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Informal learning organizations as part of an educational ecology: Lessons from collaboration across the formal-informal divide

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Abstract How do informal learning organizations work with schools as part of a broader educational ecology? We examined this question through a comparative case study of two collaborative efforts whereby informal arts education organizations, a children's museum and a community-based organization, worked with an urban school district to redefine the provision of educational services for children and youth. Grounded conceptually in organizational theory, our study identified factors that enable and constrain collaboration across the formal-informal divide. We argue that examining the dynamics of cross-sector collaboration as occurring within a regional ecology of diverse learning organizations and broader institutional context provides insights into the outcomes of joint work. Our findings have implications for designing collaborations between schools and informal organizations that contribute to their respective strength, as well as the broader regional educational ecology in which they reside.

Keywords Informal learning organizations · Collaboration · Educational ecology · Institutional context

While many efforts to improve educational opportunities for children and youth in the United States focus on public school systems, this reform strategy often overlooks the range of informal educational organizations that host learning environments. Many communities have a rich and varied set of "informals" that host audience-driven learning environments, such as those found in museums, community organizations, libraries, zoos, aquaria, 4H, and scouting. Informals complement and extend learning opportunities for children and youth, contributing

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to their learning in domains such as art (Halverson 2012; Knutson and Crowley 2010; Hetlund et al. 2007) and technology (Ito et al. 2009). The opportunities for learning in informal settings are particularly well documented in science (Palmquist and Crowley 2007; Bell et al. 2009; Calabrese Barton and Tan 2010; Falk and Dierking 2010; Gutwill and Allen 2012).

Given the reach of informals and their potential to support the learning outcomes they promote, it is no surprise that there is growing enthusiasm in the education field for collaboration between informals and formal K-12 school systems. American schools have increasingly sought to partner with informals that support their curricular goals (Phillips et al. 2007). In arts education, the area we examine in this article, informals have become key providers of school-based educational experiences and professional development for teachers, in addition to providing out-of-school learning opportunities for students (Bodilly et al. 2008). While our work addresses the American context, the desire to foster more collaboration between the formal and informal sectors is also present in the United Kingdom, where policy documents have identified learning outcomes that can be pursued across settings (Anderson 1999; MLA 2008).

Despite growing enthusiasm for informal-formal collaboration, limited empirical work has examined the factors that contribute to its success or failure. Available evidence suggests that collaborations are difficult to launch and sustain. Reflecting on an evaluation of ten museum-school collaborative programs, the James Irvine Foundation (2005) concluded, "It can be difficult ground to cover, requiring big commitments of time and energy from already-strapped staff and involving programmatic cooperation between institutions with different charges, cultures and operating approaches" (p. 3). Exploring the structural and social properties of collaboration across the formal and informal divide in science education, Bevan et al. (2010) found that good collaborations led to rich learning experiences and promoted equity, but required significant time, energy, and shifts in scope that were often not anticipated or recognized by participants and funders.

Further insight into the dynamics of collaboration with the formal system may be gleaned from a growing body of research examining how American schools and districts are working with external support providers, particularly in light of accountability demands from policymakers and the public (Coburn 2001; Coburn 2005; Honig 2004). For example, Honig (2009) described work between a district and an external reform organization, in which staff from the external organization took a central role in core implementation of a shared reform program; she contrasts this experience with another district collaboration where the relationship remained arms length and advisory in nature. Honig posits that tighter organizational integration and joint work are factors that support a collaborative effort achieving its aims. Similarly, Honig and Ikemoto (2008) describe the relationship between the Institute for Learning (IFL), a university-based reform organization, and its partnering school districts as an adaptive assistance relationship that emphasized deep engagement in joint work addressing a specific problems of practice. However, IFL's ability to achieve engagement in robust collaborative work was uneven over time and across districts, pointing to how difficult it is to enact collaborative arrangements. Coburn et al. (2008) identify some of the specific challenges inherent

in collaborations between school systems and researchers. Their case study of one such collaboration found that district leaders struggled to ensure that their knowledge of practice informed the design of reforms due to status issues, which resulted in researchers dominating design decisions. Yet resulting implementation of designs was challenged by the lack of authority researchers had over practice. While not speaking to our specific focus–collaborations between informals and formal educational systems–these accounts provide further evidence of the challenges inherent in cross sector collaborative improvement work in education.

Given the potential that informal-formal collaboration has in expanding learning opportunities for children and youth, but also the challenges it must overcome, a better understanding of the factors that contribute to successful collaborations is a critical issue for educational change (Bevan et al. 2010). The purpose of our study was to uncover conditions that enable and constrain collaboration and the potential benefits and costs of collaborative activity. We examined these issues through a comparative case study of two informal-formal partnerships through a children's museum and a community-based organization (CBO) worked with an urban school district to redefine the provision of educational services. In the case of art education, where various pressures have been pushing art out of the American school curriculum for a number of years, CBOs and museums have stepped into become major providers of services for school students—through field trips, afterschool programs, and even teacher professional development. Our two cases identify several conditions that shape the extent to which informals become subject to the rules and pressures of the formal system.

Our paper is written primarily from the point of view of the informal organizations. By providing in-depth case study descriptions of the trajectory of their partnership with the formal system, we bring a new perspective to the literature. Our primary argument is that examining the dynamics of cross-sector collaboration–as occurring within a regional ecology and broader institutional context–provides insights into the outcomes of joint work. In the past, researchers have examined informal-formal collaborations as if the formal and informal worlds are separate educational systems, despite important interactions that exist between them (Bevan et al. 2010). We see cross-sector collaborations as existing within a regional educational ecology comprised of diverse organizations providing educational services to youth.

From the perspective of the individual learner, the ecology metaphor has been used to call attention to the variety of settings in which an individual engages in learning (e.g., Barron 2006; Jackson 2011). The learning ecology idea has been in play for several decades. For example, Bronfenbrenner's (1979) ecological model conceptualizes youth development across multiple contexts, including the various microsystems where youth have direct contact. These microsystems span formal education systems (e.g., schools), informal learning settings (e.g., museums) and organized or semi-formal activities such as afterschool programs (Akiva 2012).

Here we extend the ecology metaphor to focus on the *organizational* learning ecology. By this, we refer to the network of organizations in a locality that provide learning opportunities for youth (Knutson et al. 2011). Viewing formals and informals as participants in an urban educational ecology contributes to our understanding of the factors that enable and constrain collaborative educational

reform. By employing the language of ecology, we deliberately call attention to two properties: *diversity* and *interdependence* (Knutson et al. 2011). First, an ecological perspective emphasizes the *strength of diversity*. Just as biodiversity is a measure of the health of an ecosystem, diversity in the organizational forms that provide organized educational activity in a region are indicative of a robust learning ecology. When diversity is viewed as an advantage, we can appreciate how organizations can capitalize on their strengths and resources rather than submitting to a narrow homogenized notion of quality education. Second, the ecological perspective calls attention to the idea of ecosystems or *interdependence*. Ecologies, both biological and organizational, are characterized by an interdependent network of relations among constituent entities. Organizations depend on others for resources to survive. Organizations with control over resources, such as policy-makers and foundations, therefore shape the nature of offerings in the ecology. By attending to the interdependence of organizations in an ecology, we can better understanding the evolution of educational program offerings in a region.

Framework for analyzing organizational collaboration

We look to research on inter-organizational collaborations to understand the micro-processes of collaboration across the formal-informal boundary. Research and theory on inter-organizational collaboration suggests that partnerships have the potential to address complex problems or processes (e.g., educational improvement), but that the success of a given partnership is shaped by the structure of the collaborative arrangement (Thomson and Perry 2006). Collaboration is defined as inter-organizational activity designed to achieve desired ends that a single organization could not achieve on its own (Wood and Gray 1991). Empirical work that examines collaborative arrangements as a specific organizational form is warranted because partnerships are governed by the dynamics of informal social cooperation rather than traditional hierarchical forms of organizing (Thatcher 2004).

At the heart of our analytical framework are the: (1) motivations for engaging in collaboration; (2) processes of collaboration; and (3) outcomes of collaboration (Fig. 1).

First, the literature identifies a number of *motivations* for organizations to collaborate. Collaboration may enable organizations to manage uncertainty in their environment (e.g., Wood and Gray 1991). Organizations are motivated to collaborate in situations when each partner has resources that the other partner needs (Chen and Graddy 2005; Gray 1989; Gray and Wood 1991; Pfeffer and Salancik 1978; Thomson and Perry 2006). And complex issues, such as education reform, are difficult for any one organization to solve on their own (O'Toole 1997; van Bueren et al. 2003; Lundin 2007; Thomson and Perry 2006). Our study aimed to understand conditions that motivated collaboration between formal and informal organizations in our two focal partnerships.

Second, while many case studies of collaborative efforts have treated the *processes* of collaboration as a "black box" (Wood and Gray 1991), a growing body of empirical work aims to unpack this process. Thompson, Perry and Miller (2007)

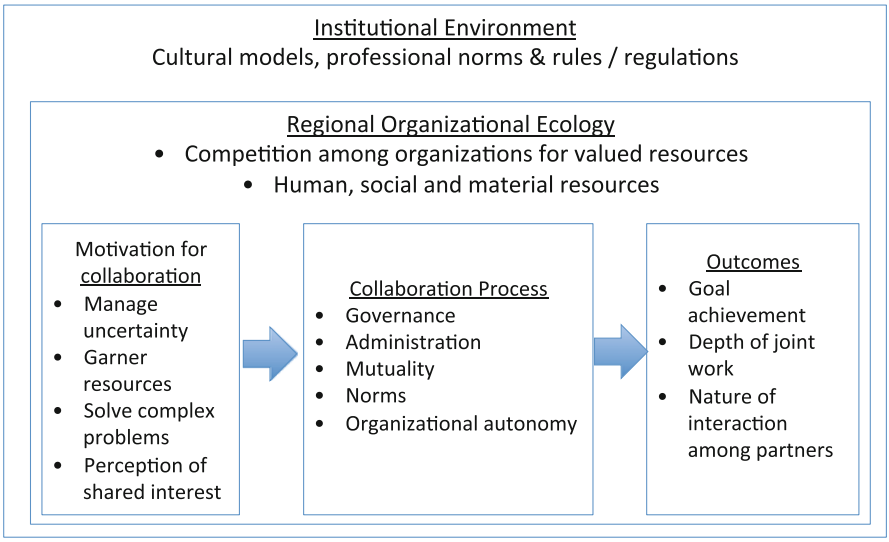

Fig. 1 Analytical framework: (1) motivations for engaging in collaboration; (2) processes of collaboration; and (3) outcomes of collaboration

drew on prior research to develop a model of the collaboration process composed of five dimensions. The model includes two structural components: *governance*, or how decisions are made, and *administration*, the practices that move governance to action. Social capital features include *mutuality,* the existence of mutually beneficial interdependences based on shared or complementary interests, and *norms* of reciprocity and trust. Finally, the collaboration process is complicated by issues of *organizational autonomy* that arise due to the tension between organizational self-interest and collective interest. These five dimensions have been operationalized and examined empirically, providing evidence that they do in fact influence collaboration processes and outcomes (Thompson et al. 2007; Thompson et al. 2008). This framework provides a set of categories for examining the nature of the collaboration process in our two cases.

Third, the literature has identified a wide range of potential *outcomes* that can be examined when studying the phenomenon of collaboration. These include goal achievement such as problem resolution (Thomson et al. 2008), intensity of collaborative activity (Legler and Reischl 2003), the nature of social interaction (Thomson et al. 2008; Legler and Reischl 2003) and the creation of structures, shared meaning and shifts in power distributions (Thomson et al. 2008). Viewing goal achievement as the most critical outcome of a collaborative effort, we examined participants' perceptions of the extent to which the partnership met their expectations, with respect to their joint work.

Understanding the factors that enable and constrain cross-sector joint work requires looking beyond dynamics internal to the collaboration to include the context within which collaboration emerges (Sharfman et al. 1991). In our framework, we consider these three phases of any particular collaboration process as

existing within a larger *regional organizational ecology* governed by competition for valued resources. Educational organizations must compete for a finite pool of clients and resources, including human, social and material resources. In any given region, the informals compete against each other and with other sectors for audience, government funding, and access to foundation funding and private philanthropy. While the formal system has a relatively secure client and resource base, challenges to the hegemony of public schooling systems such as charter schools and vouchers have threatened this security in recent years (Hess et al. 2001; Levin and Belfield 2003). Shrinking state and local budgets, coupled with increased calls for accountability for math and literacy learning, have also motivated schools to seek external funding to support all but the most essential functions. It is increasingly the case that formals and informals seek access to the same, often shrinking, pool of regional resources.

These dynamics highlight the central resource dependency theory argument: organizations must engage in exchanges with other organizations in order to survive and gain competitive advantage (Pfeffer 1997; Pfeffer and Salancik 1978). The need to acquire resources and manage environmental uncertainty is, therefore, a major driver for alliance formation (Sharfman et al. 1991). As such, the resources and dynamics at play in a regional educational ecology influence the nature of cross-sector collaboration. Resource dependency theory also suggests that organizational survival is a motivating force for collaboration, and so we considered the health of the informal organizations after collaborating with the formal system in our cases as an outcome of interest.

The regional organizational ecology and its cross-sector collaborations are also embedded in *broader institutional contexts*. Institutional theory explains how organizations are embedded in fields comprised of organizations engaged in related activity and that field-level dynamics shape organizational behavior (Burch 2007; Meyer and Rowan 1977; Rowan and Miskel 1999). Organizational fields are comprised of a network of key suppliers, consumers, regulatory agencies, and organizations that produce similar services or products (DiMaggio and Powell 1983). The concept of the organizational field highlights how networks of relations among organizations may exist not only as actual behavioral connections (e.g., such as resource dependencies), but also through the development of shared cultural models which specify the appropriateness of actions and provide meaning systems that guide interpretation (Scott and Meyer 1991; Russell 2011). The actions of government and organized professions exert pressure on organizations to comply with institutional rules or practices in order to achieve legitimacy (DiMaggio and Powell 1983; Meyer et al. 1981; Sharfman et al. 1991). As Phillips et al. (2000, p. 29) note: "The rules and resources associated with institutional fields provide the context within which collaboration occurs. The participants in a collaborative process bring with them various institutional affiliations and the institutionalized rules and resources that this implies."

Research at the organizational field level has rarely examined the diverse set of informal educational organizations such as museums and CBOs that contribute to the education of school-aged children and youth. Drawing on the concept of the organizational field, we would expect that direct connections between informal

educational organizations and the formal system would have mutual influences on practices. In addition, the notion of the field emphasizes indirect influences such as the reshaping of education goals and priorities driven by public preferences and policies. Institutional theory predicts that when informals become part of the same field as the formal education system, they become increasingly subject to the formal systems' norms, classificatory structures and policies. For example, the No Child Left Behind Act's emphasis on academic standards and assessments threatens the legitimacy of arts education in the K-12 curriculum (Bodilly et al. 2008). This dynamic has created a central role in the field for informals to the fill the gap as priorities in the K-12 system have shifted.

In the analysis that follows, we trace the trajectory of two cases of collaboration across the formal-informal boundary from the initial motivations to collaborate, to the processes and outcomes of collaboration. Within each of these three phases, we note how collaboration was constrained and enabled by the larger backdrops of the regional educational ecology and the broader institutional context.

Methodology

Given the lack of prior research and limited theoretical development regarding collaborations between formal and informal educational organizations, we used qualitative cases to describe the nature of our phenomenon of interest–cross-sector collaboration–and to contribute to theory (Eisenhardt 1989; Miles and Huberman 1994). Employing a comparative case study approach (Yin 1994), this study examines two instances of cross-sector partnership. These cases were selected because they afforded a high level of access drawing on a history of research partnership between the second and third authors and the informal education organizations. While these cases cannot be viewed as representative of other cross-sector collaborations, they contribute to our theory building aims.

The Children's Art Museum (CAM) case focused on collaborative work with an urban school district to create two preschool classrooms in a museum.[1] This partnership was envisioned as a model program using museum resources as part of the curriculum, but after several years of operation the partnership was still working to achieve joint programming. The second case examined Community Arts Organization (CAO), which contracts with the same school district to provide after school studio arts programs, and increasingly to support arts integration during the school day. CAO grappled with issues of how to maintain its arts-based culture and youth development philosophy in light of its increasingly dependent relationship with the formal system.

Our cases involve partnerships with the same urban school district, located in a small city in the Northeastern region of the United States. Over 70 % of students in the district qualified for free or reduced priced lunch, nearly 60 % of students were Black and just under 40 % were White. During the time of our study, the district faced policy pressure to improve student achievement, particularly the achievement

[1] All organization names are pseudonyms.

of students of color and those growing up in poverty. In addition, the district struggled to retain students due in part to competitive pressure from suburban school districts, private and charter schools.

The study explores the following research questions: (1) What is the nature of the connections between formals and informals? What factors support joint work and sustainability? What are the barriers to robust collaboration? (2) How does the regional organizational ecology and broader institutional context shape formal-informal collaboration?

We drew on an existing data set from prior work with the two informal organizations including field notes from observations of planning meetings and informal interviews that occurred over a multi-year time period. We supplemented this data by collecting documents relevant to the partnership (e.g., annual reports, school board minutes and newspaper articles) and conducting an additional seven interviews with lead actors involved in the partnership including representatives from CAM (N = 2), CAO (N = 1) and the school district (N = 4). Interviews were semi-structured following a protocol that asked participants to describe the origins of the partnership, the nature of their joint work, their perceptions of partnership effectiveness, and the conditions that support or hinder their collaborative work. We identified respondents through a snowball sampling method, allowing key organizational members to nominate those with whom they perceived to be most essential to the partnership. All interviews were audio-taped and transcribed.

Our conceptual framework guided qualitative analysis of emergent themes within and across cases (Miles and Huberman 1994). Following Wood and Gray (1991), we wrote descriptive accounts of each case identifying precursors to collaboration, the collaboration process, and evidence of outcomes. We then engaged in cross-case analysis examining the ways that context–including both the regional ecology and the institutional environment–shaped motivations to collaborate, the collaboration process and participants' perceptions of partnership outcomes.

Case study partnerships

Drawing on our conceptual framework, we describe both formal-informal partnerships in three phases: the precursor and motivations for collaborating, the collaboration process and participants' perceptions of program outcomes.

Preschool classes in the Children's Art Museum

The Children's Art Museum (CAM) is a 25-year-old mid-sized museum that underwent an expansion in the years 2000–2004. As part of their expansion project, the museum wanted to create a Town Square Model, a place that would house family-oriented resources and organizations. The expansion was highly successful and recognized by its peers as a national model for partnerships. Some of the partners included advocacy groups, a radio program, and a research group. The case to be discussed here is a partnership with the City Public Schools that created a preschool inside the museum.

The museum wanted to develop a school program on-site as part of their expansion vision. Finances curtailed their early plans to develop a whole school, but late in the expansion an opportunity arose to partner with the City Public Schools to develop two preschool classrooms. District leaders were motivated by the need for space to house a rapid expansion of preschool classrooms enabled by the availability of new state funding for early childhood education, but also inspired by the synergistic programmatic possibilities provided by the museum setting. CAM leaders were motivated to partner with the district because they hoped that innovative early childhood education programming could be developed that utilized the unique museum resources, particularly around art and inquiry.

Having somewhat aligned operational objectives drove the partnership, but the fruition of the partnership was sparked by a personal relationship between the Museum's executive director and the District's director of early childhood education (ECE). The director of ECE noted: "A lot of it's [the partnership] about relationship. I think in general. Because I mean the CAM director and I just knew and liked each other." Similarly, CAM's director of education noted: "So it was really a strong—I want to think a lot of things are—a strong personal commitment between two people or between three people, you know, that drive it through."

The formation of the partnership was facilitated by the sense that leaders in each organization had a common vision. For example, the District's director of early childhood education (ECE) noted, "I always respected CAM from way back because of their understanding of how children learn hands-on and you know kind of really developmentally appropriate." Partners reported having similar visions for the preschool classrooms from the outset. The District's director of ECE noted: We were all just really passionate about this idea…that the children could use the entire museum as their classroom." And in an article for the National Association for the Education of Young Children (NAEYC) newsletter, the District's director of ECE noted: "Based on the museum's philosophy–Play with Real Stuff–the children explore the museum's hands-on activities and exhibits throughout the day." CAM's executive director noted: "We're hoping that we have some kind of influence on them [the preschool teachers] too. That they think differently about how they teach kids and how they let kids experiment."

While partners were aligned on many goals for the partnership and a broad approach to early childhood education, once operationalized, partners realized they had some fundamental philosophical differences over issues such as the design and set up of the preschool classrooms. CAM's education director explained one occasion that threw these differences into sharp relief:

> We were all appalled when they [the teachers] first moved in and saw their approach to classrooms and how they set up their classrooms. The classrooms were straight out of a teacher supply store: every surface was covered, and I mean that is often the traditional teacher's way. Rather than let things evolve, and you know, showcase kids' work, and sort of reflect the kind of very special place you're in, they were super-imposing a school environment as they saw it in a place that was not a school.

CAM had been intentionally moving the design of the museum away from this kind of traditional school-based aesthetic, towards what they saw as a more sophisticated aesthetic that drew from Reggio Emilia principles.[2]

The partnership has also required flexibility and collaborative problem solving to overcome logistical challenges such as opening the Museum early to fit the school schedule and accommodating parents that want to stay in the museum after school. At the time of our study, the partners were struggling to find a way to create a dedicated outdoor play space for the preschool classrooms. In accordance with their mission, CAM adhered to principles of green design, making the cost of equipment more expensive. The District would not allocate the necessary funding for equipment that was not on their property. The District's ECE director described the resulting stalemate: "We're good partners with each other so we're not mad at each other. It's just that we can't seem to work that out…Sometimes we couldn't get through our own systems or larger system as a whole."

Despite some challenges, both partners felt that the partnership was successful because it was stable, sustainable, and popular with parents. The District's ECE director noted: "It's a wonderful place for the kids and people are clamoring to get in; we have to do a lottery every year for those classrooms." And programmatically, the District's ECE director also described how the classrooms at CAM had influenced preschool practices district-wide:

> We looked at the Museum as one of the models that we could look at things that were in CAM and then export them out to our other classrooms. So it really influenced all our classrooms even though they wouldn't have the advantage of having a whole museum as their classroom. They would have some of the things that we learned about children working with these materials.

For CAM, the classrooms supported the museum's mission by providing an opportunity for students and their families to experience the museum on a daily and ongoing basis. The program was also a popular program to showcase in marketing materials and to funders.

However, CAM and, to a lesser extent, the District have been somewhat disappointed about the level of programmatic integration achieved to date. The standardized curriculum specified by the district in accordance with state preschool and federal Head Start standards, made it difficult to create classrooms that deviate from the norm. The District's broader educational philosophy emphasized equitable opportunities to learn through implementation of a standardized managed curriculum. CAM's education director commented saying, "We wished for a lot more [collaboration]. We really thought that we could take the experiences that could happen here on a regular basis and would transfer it back to the classroom. And so there would be a greater extension in support of what they were doing with what's

[2] Reggio Emilia is an educational approach that draws upon the work of Dewey and Vygotsky, and values the role of parents, teachers and other children in the co-construction of knowledge and the acceptance of the child as full of potential (Edwards et al. 1993). This approach has a strong focus on the "expressive arts," and pays great attention to the design of classroom spaces and materials in order to provide an environment respectful to teachers and students and conducive to creative collaborative work.

there [in the museum]. But it hasn't happened." She went on to explain the challenges: "It's not to say that it's the teachers' fault, I mean they just have so much coming at them. They don't have the freedom to decide their day. I mean when you have that uniform curriculum, then you have that curriculum demand that you all be together." One of the preschool teachers explained, "I think they [CAM leaders], at the beginning they really wanted to be more a part of it [shaping the curriculum], and they didn't realize how much educational structure there was going to be. But it's more limited because we have to do so many minutes of this, and so many minutes of that a day. And we have to follow the curriculum and get that done, so we are limited."

The Museum's identity as a "cultural institution" may have also been a barrier to robust collaboration and programmatic integration. The CAM executive director explained their orientation toward the schools:

> We're not an educational institution, we're a cultural institution. As soon as you define yourself as a cultural institution, you can make yourself available to the formals and you say, 'Here, we are open to you. And we will help you figure out how we fit into your curriculum, but we're not going to develop our exhibits based on your curriculum.' Because it doesn't work. Because we're not an educational institution. We know who we are pretty well and we have our point of view and it's nice to talk about different points of view, but we're not going to do wild gymnastics to fit into a curriculum. It doesn't work! Then you lose who you are.

Similarly, CAM's director of education noted:

> I will say that we cannot teach to the standards. We can support their [schools] work towards the standards, so in our programs what we've tried to do is acknowledge the standard that maybe that experience supports. So we're pretty upfront about that. I think most museum educators say that–there may be some that are teaching much more specifically and I've been in touch with some of them, but I just have not accepted that viewpoint. You know we decided we're not a school, we can't be a school. We're something else.

At the same time, the director of education acknowledged pressure from the formal system: "So I think museums have tried to offer alternatives and to see how exciting it is to learn with real objects and real things and real processes, and we each do it in our own kinds of ways, but it's an increasingly difficult thing to do." As a result, the museum positioned itself as a helpful resource to teachers with programming designed to help them create classroom experiences that facilitate play and discovery learning, while staying focused on its core mission as a cultural institution. This may be an advantage in that CAM has been able to maintain its identity as an arts-based, child-focused institution precisely because they can pull back from the mandates of formal education when those mandates are not consistent with its core museum mission. We will demonstrate in the next case that the Community Arts Organization became increasingly dependent on the formal system, in part, because it lacked such an independent identity.

Arts integration at Community Arts Organization

The Community Arts Organization (CAO) shares characteristics with CAM in that it is a mid-sized organization with an arts-based mission in the same city. Roughly forty years old, it is a community organization that employs the visual and performing arts, "to foster a sense of accomplishment and hope in the urban community." Its mission is to "educate and inspire" urban youth through the arts and mentorship. CAO is a multi-faceted organization that provides different kinds of educational services for its urban neighborhood, but an afterschool arts program (ceramics, photography, digital arts, and design) has always been the core of its youth programming. While long supporting local students in afterschool exploration of the arts, more recently, CAO engaged in a range of school-based projects with City Public Schools. These partnerships ranged from a project where CAO "teaching artists" worked with teachers and students in middle and high schools on short-term art projects, to work on curriculum and instruction for a school-wide arts integration initiative.

CAO's work with the schools began with the development of an annual contract with the district to provide its afterschool arts services to students: the district paid CAO for providing these services and provided transportation for students from schools to the CAO facility. CAO did not charge students for participation in its programs, nor did it charge educators from the district to participate in its professional development programs. Engagement with the district provided a stable pool of students to populate CAO's afterschool programs, and an ongoing source of funding for its youth programs. CAO's school-based programs have been used to generate additional local foundation funding and several federal Department of Education grants. At the time of our study, funding lines for these school-based programs accounted for about one-fifth of CAO's operating budget each year. While these funding streams and related programming represented an important part of CAO's operating budget and staff activity, the programs were threatened by fiscal austerity measures and policy pressures that encourage out-of-school time providers to focus on academic learning (specifically in mathematics and reading) in order to support the formal system's accountability for student learning gains.

Concerned about declining enrollment in afterschool programs, CAO sent teaching artists into schools to recruit students to attend afterschool programs at CAO. Like the CAM partnership, the evolution of these new initiatives around school-day programming benefitted greatly from personal relationships, in this case between a CAO staff member and a teacher at a local high school. Over time, the collaboration expanded and become formalized as CAO and district leaders forged plans for teaching artists to work with teachers at several schools to plan curriculum that integrated arts education into core curricular courses. Foundation funding was obtained to develop new curriculum. From the start, these efforts were challenging due to a conflict over vision, and ultimately the perceived mission and role of CAO held by its staff. CAO's then education director noted the difficulty CAO faced in articulating the role of their expertise in arts education and youth development within the context of formal schooling, students' academic achievement and classroom management:

> There was some internal conflict within CAO and also manifesting itself with internal conflict on the formal side. And I would say that as we took our program into the more mainstream population [beyond self selected participants in the afterschool studio arts program], it is the same kind of conflict I think is continuing to go on in a lot of urban schools which is, are the challenges in the urban high school going to be addressed through what we [CAO] teach and how we teach it?

As CAO became increasingly involved in school day programming, staff found themselves in unfamiliar roles. Staff primarily identify as artists and felt overwhelmed and unsatisfied when asked to write formal lesson plans and plan curriculum for core academic subjects. They also faced some hostility from teachers who felt threatened by having CAO staff in their schools and classrooms. For example, one staff member described the challenges associated with school-based work:

> The staff morale issues that come into play. You know some people's work weeks look really different than others. This seems to be because of the high degree of documentation involved in this kind of work and the high degree of collaboration and the fact that the staff has to integrate themselves into an external community. You don't feel the love when you walk into the door, the way you do at CAO. You are much more, the things you would typically hear from the school-based arts teachers you know, 'I feel alone, I feel isolated, I feel undervalued. To some extent I feel like an interloper. The teachers are hostile towards me because they feel I pushed out student teachers.' You know, a lot of misunderstanding. And if you are the person that is walking in the door every day, you get hit with a lot of that.

This respondent contrasted the experience of school-based CAO staff with the experience of staff in after school programs, saying:

> And then I think that most of our staff also still sees the [afterschool] program as the place where they really get to shine. They get to determine what the artistic problem is, they get to create the curriculum, they get to organize their colleagues around them to support them, they get to work with a slightly older student who is coming there because they choose to come there. You know there are a lot of circumstances around that. So yeah, it has created those kind of stresses.

Overall, CAO's direct service to the schools pushed staff into uncomfortable positions with fewer professional rewards.

Over time, it became difficult to sustain the school-based curricular collaborations. When a key project coordinator on the CAO side went on sabbatical, CAO struggled to maintain regular communication with teachers. There were challenges navigating the cultures of the two approaches to education and youth development, and difficulties substantiating the impacts of these programs, amidst a climate of outcomes-based accountability in the formal system. Then funding ran out to support the program. In the wake of this program's demise, the CAO formed a new partnership with a middle school, thinking it might be "better if we can be reaching out to the kids at a younger age when some of their hostility toward education and

the arts was perhaps not quite as ingrained, when some of the challenges weren't quite so manifest and kind of intractable" (VP of Operations). When the district received a federal grant for the joint program, the middle school project expanded to a partnership with four middle schools.

At the same time, CAO started to design a school-day field trip program that "was much more grounded in the CAO's facility and expertise." The teaching artists worked in collaboration with teachers to design the experience. The program involved school day class trips to the CAO facility where students engaged in studio arts programming led by CAO's teaching artists. They also worked in collaboration with teachers to design the experience. The program enabled the CAO to:

> Expose ourselves to many, many more middle school age students and teachers than previously we could have. And expose ourselves in more authentic ways then just going into the school and being an artist in the classroom because the kids come into the environment in our space.

CAO staff felt that this field trip program was more successful than their prior work in schools.

Yet, when a new potential school-based partnership with the district came up, CAO seized the opportunity. Together CAO and the District secured a nearly one million dollar federal grant to reform a K-8 school. The proposed whole school reform model focused on "learner centered arts integration." CAO planned to partner with the school to "employ the arts as a central instructional and curriculum mechanism across all subject areas and grade levels to develop active, interdisciplinary learning experiences." The curriculum used art as a tool to engage students, but another major focus of the project was on youth development issues, helping students to have a better relationship with teachers and with learning. The grant provided artists-in-schools, curriculum specialists and a program director focused on increasing student achievement.

Once started, this complex project confronted many challenges. The proposed school for the K-8 partnership, in close proximity to the CAO facility, was closed due to declining district enrollment. The district identified a new school to house the program, but it was far across town. Further, students were routed to this new school from a historically low-performing middle school, and our respondents noted that many students had an oppositional orientation toward school. A district official noted: "The first year I couldn't get into the parking lot, there were so many police cars on a daily basis." In addition, the school was under pressure to conform to the school district's standard curricular program and other reform models that were not necessarily consistent with the project's focus. Some CAO staff felt they did not truly share in decision making during the project. Reflecting on the partnership, a CAO staff member noted:

> There are a lot of things that occurred at the district level in terms of decision-making that made that project really, really difficult. More difficult than I think it was originally intended to be…it got extremely complicated. I think the fact that we actually followed through with the project despite a lot of those things, you know has a lot of good things to say about CAO's internal capacity and the buy in of the staff and the resiliency of the staff to kind of muster on and continue to make the best of the project.

Ultimately, the metric for the success of the project became whether CAO could see the project through to the end.

The increasingly complex partnership with the district was driven by the availability of external funding streams and CAO's creative maneuvering to identify and provide new programs and services for the district. In some ways, CAO's efforts to position the organization as a service provider to the district has been a drain on CAO's resources, a threat to its mission, and has increased its exposure to funding volatility. At the time of our study, CAO was under a significant number of market pressures. First, they recognized the vulnerability created by focusing primarily on one school district and planned to explore the possibility of partnering with other districts. Over the past several decades, the contract with the district declined from being the vast majority of their youth arts operating budget to approximately 13 %, despite offering expanded services, and thus it became heavily dependent on other short-term foundation and grant funding. Second, the rapidly growing market for out-of-school time providers has meant that CAO faced additional competitive pressure from a number of other informal organizations providing school day and non-school-day arts-related services for youth in the region.

Finally, funders and key stakeholders have increasingly emphasized the importance of producing measurable student outcomes. As a result, CAO engaged in a resource intensive effort to develop a formal evaluation protocol and student tracking system to measure the outcomes of each CAO program. This system was designed to operate organization wide, including multiple adult, youth, formal and informal programs. Finding an effective design to meet all of these needs has proven to be difficult and the system has yet to be implemented after nearly 5 years of effort.

CAO is very attentive to and thus exposed to, the policy and organizational issues of schools. Through a series of entrepreneurial moves over the last 15 years, the CAO experimented with different ways of providing direct support to schools. Sometimes these opportunities were core to the CAO's original mission (such as securing district and state money for afterschool arts projects). But sometimes the projects pulled the CAO into new and uncomfortable ground, such as developing and teaching public school curriculum through artists-as-teachers programs.

In the CAM partnership with City Public Schools, CAM was able to retain its core mission and identity as a cultural institution. In contrast, CAO lacked a standard, recognizable organizational form such as a museum. As a result, CAO had to secure legitimacy and resources by fluidly responding to the needs of the formal system and secure their niche in the regional educational ecology. But that same ability to move quickly has sometimes left the staff feeling as if they are drifting in ways that radically change or even undermine their core arts-based mission.

Discussion

Understanding the trajectory of organizational collaboration requires looking beyond internal dynamics to include the context within which collaboration emerged (Sharfman et al. 1991). Our focal cases reveal that the regional ecology

and broader institutional contexts shaped the nature of collaboration between formals and informals. In this discussion, we return to our conceptual framework and demonstrate the role of organizational and institutional context in the three phases of collaboration: motivation, the collaboration process and outcomes. In so doing, we show how significant differences between the two cases, particularly with respect to context, shed potential insight into why the CAM partnership resulted in less risk to CAM than was evident in the CAO partnership.

Motivation for collaboration

The original genesis for each formal-informal partnership we studied was a prior social or professional relationship. Leads from each set of partnering organizations forged the idea to collaborate based on a perception of mutual interest. In the case of CAM, it was a shared vision of early childhood education that emphasized child-centered, hands-on learning environments. In the CAO case it was complementary interests: CAO's emphasis on art as a vehicle for youth development and the district lead's belief that art was a vehicle to support student motivation and academic achievement. Prior relationships did not appear in our conceptual framework as a dimension of motivation for collaboration, though this factor is consistent with the way prior work has discussed the importance of norms of reciprocity and trust in the collaboration process (Thompson et al. 2007, 2008). Our work suggests that the relational component of collaboration is important from the outset.

Our work is consistent with prior collaboration research that emphasizes that organizations are motivated to collaborate in order to secure valued resources (Chen and Graddy 1991; Gray 1989; Gray and Wood 1991; Thomson and Perry 2006). This work has tended to see collaboration as an exchange relationship between two or more partners. Our work extends prior research to show how funding opportunities in the regional ecology and broader institutional context facilitated formal-informal collaboration: state funding for early childhood education and local foundation and federal funding for arts integration. In other words, collaboration enabled pairs of partners to access resources from third parties such as foundations and government.

Collaborating with CAM satisfied the school district's need for a physical space to open more preschool classrooms and thus take advantage of state funding for the expansion of early childhood education. For CAM, the partnership presented a vehicle to pursue their vision of the museum becoming a regional hub for family resources. Although CAM received some revenue through space rental fees, the primary motivation was increasing the range and scope of services provided to families in the region. This was likely due to the fact that CAM had stable sources of funding for its core operations. However, in the CAO case, partnering with the District was principally aimed at garnering and sustaining much needed fiscal resources. Like CAM, the resources to support CAO's arts integration work with the district came from third parties in the regional ecology (local foundations) and the broader institutional context (the federal government). CAO also sought to manage uncertainty related to recruiting students to participate in their afterschool programs,

funded by the district, by forging a direct connection to students through their school-based work.

Yet the role of institutional context in motivating collaboration goes beyond direct opportunities to garner material resources. For example, CAM leaders were also motivated to partner with the district because housing the classrooms was a way for CAM to signal its innovativeness, which potentially enhances their capacity to secure funding from foundations and donors. CAM's identity as a leader in the museum field was bolstered by their decision to partner with the district and house the preschool classrooms. This finding is consistent with institutional theory's emphasis on legitimacy as a valued organizational resource (Meyer and Rowan 1977; Ogawa 1994). Schools, and in this case informals such as museums, adopt programs and practices in an effort to appear institutionally legitimate.

Collaboration process

Once off the ground, both of our case partnerships struggled as they tried to realize their joint mission. While the social capital dimensions of collaboration such as norms of trust and mutuality enabled some degree of collaboration, constraints related to partnership governance and the institutional context prevented either partnership from achieving robust joint work.

Consistent with our conceptual framework (Ostrom 1990; Pasquero 1991; Thompson et al. 2007), governance–or how decisions are made–proved to be an important condition in shaping the collaboration process. The focal collaborations were characterized by unequal power dynamics among partners. The size and complexity of the district as an organization, generated constraints that meant its interests often dominated decision-making. The District and its informal partners failed to create the structures and processes noted in the literature as necessary to facilitate joint resolution of the problems that arose in the context of joint work (Ostrom 1990). But other actors in the broader institutional context such as third-party funders also determined programmatic decisions.

The CAM preschool partnership was facilitated by a shared commitment to developmentally appropriate learning environments for young children. Shared beliefs, state funding and the availability of space in the museum enabled the opening of the new classrooms. Yet once in operation, partners had trouble collaborating on the design of the physical space and educational programming. For example, when confronted with the need to make decisions about the design and funding of an outdoor play space for the classrooms, CAM found the district unwilling to modify district policies that prevented resolution of the issue. More fundamentally, the institutional context, including federal Head Start policy and normative expectations for early academics, specified the curriculum to such an extent that CAM had little influence over the nature of educational programming despite having the classrooms housed within its walls. In this way, power is best understood as "systemic": it resides in the system's promotion of the values, traditions, cultures and structures of a given institution (Hardy 1994; Phillips et al. 2000).

CAO confronted similar constraints from the institutional environment when trying to collaborate with the District. Pressure to raise student achievement on state tests and the district's response to this policy environment (centralized specification of curriculum and instruction) left little room for the integration of the art expertise brought by CAO staff. As a result, collaboration meant finding ways to use art as a vehicle to support the formal academic curriculum. In addition, the District made critical decisions without consulting CAO, such as changing the location of the partnership school, which made it more difficult for CAO staff to work with the school. Consistent with prior studies on collaboration (Bardach 1998; Thompson et al. 2007; Wood and Gray 1991), issues of organizational autonomy emerged as the formal sector advanced its interests, without consideration for CAO's interests. In both cases, the formal system retained considerable power over partnership governance, thereby ensuring the formal system's agenda had primacy in the collaborative work. CAM resolved this tension by maintaining their identity as a museum, while CAO continually tried to bend to meet the needs of the District.

In both cases, the school district and other powerful actors in the ecology had the upper hand in decision making around key program elements. These unequal power dynamics shaped the trajectory of joint work. These cases reveal how a regional educational ecology is structured by institutional pressures such as state and federal education policy, which has an agenda, in this case the focus on developing students' core academic subject achievement. Our analysis reveals that when informal get pulled into the formal system through partnership work, they can become increasingly subject to the formal system's institutional pressures, particularly if they lack an independent institutionally legitimate identity.

One might wonder why the informal partners seemed to be surprised about difficulties they encountered when partnering with the district. While they were likely aware of the many constraints at play at the district level, the informal partners still seemed surprised at the pervasiveness of these constraints. Some of the mismatch between expectations and realities of contextual constraints resulted from the fact that the collaborators were situated within complex, multi-layered organizations. Specifically, organizational leaders forged agreements around a general vision for the partnership, while program staff had to execute the programs. As a result, program staff found themselves having to operate outside of their comfort zone and within constraints imposed by the organization and its broader environment. Ideas that seemed possible, or good in theory, encountered logistical issues that existed in the core work of the organizations, and immovable constraints were discovered as the project moved forward.

Outcomes

Finally, our work raises questions about how we should think about the outcomes of collaborative work between formals and informals. If sustainability is considered a potential goal of collaboration, then CAM, but particularly CAO, fare well in this respect. The CAM preschool partnership was popular with parents and was likely to persist as long as state funding permitted. CAO had managed to sustain

collaborative work with the district for over 30 years, although the more intense collaborations were a more recent phenomenon.

However, if we look deeper than the longevity of a partnership to examine the nature of joint work as our outcome of interest, then both partnerships look less successful. Examining the depth of joint work achieved is warranted given that one reason formal-informal collaboration are promoted is for its potential to bring the affordances of informal learning environments to formal settings (Ramey-Gassert 1994; Hofstein and Rosenfeld 1996; Inverness Research Associates 1996; Phillips et al. 2007).

These cases suggest that is difficult to achieve this integration. Both of our cases achieved limited programmatic integration, due in part to the deeply institutionalized nature of formal schooling (Tyack and Cuban 1997). Despite being housed within a museum, the practices in the CAM preschool classrooms were, to a great extent, dictated by rules and regulations of the formal system and its institutional environment. In the CAO case, the arts integration program became focused on art in service of core academic instruction, again due to institutional pressures that have defined the goals of formal schooling in terms of student performance on academic achievement tests. We suspect that this dynamic is particularly present when the learning targets sought by joint work between formals and informals includes core academic subjects. This is consistent with prior theory that suggests that the institutional environment influences educational practice differently depending on the disciplinary content (Spillane and Burch 2006). While the informal partners in our two cases brought their expertise in art, early childhood education, and youth development to the formal sector, what resulted was a focus on art in service of a narrow conception of core academics.

In addition to their ability to achieve integrated joint work, we also examined the extent to which collaboration contributed to the overall health of the informal partners. We highlight the informal partners given that this focus is one of our primary contributions to the extant literature. Collaboration with the District provided a mechanism for both informal organizations to manage the uncertainty presented by their local resource environment. Partnering with the district made CAM appear innovative which supports marketing to the community and funders. At one point in time, the partnership enabled CAO to draw in additional resources for its longstanding work with the District and also had the potential to connect staff with a wider network of students to support recruitment efforts to populate its afterschool programs. In these ways, consistent with resource dependency theory (Pfeffer and Salancik 1978), collaboration with the formal system had the potential to strengthen each informal's organizational mission and position within a regional ecology.

Yet collaboration also introduced new dependencies, particularly in the CAO case, that put stress on organizational operations and resources. CAO staff took on new roles defined by the needs of the formal system (e.g., curriculum writing) that pulled them away from their core expertise as professional artists. Staff also encountered complex social dynamics within schools: likely due to lack of initial trust among participants, teachers questioned the motives of CAO staff seeing them as a threat to their jobs and blaming them for taking the place of student teachers.

And the initial, relatively secure funding source for the joint work–school board approved contracts from the District's general operating budget–was replaced over time by short-term grant funding that presented new and ever more complex organizational demands for CAO (e.g., collaborating on the operation of a school). These shifts over time in the funding relationship with the district left CAO at greater risk for not surviving, because its ability to garner resources depended on securing short-term grants.

In contrast, CAM benefitted from its partnership with the District, despite disappointment that they had limited influence over the nature of educational programming in the preschool classrooms. In many ways, the preschool classrooms operated as a silo, loosely coupled with the broader organization, and in this way, they created few demands and presented little risk to CAM. This is consistent with prior scholarship that suggests that loose coupling of organizational units has advantages such as minimizing the risk of introducing new practices (Weick 1976). This situation stands in sharp contrast to CAO where program administration was more tightly coupled with the District, and tighter coupling introduced risk. Joint administration of the arts integration school increasingly pushed CAO staff into roles outside of their expertise, straining the commitment of CAO staff, and stretching organizational resources to the breaking point.

Consistent with institutional theory (DiMaggio and Powell 1983; Meyer and Rowan 1977), the role of the institutional environment provides some insight into why collaboration with the District put CAO at greater risk than CAM. As a museum, CAM was a recognized organizational form in its institutional environment. Its legitimacy was not dependent on the success of the partnership but rather its successful manifestation of a cultural institution. While interaction with the formal system exposed them to the pressures of K-12 regulation, CAM was able to take a stand that buffered these pressures from influencing their core operations. In contrast, CAO was a flexible organizational form with less direct sources of institutional support, heightening their vulnerability to pressures from the formal system. As CAM because increasingly interdependent with the District, staff found themselves in positions that felt at odds with their core mission and identity.

Implications

Our work highlights the value of taking the organizational ecology as the unit of analysis when studying informal educational organizations and their partnerships with the formal system in the United States. By focusing on formal-informal partnerships, this study took an initial step toward specifying the organizational dynamics at play in a regional educational ecology. We contribute to the literature by focusing on the perspective of informal organizations, which have been understudied in their relationship to the formal system. Our work also demonstrates the utility of organizational theories such as institutional and resource dependency theories in understanding the precursors, processes and outcomes of formal-informal collaboration. In future work, we aim to take the ecology as the unit of analysis and map the connections among educational organizations in a region and

explore how these interaction shapes the availability of educational opportunities, while also attending to resources dependencies and broader institutional contexts.

Our work also has implications for conceptualizing and potentially structuring collaboration. Our comparative case study points to the need for organizations to collaborate across the formal-informal boundary in ways that strengthen rather than weaken the educational ecology. Strengthening the ecology clearly implies that collaborations produce programming that serves children and youth in more effective ways than current programming. But, as we argue in this article, it is also important to consider collaboration in terms of how it impacts the individual organizations that make up the larger educational ecology. Collaboration is difficult, especially across the formal-informal divide where there is an inherent tension in goals and approaches. Sometimes this tension can be productive: Partnership is a convenient opportunity for informals to secure necessary funding and build a client base. Partnership is also a way to develop innovative new programming that combines the strengths of both formal and informal. But partnerships across the divide require significant investment in time and resources. Our findings suggest that the formal sector likely has more power in partnership governance, meaning that informals are exposed to the risk that they may get pulled in directions that can stray from their core vision and move them into areas outside their organizational expertise.

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