



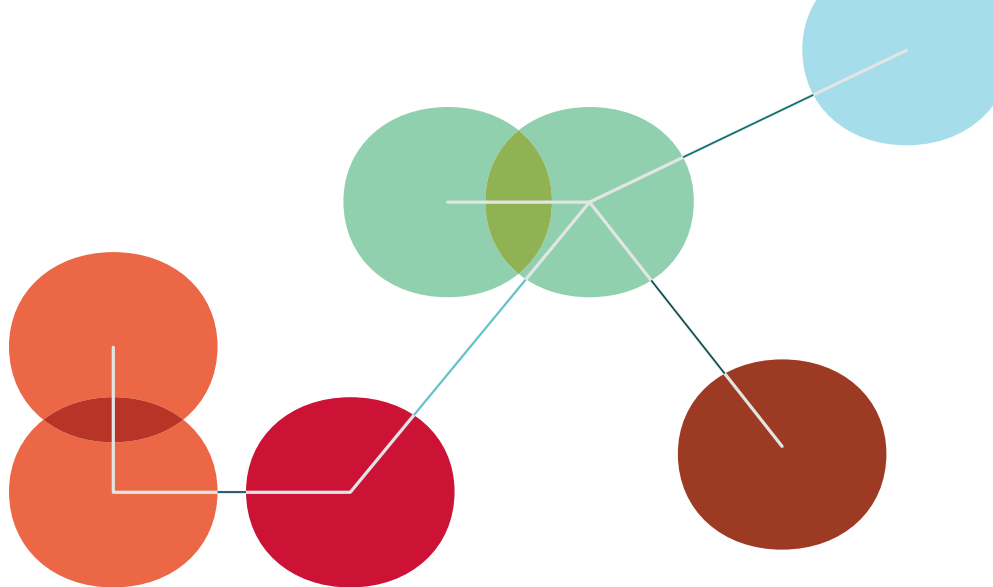
Partnerships As Infrastructure

Findings from the Learner-Centered Ecosystem Lab

Domonique Edwards, PhD

Suggested Citation: Edwards, D. A. (2026). Partnerships as infrastructure. Education Reimagined.
<https://education-reimagined.org/learner-centered-ecosystem-lab-partnerships-as-infrastructure/>

JUNE 2026



Introduction

Across the education sector, efforts to improve outcomes for young people are often centered on innovation through new programs or school models. While these approaches have generated important advances, they frequently operate within existing institutional boundaries. As a result, fragmentation across the broader system often remains unaddressed, limiting the potential for sustained, systems-level change.

In response, a different approach is taking shape. Communities across the nation are building [learner-centered ecosystems](#)—networks of schools, community-based organizations, businesses, and public agencies that collectively support young people’s learning across settings (National Research Council, 2015; OECD, 2017; Díaz-Gibson et al., 2021; Remake Learning Network, 2021; Education Reimagined, 2023). These ecosystems emphasize the dynamic interaction among learners, settings, and resources within a broader social and cultural context, with learning occurring across both institutionalized and non-institutionalized environments. In doing so, they aim to bring greater attention to how learning is coordinated across the broader system at play, rather than within isolated institutions.

Rather than replacing existing institutions, these ecosystems focus on reorganizing relationships among actors already present in the community. This approach reflects a broader body of research suggesting that access to opportunity is shaped not only by individual organizations, but also by the networks that connect them and the relationships that enable coordination across settings (Granovetter, 1973; Small, 2009). While many elements shape how the broader system operates, community partnerships play an important role in shaping how young people access learning opportunities across their communities.

Within this context, partnerships are examined as a form of connective infrastructure linking learning opportunities, supports, and experiences across institutional boundaries, helping coordinate activity across a more distributed system. In this brief, partnerships are understood as structured relationships among community actors that involve varying degrees of interaction, resource sharing, and joint activity in support of young people’s learning and development (Bryson et al., 2006; Kania & Kramer, 2011). These relationships exist along a continuum and shape how learning opportunities and supports are organized across settings.

While existing research on systems change, collective impact, and cross-sector collaboration has highlighted the importance of partnerships in education, less attention has been paid to how partnerships function structurally within broader learning ecosystems, particularly in terms of their diversity, depth, and role in shaping how responsibility for learning is distributed.

What Does Existing Research Say About Learning Ecosystems and Partnerships?

A growing body of research suggests that learning is not confined to schools but occurs across multiple settings, including homes, communities, and workplaces. Frameworks for learning ecosystems emphasize the importance of connections among these settings and the relationships that link learners to opportunities (National Research Council, 2015; OECD, 2017; Díaz-Gibson et al., 2020; Education Reimagined, 2023).

Studies of connected learning and youth development ecosystems underscore the value of learning across settings, where young people move between school, community, and real-world environments (Ito et al., 2013). Research on school-community partnerships, including community schools, further shows that coordinated relationships across organizations can improve access to services, learning opportunities, and student outcomes (Dryfoos, 2002; Maier et al., 2017).

This study explores this gap by examining partnership structures across a set of communities engaged in ecosystem-building efforts. Specifically, it analyzes patterns of partnership diversity and depth and how these patterns relate to the distribution of responsibility for learning across the community. In doing so, it points to a conceptual model for understanding how partnership diversity and depth may be associated with more distributed forms of responsibility for learning across communities. These findings will also inform a subsequent phase of research that will examine partnerships more directly, including the roles partners play, the mechanisms through which they collaborate, and the conditions that support or constrain their work within ecosystems.



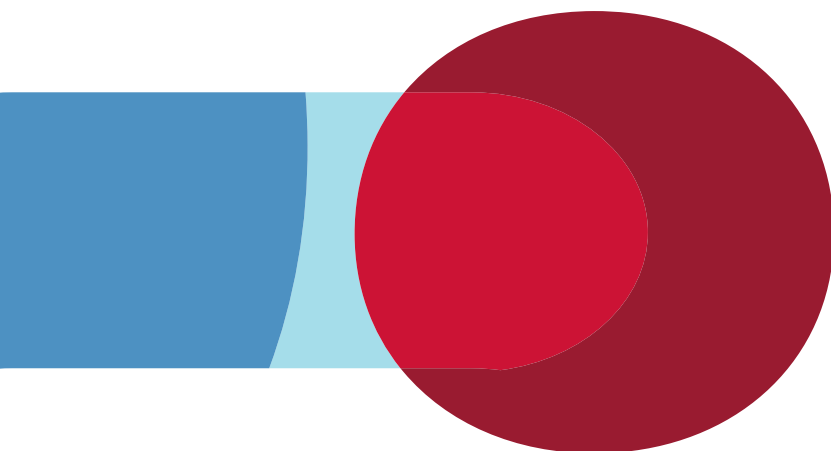
Approach

This study draws on data collected from the 2024-2025 cohort of Education Reimagined's [Learner-Centered Ecosystem Lab](#), a multi-site initiative supporting communities in building learner-centered ecosystems. Data were collected through the 2024 Learner-Centered Ecosystem Lab Survey, administered between January and March 2025. Ten of twelve participating sites (83%) completed the survey, which included structured and open-ended items addressing ecosystem components, functions, contextual conditions, infrastructure barriers, and early indicators of impact. Respondents were encouraged to collaborate across team members to provide comprehensive, site-level input. Participating sites represent diverse geographic and organizational contexts (e.g., intermediaries, school districts, out-of-school time providers, etc.) across the United States and are engaged in ecosystem-building efforts at varying entry points and stages of development.

Partnership data were collected by asking sites to report both the number of partners and their level of interaction across 18 partner types (e.g., K-12 schools, community-based organizations, businesses, public agencies). Partnership diversity was defined as the number of distinct partner types engaged, while partnership depth was measured using a five-level interaction scale (no interaction, networking, cooperation, coordination, and collaboration), reflecting increasing levels of communication, role clarity, resource sharing, and shared decision-making. Shared responsibility for learning was assessed through a survey item asking respondents to rate the extent to which responsibility for learner outcomes is distributed across community actors, using a three-point scale (not evident, moderately evident, significantly evident).

Quantitative data were analyzed using descriptive statistics (counts, frequencies, and percentages), while qualitative responses were used to contextualize and interpret patterns across sites. Preliminary findings were reviewed with Lab facilitators and community representatives as part of a collaborative sense-making process.

Given the exploratory nature of the study and the small sample size, findings should be interpreted as descriptive patterns rather than evidence of causal or generalizable relationships. At the same time, they offer insight into how partnerships are being structured and experienced within communities actively engaged in ecosystem-building efforts, and may inform others pursuing similar work, as well as those seeking to create the conditions in which such efforts can emerge.



Findings

Ecosystem Development Reweaves Community Assets, Rather Than Replacing Them

Learner-centered ecosystems are built by activating and aligning the assets already present within communities. These assets include the institutions and organizations that surround young people every day such as schools, community organizations, businesses, and public agencies. While these actors are not new, ecosystem development is reflected in how they are connected and how responsibility for learning is distributed across them.

In this context, *partnerships function as infrastructure*. They appear to create conditions for learning opportunities, supports, and experiences to extend beyond any single institution and allow communities to respond to the complexity of learners' needs in more coordinated ways. In communities with broader and deeper partnership networks, responsibility for young people's development is described as more shared across a network of actors.

This pattern is evident across the 10 communities studied. On average, sites engaged approximately 15 different partner types, ranging from 11 to 18 categories. Several partner types were present in every ecosystem, including community-based organizations (CBOs), school districts, out-of-school programs, local businesses, food agencies, higher education institutions, and cultural or recreation centers. Media and communication organizations and transportation agencies appeared in 90% of sites, while public agencies, healthcare providers, faith-based organizations, and research and evaluation partners were present in 80%.

“Community partnerships are essential to serving learners with different needs and backgrounds.”

COHORT MEMBER

“Education nonprofits and community partners help provide wraparound supports that schools alone cannot.”

COHORT MEMBER

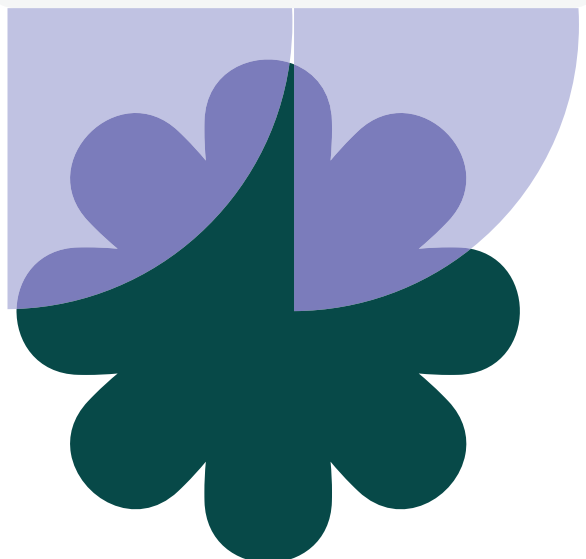
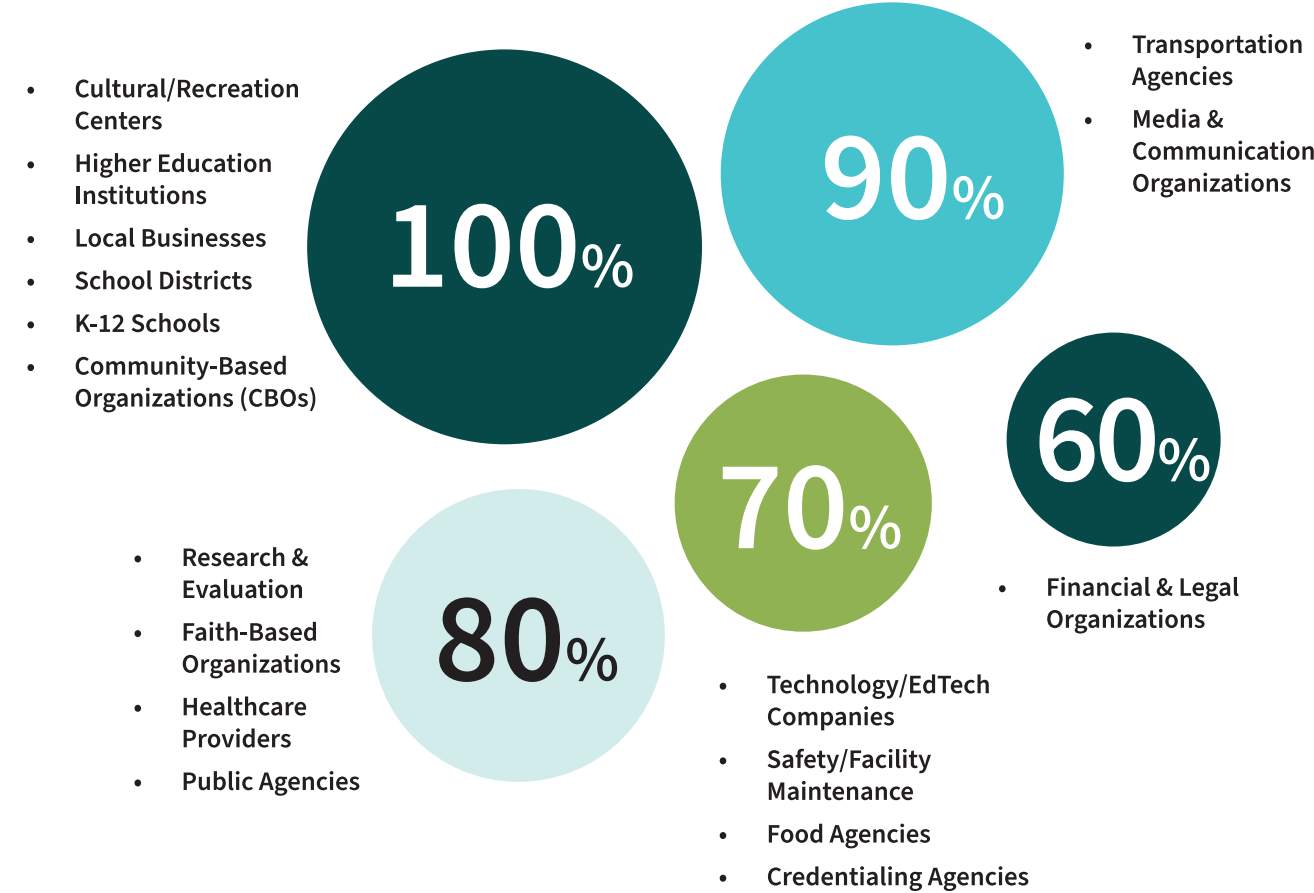


Figure 1

Percentage of Ecosystems Engaging Each Partner Type



Note. Interaction levels with partners vary widely across communities, from no interaction to deep collaboration. Notably, half of the communities report deep collaboration with CBOs and K-12 schools, while local businesses, out-of-school programs, and higher education institutions are often engaged at a coordination level, reflecting differing degrees of partnership maturity and integration.

This breadth highlights a notable pattern across the ecosystems studied: It extends beyond traditional education actors. As Figure 1 illustrates, communities are engaging a wide cross-section of institutions—including organizations not typically centered in formal education systems. Examples across sites further illustrate how these assets are currently being organized around learning.

In Liberty, Missouri, Liberty Public Schools is facilitating partnerships between the district and a range of existing community institutions, including but not limited to healthcare providers, local schools, and a diverse network of local businesses to expand learning for young people.

These business partners span a wide range of fields including attorneys, physical therapists, professional sports teams, tattoo artists, cybersecurity consultants, and more—highlighting the breadth of expertise already present within the community.

What stands out is not the addition of new institutions, but the way existing ones are being connected around shared goals for young people's development. Healthcare providers, classrooms, and workplaces are being engaged as interconnected environments where learning can take place, rather than as separate systems operating in parallel. For example, through the Collegiate Nursing Academy, learners engage directly with healthcare settings as part of their pathway into the medical field.

While businesses are among their most frequently engaged partner type, they are part of a broader cross-sector ecosystem. In this way, existing community assets are not simply participating in the ecosystem but rather woven into the learning system itself.

In Milwaukee, Wisconsin, Norris Academy engages a range of partners—including 11 different partner types—to expand learning opportunities across the community. Dedicated learning hubs are made possible through partnerships with community-based organizations, nonprofits, and local agencies. By leveraging these existing community assets, Norris is creating new entry points for learners and extending learning into environments that are already central to community life.

In Columbus, Ohio, a diverse network of community partners is working together to align youth services around shared learner-centered goals. The ecosystem includes out-of-school-time providers, community-based organizations, faith-based groups, local businesses, public agencies, and higher education institutions, each contributing in different ways. Out-of-school-time programs offer after-school and summer STEM experiences aligned to shared engagement goals, while community-based organizations support workforce development and resource coordination. Faith-based organizations contribute through program implementation and community space, and local businesses provide internships and field-based learning opportunities. Together, these longstanding community actors are being aligned to support learning across settings.

What is notable, again, is not the creation of new systems, but the way existing ones are being connected and adapted. For example, partnerships with higher education institutions are expanding access by adapting existing structures, such as admissions requirements and course pathways, to better include high school learners. Similarly, local school districts and microschools are working across organizational boundaries to coordinate learning experiences and share opportunities for students.

Taken together, these examples illustrate a consistent pattern: Ecosystem development is less about building new institutions and more about intentionally organizing relationships across the institutions and assets that already exist in communities. This raises a critical question: What roles, agreements, conditions, and policies are needed to enable these entities to work more coherently and collectively, rather than recreating conditions of isolation or competition?

Partnerships Depth Matters in Ecosystems

While partnership breadth is a defining feature of learner-centered ecosystems, ecosystems are not defined by the number of partners alone. They are shaped by how those partnerships function.

Across the communities studied, there is wide variation in the depth and formality of partnerships. Rather than signaling inconsistency, this differentiation appears to be a defining feature of ecosystem development. Interaction variation reflects the diversity of roles that partners may play within the broader system.

Ecosystem development, therefore, involves not only expanding the network of partners but intentionally calibrating how those partners are engaged.

Ecosystem structure is reflected not simply in how many partners are involved, but in how relationships are positioned to support shared goals. Rather than adopting a single partnership model, ecosystems are locally configured networks in which relationship design becomes a core element of the infrastructure.

Across the 10 communities studied, ecosystem builders described engaging partners along a spectrum—from no interaction, networking, cooperation, coordination, to collaboration (i.e., fully merged operations). This range reflects how partnerships are structured and engaged across the ecosystem, from deeply integrated to more loosely aligned.

Community-based organizations (CBOs) and K-12 schools were most commonly engaged at the level of collaboration, as were research and evaluation partners when present. School districts also tended toward collaboration, though with more variation across cooperation and coordination. In contrast, local businesses, higher education institutions, public agencies, and out-of-school programs were more frequently engaged at the level of coordination.

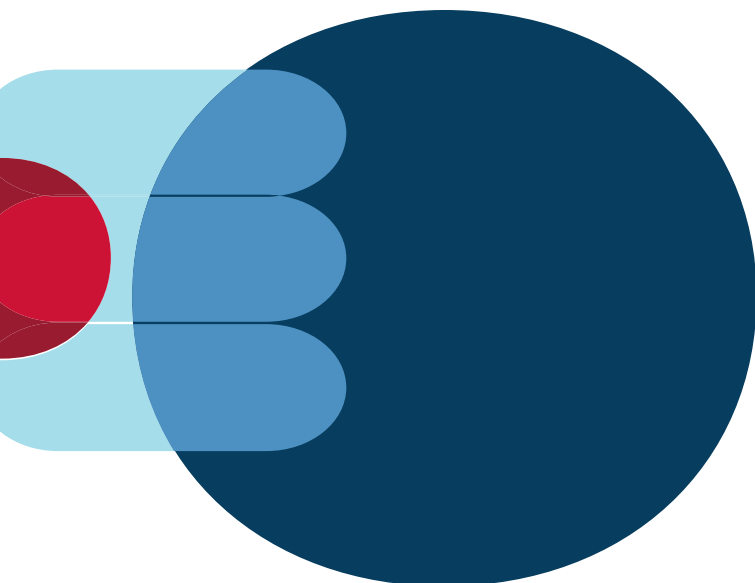


Figure 2

Percentage of Interaction Levels for Most Frequent Partner Types

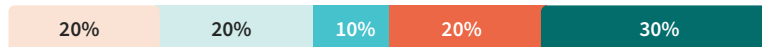
Higher Education Institutions



Local Businesses



Cultural/Recreation Centers



Community-Based Organizations (CBOs)



Out-of-School Programs



School Districts



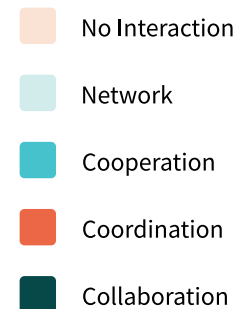
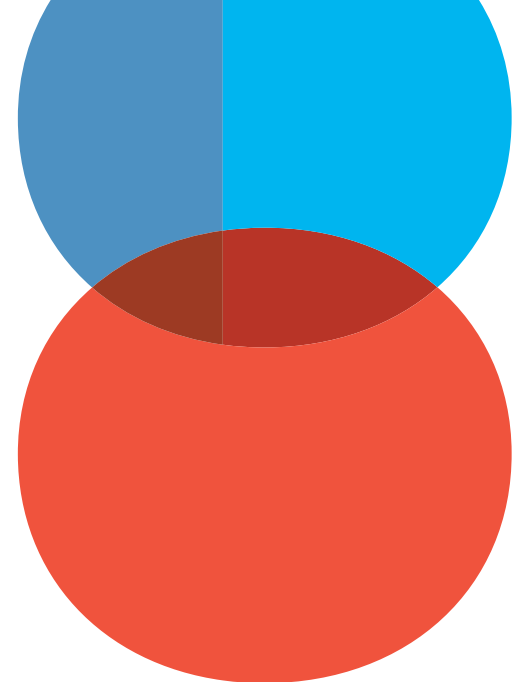
K-12 Schools



Note. Interaction depth varies across partner types, with CBOs, K-12 schools, and research partners more frequently engaged in collaborative relationships, while other partners are more commonly coordinated into ecosystem activity.

These patterns suggest that ecosystems do not develop uniform relationships across all partners. Instead, deeper collaboration appears more common among actors that sites describe as closely involved in the design, implementation, and continuous improvement of the ecosystem, while other partners are engaged in ways that expand learning opportunities without full integration into core learning functions.

For example, research and evaluation partners—present in 80% of sites—are most often engaged at the level of collaboration, indicating they are positioned as core contributors to learning design, measurement, and improvement. By contrast, partners such as businesses and public agencies—while widely present—are more often engaged through coordination, indicating they support learner experiences without being fully integrated into the ecosystem’s core structure.



In practice, this differentiation offers insights into how ecosystems operate day to day. In North Carolina, SparkNC has built a statewide network in which SparkLabs—collaborative, tech-focused learning spaces—are primarily located within K–12 schools. Within this model, partnerships operate at different levels of depth, reflecting the distinct roles each plays. SparkNC works in deep collaboration with host schools, local businesses, and research partners. Schools are closely involved in day-to-day implementation, while business partners participate through a Business Advisory Council, where they co-design learning experiences, provide tours, and support team-based internships. Research partners, including NC State, are engaged in deep collaboration to evaluate the initiative’s planning and early implementation. By contrast, district leaders, public agencies, and edtech partners play more coordinated and cooperative roles. District leaders help open and staff SparkLabs and support broader alignment across the interdistrict network, the North Carolina Department of Public Instruction helps align course credit policy, and Area9 provides the learning platform that supports student participation.

This layered approach illustrates how ecosystems do not simply expand partnerships; they differentiate them, engaging partners at varying levels of depth based on the role each plays in supporting learning.

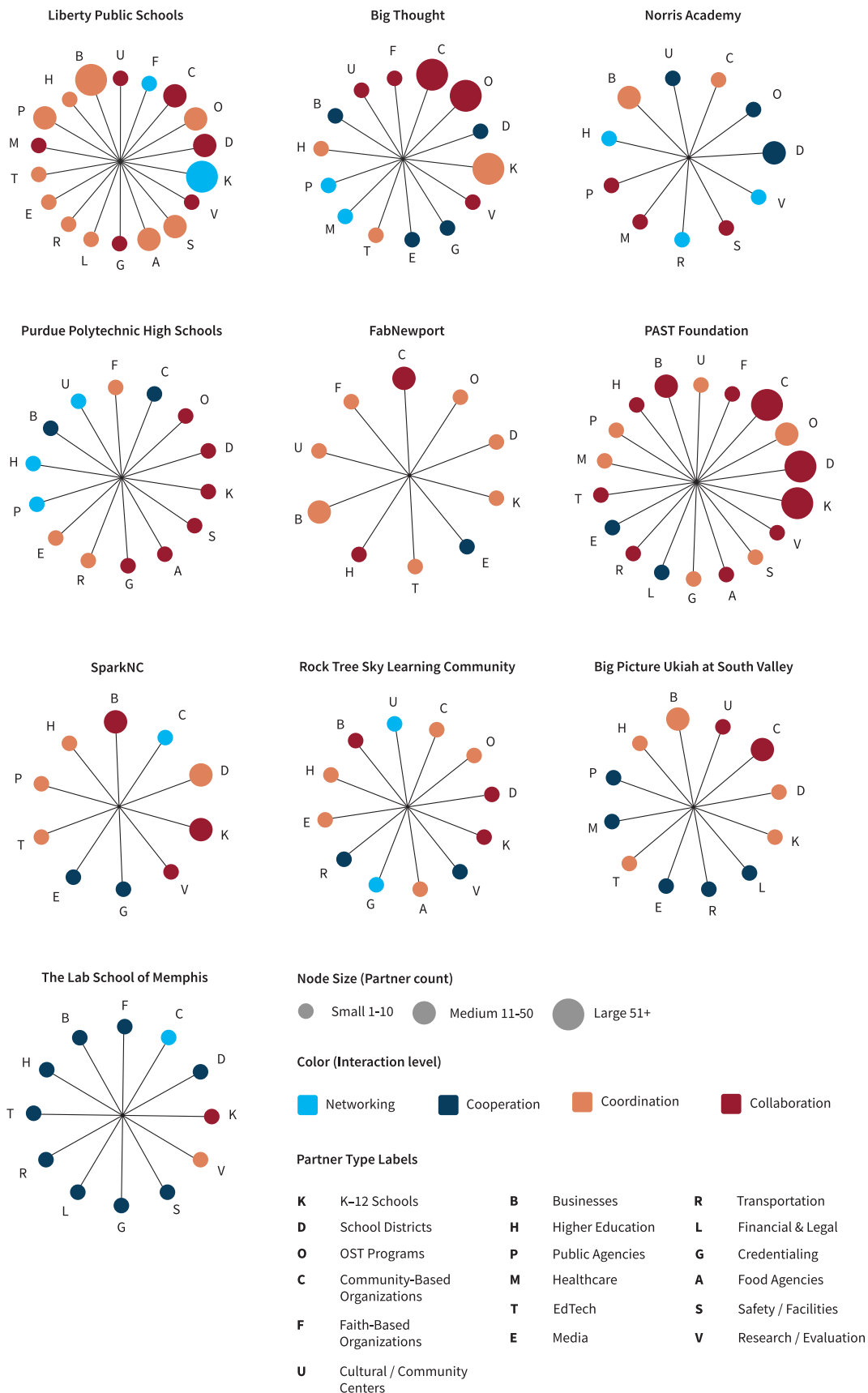
A different form of partnership design can be seen in Ukiah, California, at Big Picture South Valley where learners, staff, families, and community partners are engaged in participatory action research to investigate local wellness challenges and shape solutions. Within this model, partners are intentionally positioned to contribute in different ways: Learners help identify and explore issues, staff and educators support facilitation and learning design, and families and community partners contribute local knowledge and context.

Rather than engaging all participants in the same way, this approach structures collaboration across roles, with each group contributing distinct expertise to a shared process. In this way, partnership design extends beyond organizational participation to include how individuals are engaged within the work itself.

Taken together, these examples suggest ecosystem development may involve not only expanding partnerships, but also building the capacity to design and manage relationships at different levels of depth. This introduces a new layer of work—coordination, communication, and shared accountability across institutions—that enables them to function individually, while contributing to a more coherent system.

Figure 3

Variation in Partnership Network Diversity and Depth



Note. Partnership networks across the studied ecosystems vary in both the diversity of partner types and the depth of interaction. Each network visualization represents a single ecosystem, with nodes indicating partner categories and color variation reflecting levels of interaction. The figure illustrates that ecosystems are not uniform in structure; rather, they organize partnerships differently, with some demonstrating broader networks, others deeper collaboration, and many reflecting a combination of both.

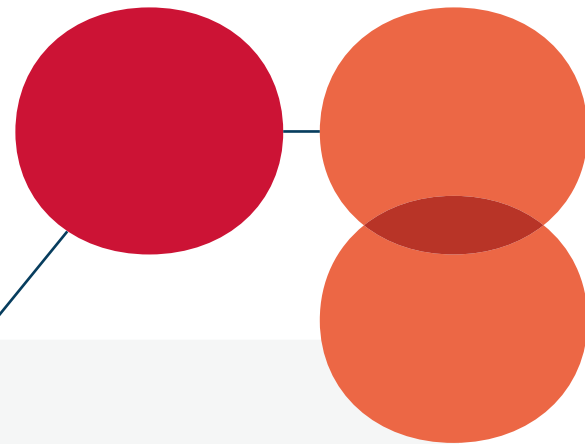
Responsibility for Learning Extends Beyond Schools

Across the varied partner dynamics, what stands out is not only who is involved in learner-centered ecosystems, but their role in young people's development. This reflects a shift away from institution-centered models of education, where primary responsibility for outcomes rests on schools and teachers, toward more networked systems of support.

Across the 10 ecosystems studied, nearly all sites reported that communal shared responsibility for young people's learning was at least moderately evident, with several indicating that it was significantly evident. While this dataset does not allow for causal analysis, the consistency suggests a consistent pattern: **Communities with broader and more diverse partnership networks also report that the responsibility for learner outcomes is more broadly distributed across the community.**

This pattern has important implications. For young people, it expands access to learning opportunities, relationships, and pathways. For communities, it raises the possibility of more resilient systems that do not rely on any single institution to sustain themselves independently or to meet a learner's every need.

In practice, this redistribution of responsibility becomes visible through how and where learning happens, as well as in how resources, expertise, and relationships are mobilized toward a common purpose.



In Tennessee, learners at The Lab School of Memphis spend one day each week at Gnarled Oak Farm, working alongside farmers and engaging in hands-on, place-based learning.

This partnership not only expands the range of learning experiences available to learners, but brings new adults into sustained relationships with learners. What distinguishes this example is the continuity of engagement. Rather than serving as a one-time or supplemental experience, the farm becomes a regular learning environment where farmers interact with learners over time. Through these ongoing relationships, responsibility for supporting learners' growth extends beyond educators to include members of the broader community.

This same philosophy shapes how The Lab School approaches partnerships more broadly. When a learner worked with community partners to design and produce her own custom t-shirts featuring original artwork to sell, she reflected: "I've never done anything like it. I never thought it was possible to put my art on t-shirts...and I'm really proud of myself for it." That moment of pride captures what becomes possible when the community becomes the classroom—learners encounter not just new skills, but new beliefs about what they are capable of.

In Dallas, Texas + Newport, Rhode Island

organizations such as Big Thought and FabNewport have built expansive out-of-school networks that engage several community-based organizations, business leaders, community officials, and local artisans as mentors and content experts. Rather than a single organization maintaining primary responsibility for young people's development, community-based organizations serve as key points of connection, building ongoing relationships with learners while other partners contribute opportunities, expertise, and pathways. In this model, responsibility is shared across organizations, each contributing to different aspects of young people's development.

“Industry partnerships through Virtual Innovation Labs and Tech internships [create] shared ownership of learning.”

COHORT MEMBER

In Indianapolis, Indiana, Purdue Polytechnic High

emerged from a partnership between Purdue University and local charter school leaders seeking to address disparities in college access and success for local populations. The partnership reflects a collective response to a shared community challenge, distributing responsibility for supporting learners across K-12 and higher education institutions.

In Ojai, California, Rock Tree Sky

coordinates a broad network of partners, including schools, businesses, community-based organizations, higher education institutions, media organizations, and service providers, each contributing to different aspects of the ecosystem. Schools serve as a point of connection to learners and, through independent study structures and policies, help expand access to learning opportunities beyond the traditional school day and staff. Businesses offer applied learning opportunities, community organizations support programming, and other partners enable communication, access, and well-being. Responsibility is distributed across these functions, allowing the ecosystem to support learners more holistically than any single organization could alone.

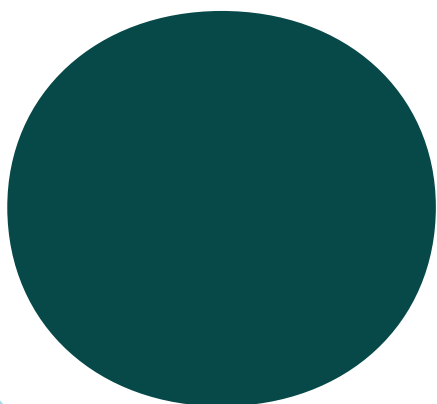
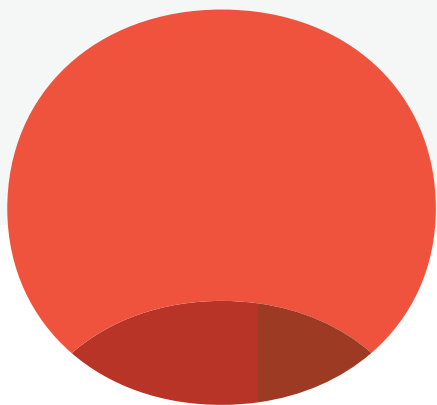


“Relationship-building
is essential to ensure
partners feel ownership and
responsibility for learners.”

COHORT MEMBER

Across these examples, partnerships do more than expand learning opportunities; they reorganize how responsibility for learning is understood and enacted. Learning becomes a shared endeavor, supported by a web of relationships across schools, families, organizations, and community institutions. In turn, these partnerships likely contribute to ecosystem durability by distributing work and ownership across multiple partners.

For the field, this raises important questions: How might accountability systems, funding structures, and policy frameworks evolve to reflect the reality of more distributed, networked learning? And, how might we better understand the impact of these shifts not only on learner outcomes but also on the health and vitality of the communities from which they emerge?



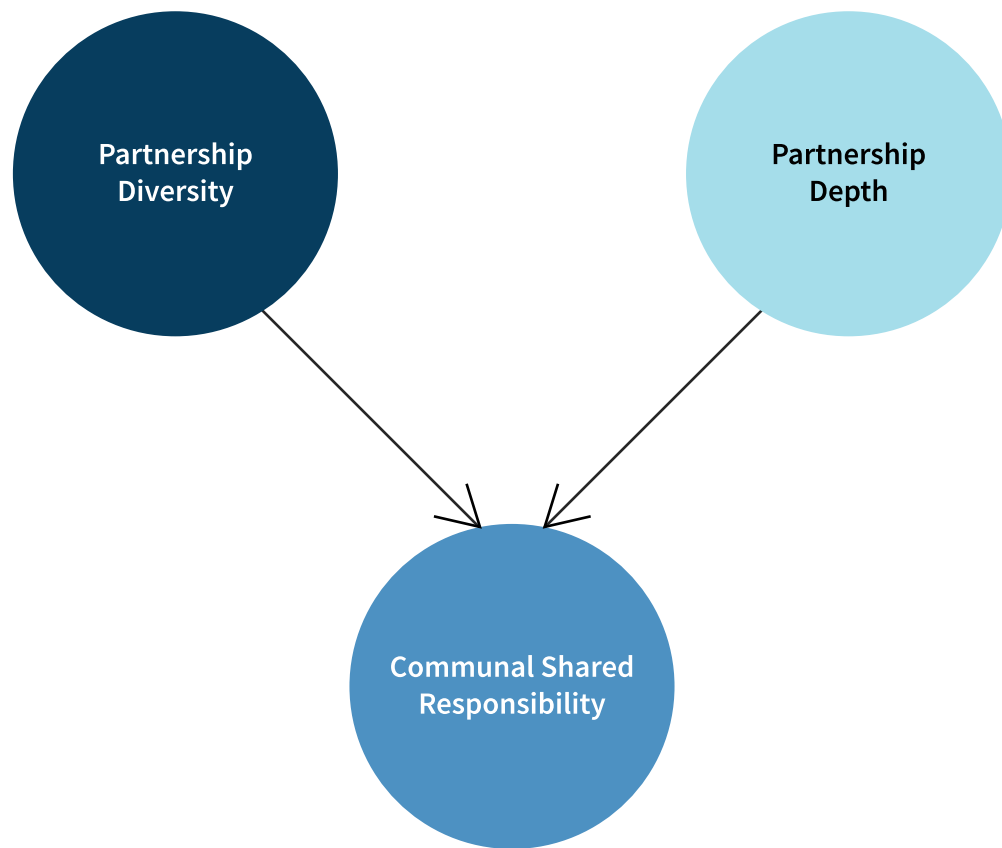
Conclusion

Partnerships are not simply a strategy within ecosystem building. This study suggests that partnerships may represent a central structural feature of how learning systems can be organized. Understanding partnerships as infrastructure shifts the focus from isolated interventions to the coordination of actors, opportunities, and supports across a broader network.

At the same time, the variation observed across sites indicates that ecosystems do not follow a single developmental pathway. Rather than conforming to standardized models, they are structured as locally configured networks shaped by community assets, relationships, and priorities. This suggests that efforts to scale ecosystem approaches should focus less on replication and more on strengthening local capacity for relationship building, coordination, alignment, and collaboration.

Figure 4

Conceptual Model of Partnership Infrastructure in Ecosystems



Note. Partnership diversity and depth can be understood as forms of infrastructure, shaping the extent to which responsibility for learning is distributed across a community.

The findings from this study point to a conceptual model: Partnership diversity and depth operate together to influence how responsibility for learning is distributed across a community. The model suggests that partnership diversity and depth may help explain how learning opportunities are organized and how responsibility is shared across partners.

Rather than representing a single pathway, this model reflects how ecosystems organize differently based on local circumstances, relationships, and priorities. It offers a starting point for understanding ecosystems not simply as collections of partnerships, but as a possible system architecture for organizing learning across settings.

Future research could build on these findings by examining how different configurations of partnership diversity and depth influence the strength and sustainability of shared responsibility over time and what it takes to support these systems as they evolve.

REFERENCES

- Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Harvard Education Press.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review*, 66(s1), 44–55. <https://doi.org/10.1111/j.1540-6210.2006.00665.x>
- Díaz-Gibson, J., Daly, A. J., Miller-Balslev, G., & Cívís Zaragoza, M. (2021). The SchoolWeavers tool: Supporting school leaders to weave learning ecosystems. *School Leadership & Management*, 41(4–5), 429–446. <https://doi.org/10.1080/13632434.2020.1770210>
- Dryfoos, J. (2002). Full-service community schools: Creating new institutions. *Phi Delta Kappan*, 83(5), 393–399. <https://doi.org/10.1177/003172170208300515>
- Education Reimagined, & History Co:Lab. (2023). Ecosystems for the future of learning. Education Reimagined. <https://education-reimagined.org/wp-content/uploads/2024/11/Ecosystems-for-the-Future-of-Learning-FINAL-Report.pdf>
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360–1380.
- Ito, M., Gutiérrez, K., Livingstone, S., Penuel, W., Rhodes, J., Salen, K., Schor, J., Sefton-Green, J., & Watkins, S. C. (2013). *Connected learning: An agenda for research and design*. Digital Media and Learning Research Hub.
- Kania, J., & Kramer, M. (2011). Collective impact. *Stanford Social Innovation Review*, 9(1), 36–41.
- Maier, A., Daniel, J., Oakes, J., & Lam, L. (2017). *Community schools as an effective school improvement strategy: A review of the evidence*. Learning Policy Institute.
- National Research Council. (2015). *Identifying and supporting productive STEM programs in out-of-school settings*. National Academies Press.
- OECD. (2017). *The OECD handbook for innovative learning environments*. OECD Publishing.
- Remake Learning. (2021). *Remake Learning Playbook*. Pittsburgh, PA: Remake Learning.