Friendship, Participation, and Site Design in Interest-Driven Learning among Early Adolescents

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Abstract: Increasingly, learning scientists are recognizing the importance of studying and analyzing learning across the multiple settings of youths' lives. We hypothesize that the potential for positive long-term outcomes for youth in interest-powered learning environments is shaped by the degree to which programs cultivate personal connections that can expand access and strengthen participation in settings rich with resources for interest development. To investigate this hypothesis, we draw on evidence collected by youth researchers as part of a study of five learning environments that aim to support cross-setting pursuit of interests. Findings from this study support claims that youth do facilitate access to valued learning spaces for their peers, and that friendships can be central to sustaining interest in activities. The data from this youth ethnographic study supports placing a priority on *relationships*, as well as content, within sites for interest driven learning.

Introduction

Increasingly, learning scientists are recognizing the importance of studying and analyzing learning across the multiple settings of youths' lives (Bevan, Bell, Stevens, & Rafzar, 2012; Jackson, 2011). One of the key catalysts for cross-setting learning is *interest* (Barron, 2006; Bell, Bricker, Tzou, & Baines, 2012), which refers to engagement with particular content that develops through interactions with others around that content (Hidi & Renninger, 2006). Interest-driven learning environments are ones that seek to organize activities that allow youth to pursue and develop existing interests and develop new ones (Azevedo, 2013; Edelson & Joseph, 2004; Ito et al., 2013).

In this paper, we explore the role of peers and friends in shaping interest development and sustaining participation in interest-driven learning environments. We hypothesize that the potential for positive long-term outcomes for youth in interest-powered learning environments is shaped by the degree to which programs cultivate personal connections that can expand access and strengthen participation in settings rich with resources supportive of interest development. To investigate this hypothesis, we draw on evidence collected by youth researchers as part of a study of five learning environments that aim to support cross-setting pursuit of interests. Our study findings point to exciting possibilities, such as how to design for learning spaces that support friendship as one path to expanding possible futures for youth.

Theorizing the Role of Peers in Participation in Interest-Driven Learning Across Settings

Interest-driven and out of school settings are particularly valuable avenues for experiencing competence and leveraging expertise from their families and communities (Calabrese Barton, Tan, & Rivet, 2008; Gutiérrez, Morales, & Martinez, 2009). Increasingly, policy makers and researchers alike have called for tighter linkages between formal and informal settings for learning, to better leverage diverse youths' expertise and enable deeper forms of "life-wide" learning (Banks et al., 2007). Tighter linkages are especially important for providing youth with recognition for accomplishments outside of school in ways that are consequential for youth's social futures (Riconscente, Kamarainen, & Honey, 2013).

Within this line of research on cross-setting and interest-driven learning, however, there has been limited attention to the role peers play in interest-driven learning within and across settings. Peer connections are potentially important, however, because it is through networks that many young people discover new interests, and friendships developed within interest-driven learning activities may help to sustain participation in them and, subsequently, facilitate deepening of interests. Evidence from developmental psychology supports the claim that peers are an important reason why adolescents sustain engagement in sports and arts activities (Patrick et al., 1999). In some cases, peer connections may also benefit youth, because they broker access to activities where youth can develop new knowledge and skill (Dika & Singh, 2002; Stanton-Salazar & Dornbusch, 1995).

Our focus in this analysis on peer relationships is supported by evidence from studies on youth development. One reason to study peers in the context of interest driven learning sites is that many sites of this kind cater to adolescents, and during the adolescent years peers become a more important influence than in other stages of development (Berndt, 1982; Hartup, 1993; Savin-Williams and Berndt, 1990). During adolescence, as peer groups become more salient, other relationships can be redefined for young people, who often report that

they can most "be themselves" when they are with their peers (Savin-Williams and Berndt, 1990). Studies also show that peers play an important role in shaping motivation for academics (Juvonen and Wentzel, 1996), an outcome of concern when discussing cross-setting learning and the impact of interest-powered sites.

By attending to youths' own reports of the role of peers in their experience of interest-driven learning we can begin to consider the features of learning environments that may support or inhibit development of relationships. Deepening this understanding may hold lessons for site design practices including the general point that to design appealing and effective learning spaces for young people involves attending to both content learning and peer relationship development.

Methodology

Data for this analysis was gathered from a participatory youth ethnographic study of sites where young people engage in interest-driven learning. The current study is principally an observational study, where youth are part of designed learning environments. The team developed a youth participatory research component that provided training in interviewing techniques, use of structured protocols for conducting peer and mentor interviews, and activities in which youth traced their own experiences of connected learning across setting and time. The youth ethnography took place as a series of online video conferences that were facilitated by the research team. This participatory research connected nodes of youth researchers that were geographically distributed and met in web-mediated settings (in this case Google hangouts). The infrastructure we developed, including training materials, a wiki, hangouts, email communication, and stipends, sustained research activities over a 10-week program.

This research was conducted under the umbrella of the Connected Learning Research Network (CLRN), which is investigating and analyzing the impacts of today's changing media ecology on learning (Ito et. al., 2013). This participatory youth ethnography is part of a larger mixed-methods research study that examines children's participation in connected learning environments and the relationship of participation to valued outcomes of interest development, persistence, and school belonging.

Youth ethnography was selected as a methodology because it creates an opportunity for young people to become involved in documenting and analyzing their experiences in these environments including the kinds of opportunities available to them, and to identify what counts as a "quality" opportunity to young people (Rubin & Jones, 2007). The rationales for including participatory research in an ethnographic study of learning environments include the awareness that young people have a unique insider perspective on the activity in those spaces and can contribute in valuable ways to the construction of knowledge about what supports learning (Cammarota & Fine, 2008, Sabo-Flores, 2008). Engaging in participatory research can also serve as a positive developmental opportunity for young people in that it invites them to participate in practices of investigation and analysis of systems (Mitra, 2004). Research of this nature disrupts the dichotomy between researcher and research participants, with an expanded belief about who should generate knowledge to inform policies and practices (Cook-Sather, 2002, Morrell, 2008).

Participants

Sites

Five sites participated in the youth ethnography. Table 1 lists program pseudonyms and a description of each of the site's central activities. The sites were geographically distributed, with one site on the west coast, one in the rocky-mountain west, one in the southeast, and two in the northeast United States.

Table 1: List of Sites

SPARK	A youth program for documentary filmmaking.
Community Bridge	A school based school community service program connected to a national initiative focused on the improvement of teaching writing.
The SPOT	An after-school youth program that offers arts and humanities courses.
NEXT School	A school where students take courses in game design, critical research and entrepreneurship.
Freespace Library	A library teen program that was in the process of designing a new technologically rich space.

Youth

Roughly five youth from each of the five sites were hired to participate in a paid internship within this research project. Most of the youth were from nondominant backgrounds. The participants included black, Latino, and white youth from low and middle income communities.

Sources of Evidence

Youth researchers recorded a total of 82 peer and 12 mentor interviews, 27 "interest stories" detailing the development of an interest or hobby, and they also submitted 22 brief digital self-introductions. Eleven youth submitted maps showing their daily and weekly routines that were accompanied by audio explanations of what they depicted on their maps.

Peer Interviews

The primary source of data used for this analysis is a set of 82 semi-structured interviews where youth at the sites recruited peers for the study. The youth researchers adapted a protocol for eliciting details about long-term, interest-driven projects, the development of expertise in an area of interest to them, and the formation of new social ties through participation in connected learning.

Mentor Interviews

Youth researchers recruited and interviewed mentors who played a role in their own interest development or learning at their site. The interviews included questions about the mentor's philosophy towards work with young people and the supports and challenges to their work.

Interest Maps

Some of the youth participants documented their everyday experience by creating a hand drawn map showing their daily and weekly routines related to an interest. These were accompanied by audio explanations of what they depicted on their maps. Elements in the map included people, places, and resources that were important to helping them pursue an interest.

Interest Stories

To deepen our understanding of interest development, we asked youth ethnographers to articulate stories of their own interests. The youth participants drew a storyboard depicting the formation of an interest, how the interest figures into their life currently, and where they see themselves taking the interest in the future. These storyboards were also accompanied by audio narrations.

Personal Introductions

At the outset of the project youth recorded brief audio introductions describing thoughts and questions relating to participating in a study of their site, and detailing some of their personal interests.

Approach to Analysis

In an effort to attain a valid coding scheme and inter-rater reliability, the research team established a multi-step coding process, which included the development, testing and refinement of codes throughout a series of coding summits. Coding clusters were developed from the project's various qualitative data sources. Our analytical process resulted in three broad groupings: one pertaining to the lead interest-based activity, another pertaining to the building of cultural capital (interest, expertise, and identity development), and a third pertaining to the building of social capital (connections with others), which also contained a series of child codes to be used for co-occurring patterns and other forms of qualitative and quantitative analysis. To test this coding scheme, third party validity testing was used, and we achieved an inter-coder agreement of at least 80% for all codes. Once validity was established, codes were refined through a series of reliability testing using kappa statistics. This multi-step coding process using defining guidelines and principles established inter-rater reliability and aligned with our research questions and theoretical framework related to connected learning practices.

Results

In our data we observed peers mentioned often in interviews and data that the youth ethnographers collected about their interest pursuits. However, peers fill different roles in people's experiences across sites. The central theme that that we highlight in our findings is that sites vary with respect to how friendship figures into participation at the site. Interviews from The SPOT contained many examples of young people being introduced to the site by peers, both friends and near-age family members. At two of the sites, Community Bridge and SPARK, the primary story emerging from interviews was that pursuit of the activities at the site led to new friendships. These two sets of results illustrate how peers might impact interest development in different, but equally important ways.

Peers as Brokers

The data from The SPOT suggests that friends and family in some cases figure prominently in how people initiated their involvement with the site. A common them in interview responses was that friends and family verbally shared information about the types of activities and opportunities for learning at The SPOT. Peers shared that this interest-powered site was "open" and "fun," and in some cases young people joined their peers to visit The SPOT just to try it. After young people started going to the site, they report that they began to develop or expand upon interests in activities at The SPOT such as making music, dancing and video production. This is an encouraging finding in part because it shows that peers in some cases do facilitate access to expansive opportunities for interest development.

One of the young people at The SPOT clearly recalls how they were introduced to the site, first from interest sparked by a friend discussing the site, and then how they found interesting opportunities that they began to pursue. "Well, I have a friend who goes there...and he told me about how he does his own music there. I got interested in it, and I asked him if I could go with him one day. He took me, and I enjoyed it so much that I signed up right away. I started doin' dance and music production myself." This type of story was common at this site, with 9 of the 20 peer interviews containing similar comments about the role of peers in introducing the young person to new activities at The SPOT, which has deepened some personal interests.

Data from The SPOT suggests that peer word of mouth can be a powerful mechanism for promoting access to valued spaces for interest development. In this case peer recruiting was an organic process, initiated because young people wanted others to know about the interesting opportunities at the site. This process was supported both by the fact that young people found the site to be offering valuable opportunities, and because the site is open to newcomers who can begin taking part in activities simply by showing up.

Forming New Connections

Many of the youth interviewed at the Community Bridge and SPARK reported that the most interesting part of being involved in this program was meeting new people. We saw this theme echoed in 20 of the 39 peer interviews across these two sites. As one interviewee stated, "...connecting with people I would say that's the most interesting thing about this project because you get to see the world through their eyes, you get to relate to them, and um you get to see stuff and do stuff that you probably haven't even thought of." At both SPARK and Community Bridge youth engaged in work that prompted them to learn skills with digital media, yet making new personal connections was more often reported to be the *most* interesting aspect of participating in the programming.

Both of these sites offered programming that revolved around joint activity. In the case of Community Bridge, students collaborated on community service oriented senior projects where they created digital stories, videos, and blogs that chronicled their work. At SPARK the youth participants worked alongside college students producing documentary films on a variety of social issue topics, most recently education reform. Through these projects team members at both sites had to find ways to work together drawing on the expertise distributed throughout their groups in order to accomplish a shared task. Also of note was that the projects at both of these sites required that participants have contact with community members outside of their organization in order to gather information to inform their projects.

Youth from these sites reported on new connections with peers who were part of their project teams, as well as new connections they formed through their community outreach. We heard similar results, though in smaller numbers, from other sites, including Freespace Library and The SPOT, where meeting new people was discussed as one positive aspect of participation.

Discussion

The findings from this youth ethnography support the assertions of other studies that emphasize the importance of peer connections in adolescence (Savin-Williams and Berndt, 1990). Peers are mentioned often as young people talk about their experiences at sites where they pursue their interests. What we find thought-provoking is that across the sites that we collected data with, there was some variation in how peers fit into the stories young people told about what brought them to sites or sustains their interests. Trying to understand the multiple forms of peer connections that young people experience in more nuanced ways will be an ongoing task of this longitudinal study. This data set supports some minor but meaningful claims about the role of peers and friendship in interest driven learning.

One claim is that youth do facilitate access to valued learning spaces for their peers. Our results foregrounded young people as brokers to valued spaces, especially at one site within our study where peer introductions was the primary mechanism through which people were introduced to the site. At this site open access supported the process of peer recruitment by allowing for young people without prior experience to come to the space through the invitation of friends or family. Unfortunately, this may not be a common experience for youth with limited access to resource rich spaces. We can think of at least two ways to expand upon this finding in future research. First, by studying the powerful appeal of peer recommendations and what encourages young

people to take up an invitation to try a new activity. Second, by investigating in closer detail the features of learning spaces that can support young people in feeling comfortable and prepared to share their experiences with peers. Both of these lines of inquiry make the peer connections central as a potential form of access to valuable resources.

Our second claim is that developing friendships is often a key element of interest-driven learning. Many times, even in the context of new media and technology rich spaces, it was personal connections that emerged as the "most interesting" aspect of activity. We suggest some consideration for research and design work in interest-driven learning spaces from this finding. The design of sites where "making new friends" was reported often centered activity around participating in a joint endeavor that required some form of outreach, such as community based research to inform a documentary film. This design encouraged both meeting new people and shared activity that promoted deep and sustained personal engagement. Friendships and engagement with activity in these cases were not detached: rather they were both integral to the positive experience that young people reported at their sites. Activity supported the development of new peer connections, and these new friendships made the sites an interesting place to engage in activity.

The data from this youth ethnographic study supports placing a priority on *relationships*, as well as content, within sites for interest driven learning. In the stories that young people shared through interviews and self-documentation friendship was a constant presence as they described their initial discovery and pursuit of interests. These findings may be of use in future research and design of interest-driven sites for learning by attending to factors within and across contexts that support peer connections.

Endnotes

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