findings contributed to the overall program goal, which was focused on helping teens develop digital literacy and leadership skills. In other words: “To what extent did the YouthStudio contribute to building the teens’ digital literacy and leadership skills as an outcome of the YA library space redesign?”

Through our research and engagement with the teens during the eight-session program, we learned that most of the teens developed digital literacy skills by being exposed to new technology and having opportunities to learn by experimenting with software around other teens in an informal setting. This form of learning was perhaps most visible during the SketchUp

tutorial led by the second and third authors of this paper. During the session, the teens listened to the graduate students/librarians and followed their instructions. However, the teens learned the most through the hands-on activities. They used the library's laptops to try out SketchUp for the first time, exploring various design elements of the software through trial and error. This type of experimentation and play has been described as integral to the "messaging around" process,^{xlvii} which is considered to be a deeper level of teen engagement and learning with technology.

Ron and Sam had an interaction during the session that reflected Sam's growing ability to use the SketchUp software:

Sam: You can never use the structure unless there is like gray areas there.

Ron: How do you make it?

Sam: Um, you tell it in circles. Take your draw tool there. Take it from that line over there.

[Second author]: Ah, that's cute.

Sam: And that end there . . . yes. Drag it to the other end.

We witnessed several moments during the session when Sam told the other teens in room what he was making. He was messing around, which allowed him to learn how to use the software. At one point, Adam explained to the other teens how to do something. James, another teen with less of an interest in and skill with technology, responded, "Dude, how did you find that?" This process of messing around led to a deeper level of engagement with the technology, and it also helped to promote leadership among the teens.

Leadership

There were several moments during the semester when the teens had the opportunity to develop leadership skills. Teen leadership was perhaps most visible in instances such as the one seen above, when they showed each other how to use the SketchUp software. Whenever our research team observed these activities, we invited teens to stand up in front of the room and teach the others how to carry out specific design tasks using the software. Toward the end of the session described above, Adam spent more time figuring out how to use the software than anyone else. He seemed quite content to jump up in front of the room to show the other teens what he had learned. Adam was often the quietest one in the group. We believe his actions reflected his growing ability to lead.

James was another teenager who showed leadership qualities during the program. However, unlike Adam, James was not confident with his technology skills. Rather, his leadership was visible in other important ways. For example, when another teen created something using SketchUp, James was often the first to compliment the teen. "No, that's perfect" and "That looks great" are two of the many comments he made in response to what other teens designed using the software. In this way, James reflected a "self-awareness" and "social skill" that have been

described as essential components of leadership.^{xlviii} His thoughtfulness and positive encouragement to others, who were perhaps more skilled with the technology, reflected his ability to understand his own strengths and weaknesses and to use them to mentor other teens. In this way, he became an important leader, and he helped move the program to completion and success.

Discussion

We now turn to discuss the implications of our findings. We begin by describing what our findings support in the literature and then outline what we believe to be the contributions of our research to the existing literature on public library YA space design. We then discuss some of the challenges of the project, as well as the research limitations. We conclude with recommendations for how to improve the YouthStudio in the future as a way to use critical pedagogy and ethnographic action research to guide the design, implementation, and evaluation of public library YA space design with teens.

Connecting Furniture and Study Spaces to Broader Social Issues

Our analyses support findings from previous studies that have shown how and why teens value physical comfort and spaces for informal learning in public libraries. As we have tried to show, our discussions and activities with the teens explored how to design comfortable spaces for teens to hang out, study, and access information. In their research on public library YA spaces, Agosto, Bell, Bernier, and Kuhlmann found that 86.4% of librarians and 70.0% of teens felt that “physical comfort was tied to physical furniture,” and 36.3% of librarians and 40.0% of teens “identified their YA library spaces as desirable study spaces.”^{xlix} While our findings support this and other studies that engage teens in library space design activities, we also believe that our research makes a contribution to the literature through its investigation of how teens’ participation in YA library space design activities can expose broader community and social concerns among teens, which they can have an opportunity to discuss and address through their engagement in a library design program.

The use of critical pedagogy in our “Library, School, Community” workshop allowed us, as ethnographic action researchers, to study teens’ concerns about the following issues: the lack of teen spaces in Moore; the inadequacy of schools to support teen learning; and the scarcity of information by and for teens in the community. All of these issues drove the teens in our program to think more deeply about how material aspects of the library YA space redesign, such as furniture and lighting, could be approached in a new way to address the teens’ broader concerns about their community and society. In this way, we believe our research exposed social justice issues—such as equitable access to information, education, and comfort—which motivated our teens’ participation in the project. In this paper, we also sought to contribute new ways of thinking about critical pedagogy in public libraries as a growing area of theory, research, and practice in library and information science. We believe popular education provides a much-needed perspective, particularly to help address the inherent power differentials in community–university partnerships, as well as for connecting the dots between the local and structural contexts shaping teens’ everyday lives. Popular education, as a form of critical pedagogy, provides an opportunity for scholars to work closely with teens to understand how their concerns

can impact the design, implementation, and evaluation of public library YA spaces. The use of critical pedagogy in such contexts can also lead to positive outcomes for teens, as we witnessed in this comment from Sam about the program during our final teen focus group: “It felt good to know what I’m saying is being heard.”

Limitations and Recommendations

Along with the program’s successes, we also realized that there were several limitations with both the research and the teen program in Moore. In terms of the program, both the community and university partners were disappointed with the low teen turnout for the program. During the lead author’s interview with the library branch manager, the manager explained that she was pleased with the success of the program, but she expressed disappointment that more teens were not able to participate in such an exciting opportunity. Through the conversation, we determined that moving the time of the program from 6:00 p.m. to 4:00 p.m. would probably make it easier for more teens to participate. We also wished we had the opportunity to lead an exercise similar to the one described by Steele, in which the teens at the Free Library of Philadelphia engaged in action research in the community to acquire a greater depth of data to inform their designs.¹ Unfortunately, we didn’t have the time and resources to support our teens in visiting other teens in the community and to get other teen input on the design, but we should have made the time. In the future, we would suggest that the YouthStudio model include a module to train teens in action research methods, which would allow them to gain more insights from other teens and librarians outside of the program.

In terms of the research, we were surprised to find that the teens valued a physical community information board, as opposed to a digital space to share information. This was also something that was perhaps more easily addressed than some of the other virtual platforms that might be more difficult for the library to develop and oversee. We also wished we had incorporated the “high/low/hope” exercise, which can be found in the Detroit Future Media Guide to Digital Literacy, into our program.¹ⁱ In this exercise, participants are asked to fill out Post-it notes to include their comments and feedback about the workshop session’s high points, low points, and hopes for the next session. This activity would have provided researchers with additional data on what teens thought about the design activities as well as an ongoing evaluation tool for assessing the YouthStudio program.

Conclusion

In this paper, we described how research was used to guide the design, implementation, and evaluation of a public library YA space design program. We presented findings from our study of the Teen Space Architects program at the Moore Public Library, which used community informatics theories, critical pedagogical approaches, and ethnographic action research methods together as a model of engaged scholarship with teens and librarians. Through our study, we learned that teens seek spaces in libraries that support comfort, informal learning, and the exchange of community information as the most essential aspects of public library YA spaces. While these findings support previous studies, which found that physical comfort and having spaces to study are important to teens in public library YA spaces, we explained how our study used critical pedagogy to look deeper at the broader issues in the community that influenced

teens' decisions about the need for physical comfort and for spaces where teens can hang out and study. We also elaborated on the ways in which our YouthStudio approach assisted teens in deepening their digital literacy and leadership skills in the process, which were two of the goals articulated by the library as our community partner. We concluded with a list of program challenges and limitations with the research that we experienced and then provided recommendations for future YouthStudio programs focused on designing public library YA spaces with teens and librarians through community–university partnerships.

Notes

ⁱ Mizuko Ito et al., *Connected Learning: An Agenda for Research and Design* (Irvine, CA: Digital Media and Learning Research Hub, 2013), 8.

ⁱⁱ For example, see Meghann Kuhlmann, Denise Agosto, Jonathan Pacheco Bell, and Anthony Bernier, “Learning from Librarians and Teens about YA Library Spaces,” *Public Libraries* 53, no. 3 (2014): 24–28; Denise E. Agosto, Jonathan Pacheco Bell, Anthony Bernier, and Meghann Kuhlmann, “‘This Is Our Library, and It’s a Pretty Cool Place’: A User-Centered Study of Public Library YA Places,” *Public Library Quarterly* 34 (2015): 23–43; and Shari Ann Lee, “Teen Space: Designed for Whom?” (PhD diss., University of California, Los Angeles, 2009), 8.

ⁱⁱⁱ Sandra Hughes-Hassell, Lewis Hassell, and Denise E. Agosto, “Moving Beyond the Stereotypes: Seeing Urban Teenagers as Individuals,” in *Urban Teens in the Library: Research and Practice*, ed. Denise E. Agosto and Sandra Hughes-Hassell (Chicago: American Library Association, 2010), 9–22.

^{iv} Kimberly Bolan, “The Need for Teen Spaces in Public Libraries,” Young Adult Library Services Association (January 2008), <http://www.ala.org/yalsa/guidelines/whitepapers/teenspaces> (accessed June 29, 2015).

^v Anthony Bernier, “Spacing Out with Young Adults: Translating YA Space Concepts into Practice,” in *Urban Teens in the Library: Research and Practice*, ed. Denise E. Agosto and Sandra Hughes-Hassell (Chicago: American Library Association, 2010), 114.

^{vi} Galen Cranz and Eunah Cha, “Body-Conscious Design in a Teen Space: Post-Occupancy Evaluation of an Innovative Public Library,” *Public Libraries* 45, no. 6 (November/December 2006), 48–56.

^{vii} *Ibid.*, 53.

^{viii} Kuhlmann et al., “Learning from Librarians and Teens about YA Library Spaces.”

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- ^{ix} Hayden Bass et al., “National Teen Space Guidelines,” Young Adult Library Services Association (March 5, 2015), <http://www.ala.org/yalsa/teen-programming-guidelines> (accessed June 29, 2015).
- ^x K-Fai Steele, “What We Think Actually Matters?,” *Young Adult Library Services* 11, no. 4 (Summer 2013): 12–15.
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- ^{xii} Steele, “What We Think Actually Matters?,” 15.
- ^{xiii} Tom Denison, Mauro Sarrica, and Larry Stillman, “Introduction,” in *Theories, Practices and Examples for Community and Social Informatics* (Clayton, Victoria: Monash University Press, 2014), 16.
- ^{xiv} Andrew Clement and Leslie Regan Shade, “The Access Rainbow: Conceptualizing Universal Access to Information/Communication Infrastructure,” in *Community Informatics: Enabling Communities with Information and Communication Technology*, ed. Michael Gurstein (Hershey, PA: Idea Publishing, 2000), 32–51.
- ^{xv} Michael Gurstein, “Effective Use: A Community Informatics Strategy Beyond the Digital Divide,” *First Monday* 8, no. 12 (December 2003).
- ^{xvi} Randy Stoecker, “Is Community Informatics Good for Communities? Questions Confronting an Emerging Field,” *Journal of Community Informatics* 1, no. 3 (June 2005).
- ^{xvii} Denison, Sarrica, and Stillman, “Introduction,” 19.
- ^{xviii} Paulo Freire, *Pedagogy of the Oppressed* (New York: Continuum, 1970/1993), 79.
- ^{xix} Chip Bruce and Ann Bishop, “Community Informatics for Youth: Using the Extension Network to Recruit Future LIS Professionals,” Final Report to the U.S. Institute of Museum and Library Services (Champaign, IL: Graduate School of Library and Information Science, University of Illinois, 2011), 3, <http://hdl.handle.net/2142/28563> (accessed June 29, 2015).

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^{xxi} Virginia Eubanks, *Digital Dead End: Fighting for Social Justice in the Information Age* (Cambridge, MA: MIT Press, 2011), 105–7.

^{xxii} Colin Rhinesmith and Martin Wolske, “Community Informatics Studio: A Conceptual Approach,” in *Conference Proceedings—CIRN Community Informatics Conference “Challenges and Solutions”: 13–15 October 2014, Monash Centre Prato, Italy*, ed. Larry Stillman and Tom Denison (Centre for Community and Social Informatics, Monash University, 2015), http://www.ccnr.infotech.monash.edu.au/assets/docs/prato2014papers/rhinesmith_wolske_2014_ci_studio_framework.pdf (accessed June 29, 2015).

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^{xxvi} Freire, *Pedagogy of the Oppressed*.

^{xxvii} Elmborg, “Critical Information Literacy,” 193.

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- ^{xl} *Ibid.*, 3.
- ^{xli} Wolske, Rhinesmith, and Kumar, “Community Informatics Studio,” 169.
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¹ Steele, “What We Think Actually Matters?”

^{li} Allied Media Projects, “The Detroit Future Media Guide to Digital Literacy,” 2014, 33, <https://www.alliedmedia.org/news/2014/06/21/detroit-future-media-guide-digital-literacy> (accessed June 29, 2015).