

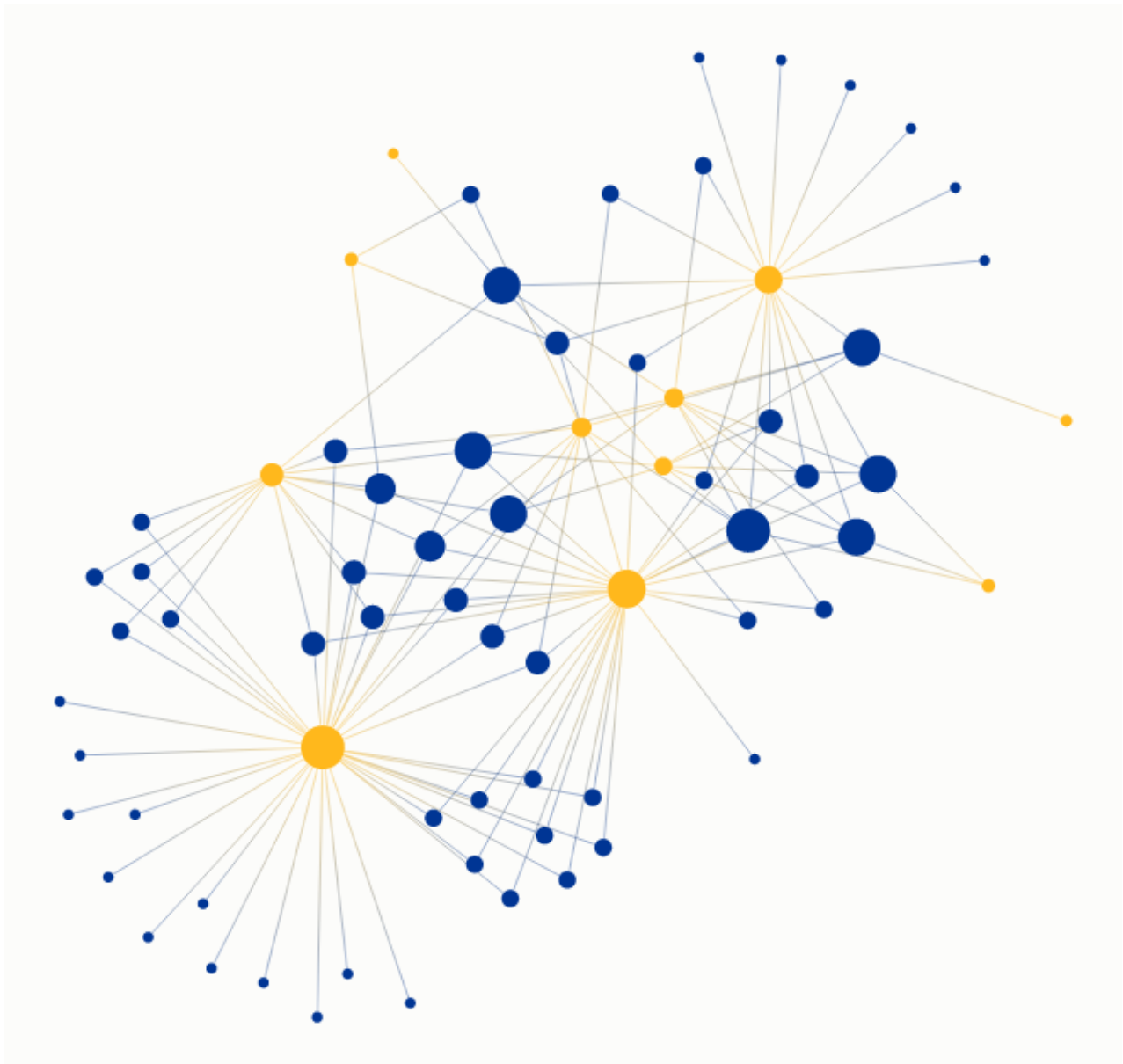


Reading. Racial Equity. Relationships.

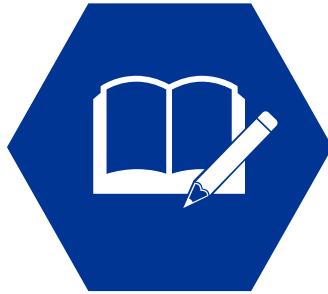
With the Community

MAPPING THE ORGANIZATIONS IN ALLEGHENY COUNTY'S LITERACY ECOSYSTEM

RESEARCH REPORT



August 2021



A Letter From The Authors

What do you envision when you imagine a "literacy paradise"? This is a question we in the 3Rs Initiative think about a lot. The 3Rs Initiative is housed at the University of Pittsburgh's Office of Child Development and is the early-school age cohort of The Pittsburgh Study, a longitudinal community-engaged study looking at what supports thriving from prenatal through adolescence. 3Rs stands for "Reading, Racial Equity, and Relationships". The 3Rs Initiative is a team of families, community members, professionals, and scholars who are committed to ensuring all K-3rd grade students in Allegheny County thrive by focusing on cultivating racially equitable, warm, and affirming literacy experiences.

Over the last year, we engaged in an ecosystem mapping project with literacy organizations in Allegheny County. The purpose of this project was to find out how these organizations support children's literacy development, how they connect with each other, and what they imagine a literacy paradise would look like. In this report, we share our findings from this project and a brief overview of the ecosystem mapping process. These findings are useful to the 3Rs because they help us understand what is already being done in the community to support literacy development so we do not duplicate efforts. It also helps us identify areas where 3Rs can offer support, particularly around the ongoing development of racial competencies. Perhaps most importantly, however, is that through this process of mapping we have built relationships with key literacy organizations in our community, relationships which will be integral to any future system-wide effort to support literacy development across the county.

We would like to thank The Pittsburgh Study's funders, UPMC Children's Hospital Foundation, The Grable Foundation, the Shear Family Foundation, The University of Pittsburgh Department of Pediatrics, PNC, and the Heinz Endowments, as well as the University of Pittsburgh's School of Education Student/Faculty Research Grant which made this project possible. Additionally, we would like to thank the 3Rs Scientific Committee and the participating organizations for their ongoing support and feedback which has shaped all aspects of this project.

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3Rs INITIATIVE

READING RACIAL EQUITY RELATIONSHIPS

What is the 3Rs Initiative?

As part of the Pittsburgh Study, a community-driven intervention study to enhance youth thriving, The Early School Age Cohort has developed a literacy initiative focused on 3Rs: Reading, Racial equity, and Relationships for kindergarten through third grade students in Allegheny County.



The 3Rs Initiative uses a 4-strand approach to support the early literacy ecosystem by working with (1) families, (2) classroom teachers, (3) community organizations, and (4) educational leaders. Two foundational tenets of the 3Rs are that high-quality literacy experiences are inextricably linked to living in an equitable society and having strong relationships among children, adults, and organizations.



3Rs with Community Organizations

In the Community Strand, we are focused on the organizations that support children’s literacy development. Our goal is to engage these organizations in communities of practice that foster ongoing development of competencies around racial equity and relationships in children’s literacy programming and organizational efforts. We spent the last year getting to know these organizations and the work they do. This report is a summary of what we have learned.

The Pittsburgh Study

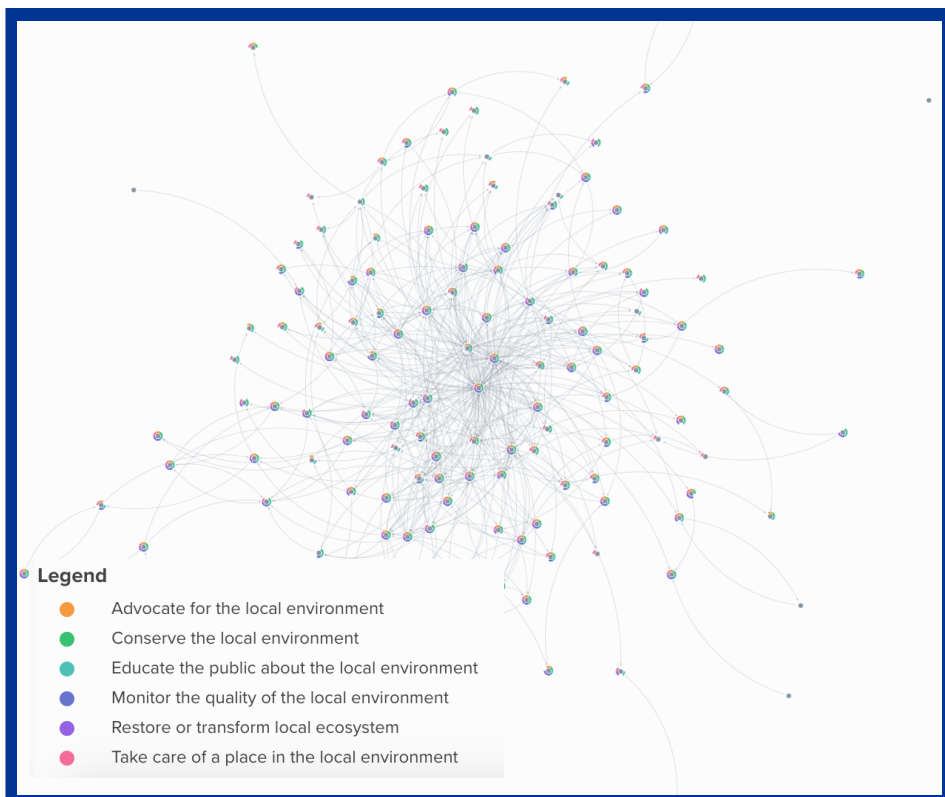
PI's: Liz Miller and Felicia Savage Friedman
<https://www.chp.edu/research/pittsburgh-study>

The 3Rs Initiative

PI's: Shallegra Moye and Shannon Wanless
<https://www.oed.pitt.edu/programs-services/pittsburgh-study-early-school-age-cohort>

What Is ECOSYSTEM MAPPING?

A **social ecosystem** is made up of people and/or organizations ("actors") and the relationships among them ("ties"). **Ecosystem mapping** is the process of identifying (1) key actors in a social system, (2) the connections or "ties" between them, (3) and the types of exchanges that occur in these connections.



This is an example of a social ecosystem map from Kumu.org showcasing relationships between environmental stewardship organizations in Baltimore. In this map, the circles represent organizations (actors) and the curved lines (ties) tell us which organizations know of or work with each other. This map has an added feature of colors, which tell us more about the missions of each organization.

Ecosystems Are Complex! (And How To Simplify Them)

Ecosystems are comprised of many overlapping networks which are constantly changing and can be hard to disentangle. For that reason, when we talk about "ecosystem mapping" we are usually talking about mapping only one or a few parts of an ecosystem and not the entire ecosystem as it exists in real time. To do this, we have to draw artificial boundaries around the networks within the ecosystem we want to study. Where we draw these boundaries depends on the questions we are asking. In this project, we wanted to understand the organizational network that supports literacy learning in our regional literacy ecosystem. Thus, we selected only organizations to participate in this project. Future iterations of this work might explore the school, family, and additional community networks that support literacy development, as well as integrating all of these networks into a larger map of the ecosystem.

What We Can Learn From Ecosystem Mapping

Ecosystem maps are a lot like geographical maps: they help us see the landscape from a birds-eye view and provide direction on how to get from where we are to where we would like to be. Ecosystem mapping can help us describe and understand how a group of people and organizations work together and highlight potential for future action. In this project, we aimed to identify the key actors in the Allegheny County organizational literacy ecosystem and the ways they work together. By mapping this ecosystem, the 3Rs hopes to identify opportunities to create strategic partnerships with and among organizations, and to leverage existing ties. Over time, we may repeat this mapping process to see if there are changes to the ecosystem that support stronger reading, racial equity, and relationships for children.



3 Things To Learn From Ecosystem Mapping:

Who is in the network	Key actors in an ecosystem may not always be the people or organizations we think of, which is why it is important to ask people who the key actors are in their network. Further, understanding what these actors do helps us understand all the ways community needs are (or are not) being met by these people or organizations. It also can be used to reduce duplication of efforts by new or existing organizations.
What the network looks like	Through ecosystem mapping, we start to see the underlying structure of networks within the ecosystem. Are these dense networks where everyone seems to know or work with each other? If so, how can we leverage already existing connections to meet new or evolving community needs? Or are these networks loosely connected with lots of actors working in isolation? If so, are there opportunities for forming strategic connections that might positively impact the community? Understanding what the network looks like can help us address these questions.
How to engage with network members	Mapping an ecosystem is about more than just the finished product. It is about the process of engaging stakeholders in thinking about the networks within which they are embedded and forming relationships with these stakeholders. In the case of the 3Rs Initiative, we are a newly formed community-engaged project. Thus, it was important to us to not just understand who is here and what they are doing, but to form meaningful, reciprocal relationships with these organizations, which the process of surveying, interviewing, and holding feedback sessions with organizational participants allowed us to do.

Mapping Allegheny County's Literacy Ecosystem

To map the organizations in the literacy ecosystem, we addressed three broad research questions in three steps. We used mixed-methods to analyze the data and reflect on it with participants and 3Rs Initiative staff and community members.

Our three research questions were:

- 1. Key Organizations:** What key organizations support literacy learning in our county and what roles do these organizations play in the community?
- 2. Connections:** How are organizations connected as (a) partners and (b) geographically by locations served?
- 3. Shared Vision:** What would a literacy paradise look like to these organizations and how do their visions overlap?



STEP 1

IDENTIFY KEY ORGANIZATIONS AND THE ROLES THEY PLAY IN THE ECOSYSTEM



STEP 2

IDENTIFY CONNECTIONS BETWEEN ORGANIZATIONS AND THE LOCATIONS THEY SERVE



STEP 3

IDENTIFY SHARED VISIONS OF A LITERACY PARADISE



METHODS

Data Collection: We conducted a mixed-methods study by combining network analysis and qualitative analysis. We gathered data through surveys and interviews with representatives from eleven organizations that had a core focus on literacy in Allegheny County. Survey and interview questions focused on organizations' missions and services offered, finding out who they worked with and the nature of that work, what they perceived the current state of the literacy ecosystem to be, and what a thriving literacy paradise would look like.

Data Analysis: To analyze the qualitative data from surveys and interviews, we used a combination of inductive and deductive processes resulting in three sets of codes, one for each research question: organizational roles in the community, types of connections between organizations, and visions of a literacy paradise. Network data (i.e., who organizations work with and the locations they serve) were modeled using Kumu software (Kumu.org). Analysis of organizational connections by shared aspects of a literacy ecosystem were modeled using UCINET (Borgatti et al., 2002).

Feedback Sessions: We met with participating organizations after our initial mapping process to get feedback on whether our maps were accurate, useful, and interpretable. This resulted in us excluding one of our original maps from further analysis. We also held a feedback session with our 3Rs Scientific Committee, a group of community experts, stakeholders, and researchers, and asked the same three questions about the maps. This resulted in deep conversation about the maps, but no significant changes to them.

CHARACTERISTICS

Of Participating Organizations

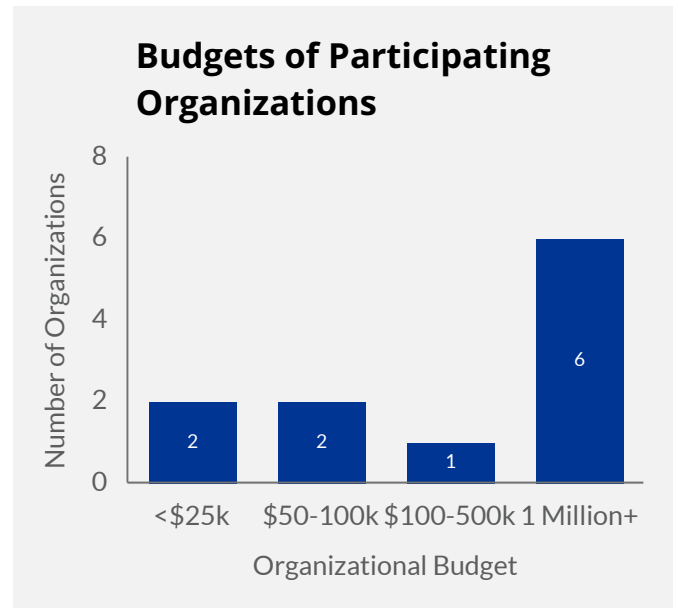
The eleven organizations that participated in this project were recruited through a nine-month snowball process. We started by asking those around us who in the community we should be talking to about reading, racial equity, and relationships. Our project manager conducted ethnographic interviews with the people referred to us, which included community members, organizational representatives, researchers, and more. Through this process we developed a list of fourteen organizations in the county for whom literacy is a key or primary component of their services or programming, eleven of whom agreed to participate in this project. All of these eleven organizations directly serve children, with more than half offering additional services for families (8) and professionals working with children (7).

Range of participating organizations' founding years:

1888-2019

Collective number of children and families in the county served by participating organizations:

770,548



Location of Services or Programming

1. In community buildings/spaces (10)
2. Online (9)
3. In schools (8)
4. On-site at organization's location (4)
5. Other (5)

Types of Literacy Activities Organizations Offer:



1. Read books with children (11)
2. Teach reading skills to children (6)
3. Teach reading skills to adults to teach to children (5)
4. Teach writing skills to children (5)
5. Teach writing skills to adults to teach to children (2)

1

IDENTIFY KEY ORGANIZATIONS AND ROLES

Step 1 in ecosystem mapping is identifying **key types of organizations** in the ecosystem and the **roles they play** in the broader community.

What We Did

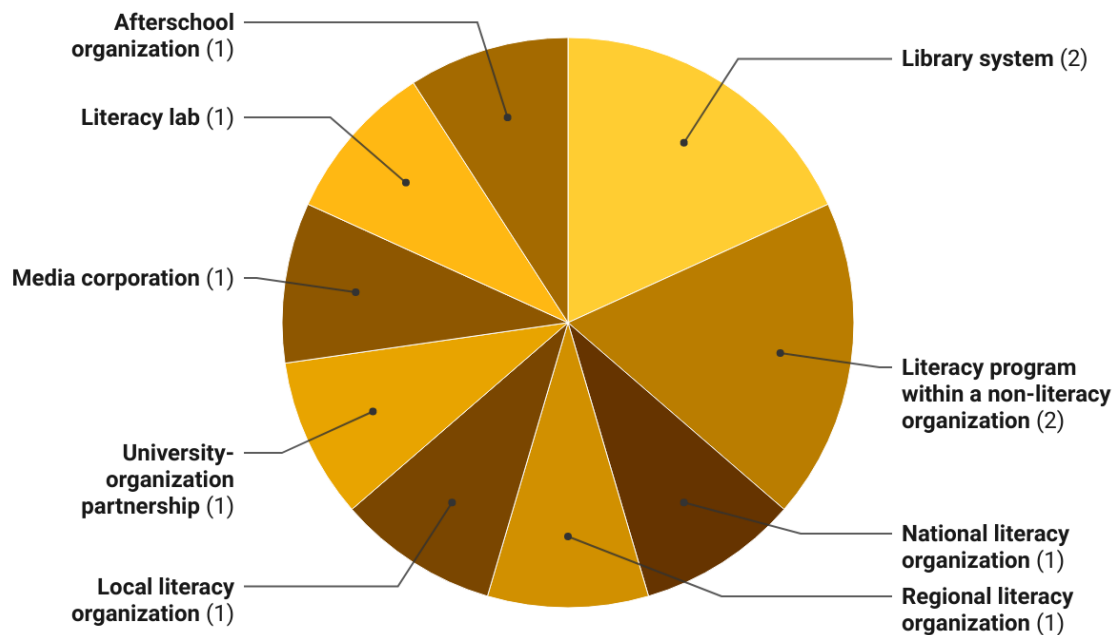
Identified the types of organizations that participated in this project and analyzed their missions, visions, and responses to the question, "What role do you play in the ecosystem?"

What We Found

Nine key types of organizations playing twelve roles in the community; two of these roles were specifically related to literacy and ten were broader roles related to community well-being.

Key Archetypal Organizations

We focused on organizations that had an explicit or primary focus on literacy in their programming or services. Through our snowball sampling process, we discovered that there were nine organizational archetypes in this network. Identifying these archetypal players allowed us to identify broad categories or types of organizations that we might expect to see in other literacy ecosystems before diving deeper into the perspectives of these organizations that are context specific.



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The numbers indicate how many of each type participated in this project.

ROLES

We can think of the roles organizations play as the niches they fill in the community. Understanding the niches organizations fill can highlight what they bring to the community. When it comes to educational organizations, these roles often go above and beyond a specific content area (such as literacy) and encompass a wealth of functions that support thriving communities.



METHOD

We coded responses to survey and interview questions about organizations' missions and roles deductively using eight pre-identified categories adapted from Horyns and Decker (1992). These categories did not adequately capture organization's focus on social justice (a key aspect of the 3Rs), however, so that was added as an additional category and was explicitly influenced by Acosta & Duggins' (2018) discussion of organizations as social justice spaces. Lastly, two categories specific to literacy ("increase access to books" and "expanded culture of literacy") were added.

Organizational Roles

Participating organizations actively worked to support the following twelve roles in the broader community. Cohen's kappa for intercoder reliability for these codes was .92. The numbers indicate how many organizations explicitly mentioned this as a role they play.

(N = 11)

Lifelong and lifewide learning	11
Institutional responsiveness	11
Integrated services	11
Self-determination	10
Self-help	10
Localization	10
Social justice	10
Increase access to books	10
Inclusion and diversity	9
Expanded culture of literacy	9
Leadership development	7
Reduced duplication of services	3



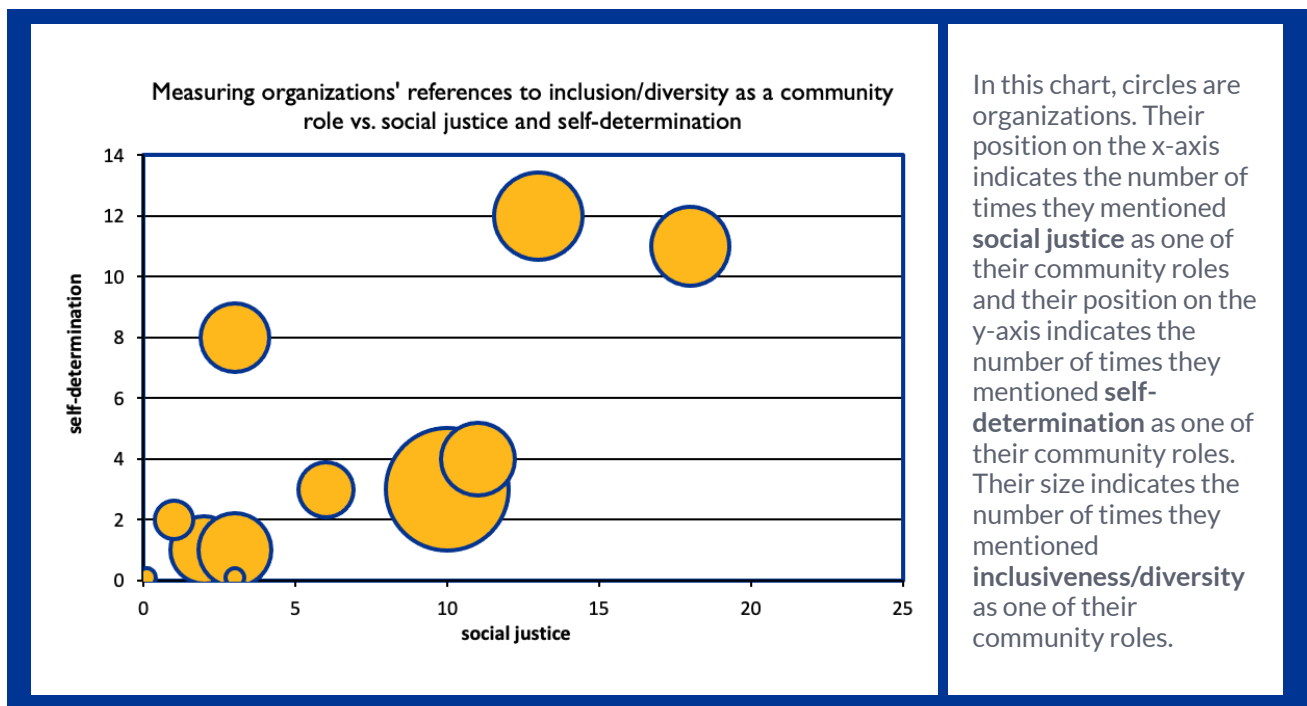
ROLE DEFINITIONS

Organizational Role	Definition
Lifewide and lifelong learning	"Formal and informal learning opportunities should be available to community members of all ages in a wide variety of community settings."
Institutional responsiveness	"Serving the continuously changing needs of the public is an obligation of public institutions since they exist to serve the public."
Integrated services	"Interagency cooperation among organizations and agencies that operate for the public good can meet their own goals and better serve the public by collaborating with other organizations and agencies that are working towards common goals."
Self-determination	"All community members have a right and responsibility to be involved in determining community needs and identifying community resources that can be used to address those needs."
Self-help	"Community members are best served when their capacity to help themselves is encouraged and developed. They become part of the solution and build independence rather than dependence when they assume responsibility for their own well-being."
Localization	"The greatest potential for high-level public participation occurs when services, programs and community involvement opportunities are close to where people live."
Social justice*	This goes beyond inclusion and diversity to include the ways in which all children, and specifically children of color, are seen, valued, lifted up, and included in ways that honor and affirm their racial identities. It also includes efforts related to economic, ability, age, and gender equity.
Increase access to books*	Increasing access to books through programming, services, lending, etc.
Inclusion and diversity	"The segregation or isolation of people by age, income, social class, sex, race, ethnicity, religion or handicapping ability inhibits the full development of the community. Inclusion of the broadest cross-section possible of community residents is warranted in the development, planning and implementation of community programs, services and activities."
Expanded culture of literacy*	Formal literacy pedagogy includes learning to read and write. An expanded culture of literacy includes two things: (1) a conceptualization of literacy as going beyond reading and writing to include other subjects and activities (for example, music, arts, and science) in the process of literacy development, and (2) that conceptualization goes beyond just pedagogy to include practices, beliefs and attitudes towards what literacy is and should be about.
Leadership development	"Local leaders must be trained in such skills as problem-solving, decision making and group process as a means of sustaining ongoing self-help and community improvement efforts."

All definitions are from Horyns and Decker (1992, p. 33) with the exception of those marked with an asterisk (*). Social justice was informed by Acosta and Duggins (2018); increase access to books and expanded culture of literacy were created by the first author.

A Closer Look at Social Justice

Social justice could be related to many of the other community roles. For example, institutional responsiveness to community needs would not be socially just if it devalued the needs of certain communities over others based on race or income. Likewise, increasing access to books would not be socially just if it did not consider already existing privileges and opportunities for access to books in society. Two roles that stood out in our analyses, however, as being uniquely related to social justice were self-determination and inclusion/diversity (see page 11 for full definitions). In the bubble chart below, we examine the extent to which organizations that discussed inclusion/diversity also discussed social justice and self-determination.



What this graph shows is that mentions of social justice and self-determination tended to increase together. This makes sense given that social justice is highly related to the idea of self-determination and honoring the power of communities to determine their own values and needs. However, organizations that mentioned inclusion/diversity frequently did not necessarily have greater association with ideas of social justice and self-determination. This signifies that although social justice and inclusiveness/diversity are conceptually distinct, organizations may be using one phrase or the other for the same idea.

Key Takeaway: It is not clear whether organizations view inclusion/diversity and social justice as distinct or related roles. We see a need for further social justice and equity learning for organizations to ensure that there is clarity around importance nuances in terminology and to be intentional about which approaches to equity they aim to implement.

2

IDENTIFY CONNECTIONS

Step 2 of ecosystem mapping is identifying **connections** between organizations in terms of inter-organizational partnerships and locations served.

What We Did

Made two network maps visualizing organizations' partnerships with each other and the locations they serve.

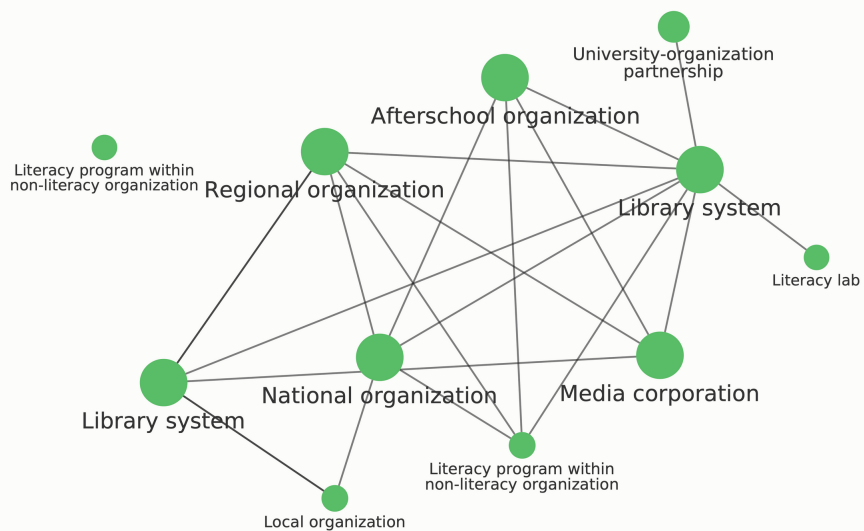
What We Found

Organizations in this study comprise a highly connected network with partnerships primarily involving some type of resource exchange. Most organizations are located in neighborhoods and school districts closer to the city center and with lower percentages of proficient readers.

Inter-organizational Connections

Identifying the elements of an ecosystem or network only reveals part of the story. The other part of the story depends on the relationships or connections between those elements. These connections are the building blocks of ecosystems and help us to see the overall architecture of the network. Depending on the context, one may desire different network structures. If trying to stop the spread of a virus, a highly disconnected network with more gaps between people would be preferred. However, in a learning community, we might hope that organizations are all connected somehow (either through intentional collaboration or even just knowing what the other is up to) to best serve children and families. In this section, we made two maps: one identifying partnerships between organizations and the other identifying connections through geographical locations served.

In this first map we used Kumu (Kumu.io) stakeholder mapping to visualize relations between participating organizations based on survey and interview responses regarding who they partner with. In a stakeholder map, organizations are represented as **nodes** (circles) and relations are represented as **ties** (lines). Nodes are sized according to the organization's budget. We did not depict tie strength because, as we learned, quantifying the nature of relations between organizations is a complex task that would require extensive additional data collection.



Key Takeaway: Participants in this study comprise a highly connected network of varying organizational sizes with only one isolated node.

We held a feedback session with participants to identify errors in the maps and discuss their potential uses. Here is what they had to say:

"I love to see all the connections in the area. What a wonderful depiction! It makes me want to make many more connections!!!"

"I love the maps!!! I want to make some and I think these would be great to have on hand to show our boards, etc."

"I think this is extremely helpful, within the context of understanding how we can maximize impact in what services we offer."

Types of Connections Between Organizations

When asking organizations which other organizations they work with, we also asked them what the nature of that work was. We coded their responses deductively using three categories from Tuma (2020): resource exchange, creating connections (between people), and co-creating resources. Cohen's kappa for intercoder reliability of these codes was 1.00. The numbers indicate how many organizations explicitly mentioned this category as the nature of their partnership with another participating agency.

Category	Number of Organizations (N=11)	Definition
Resource exchange (money, materials, services, people, knowledge, and space)	11	Interactions that involve the acquisition of resources. These are typically one-way interactions where an organization describes giving or receiving some type of resource from another organization.
Creating connections	9	Interactions with other organizations or schools that involve creating connections between people or persons that would otherwise not be connected (e.g., between another organization and families or between families and a community group).
Co-creating resources (events, materials, programs, services)	6	Interactions with other organizations or schools that involve the creation of new resources.

Connections By Location

In this second map, we connected the dots between organizations and the locations they serve. We wanted to understand how services are distributed across the county, as well as identify potential sites for strategic intervention.

About the map

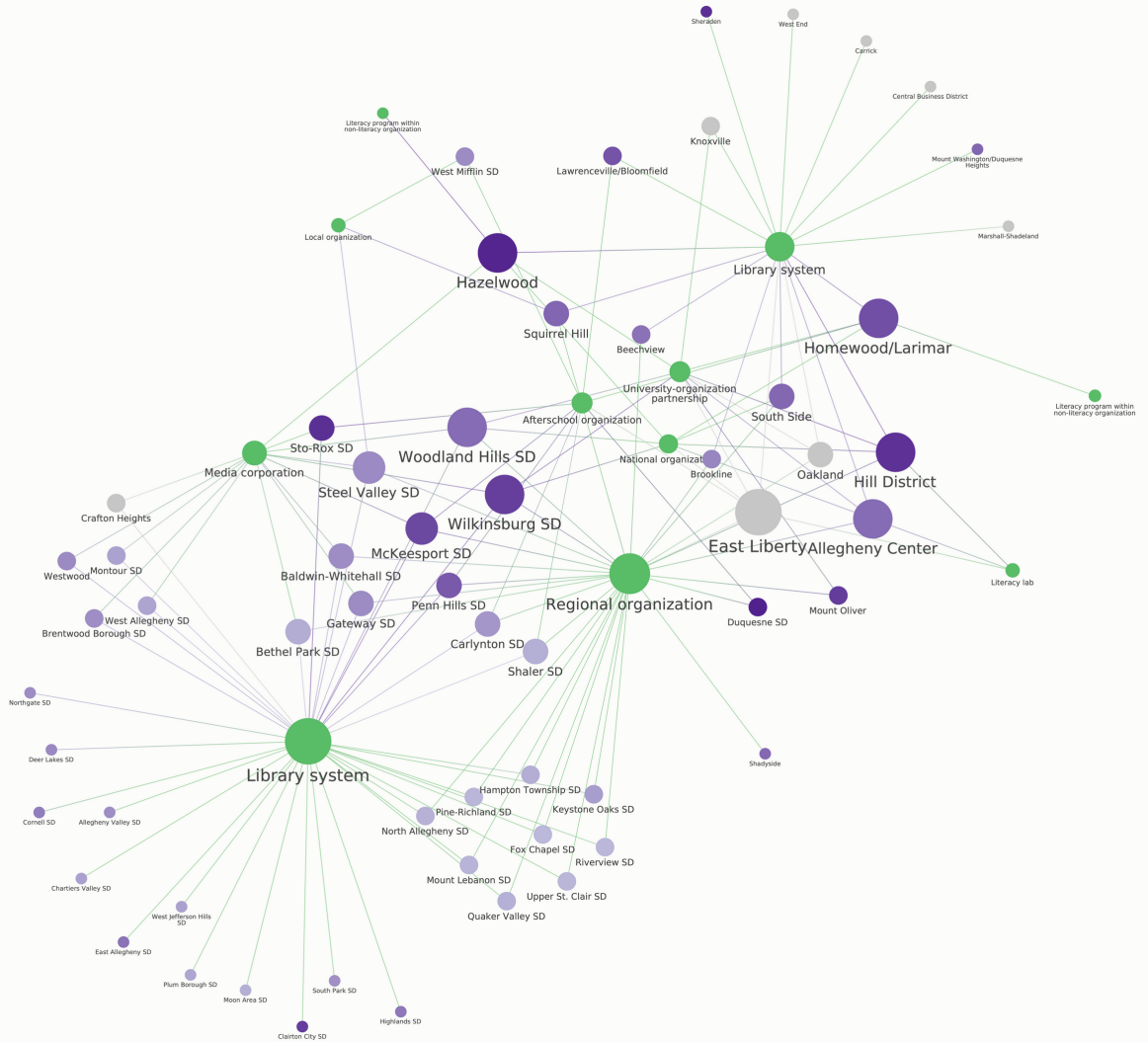
Colors

In this map the purple and grey circles are **locations** (either neighborhoods in Pittsburgh or school districts if outside the city) and the green circles are **organizations**. The shade of purple indicates third grade reading proficiency rates, with lighter purple indicating higher and darker indicating lower percentages of proficient readers (according to 2019 standardized test scores; grey circle locations have no available test scores).

Sizes

The size of the purple circles represents **degree**, or the number of organizations working in that location. Organizations are sized by a combination of the number of connections they have to other organizations and the number of locations they serve and acts as indicator of their reach.

Organizations and the Locations They Serve



Key Takeaway: The two library systems and the regional organization have the greatest reach in the network. Organizational presence is concentrated in neighborhoods and districts closer to the city center and with lower reading proficiency scores.

What participants said about this map:

"I think the biggest benefit with this map is it makes it easy to identify neighborhoods that might be 'slipping through the cracks'."

"[This map] provides an interesting visual to see if neighborhoods with more [organizations] have better scores, or if there are neighborhoods that need more help but aren't getting it."

3

IDENTIFY SHARED VISIONS

Step 3 in ecosystem mapping is determining if **organizations' visions of a thriving literacy ecosystem** overlap with one another and/or with the 3Rs objectives.

What We Did

Qualitatively analyzed organizations' descriptions of a thriving literacy ecosystem and compared how their visions overlapped with each other and with 3Rs objectives.

What We Found

Organizations collectively have a robust vision for a thriving literacy ecosystem consisting of 26 components at the systems, community, school, child, and pedagogical levels. Of these components, 69% explicitly overlap with 3Rs goals.

ENVISIONING A LITERACY PARADISE

In this section we asked organizations to conceptualize what an ideal literacy ecosystem - what we called a "literacy paradise" - might look like. We then connected organizations by shared descriptions of a literacy paradise in two affiliation maps. Finally, we compared organizations' description of a literacy paradise with the 3Rs vision of a thriving literacy community.

We asked organizations:

"Imagine a new city in the United States is created with no literacy infrastructure to start. A foundation with endless resources agrees to fund the ongoing development of literacy in this city. If your organization could decide where and how to allocate resources, what would you say is essential to a thriving literacy landscape?"



METHOD

Responses from organizations were first inductively coded into five broad categories:

1. Systems-level components
2. Community-level components
3. School-level components
4. Child-level components
5. Books, pedagogies, and practices

Responses were then inductively sub-coded into twenty-six components (see next page).

Components of a Literacy Paradise

The numbers indicate how many organizations mentioned this component as being an essential part of a literacy paradise. Cohen's kappa for intercoder reliability for these codes are indicated in parenthesis. A full description of each code is included in the Appendix.

SYSTEMS-LEVEL (.100)	(N=11)
Food and transportation	5
Public health supports	5
Internet/device access	5
Economic equity in literacy	3
Smart literacy policy	3
COMMUNITY-LEVEL (.100)	
Multi-level systems approaches	11
Supporting families' literacies	11
Literacy continuity across community	10
Valuing community voice and power	8
Equity and social justice efforts	6
Invest in people	6
Reflective learning communities	6
SCHOOL-LEVEL (.94)	
Rethinking school systems	7
Literacy supports in schools	3
Social emotional supports in schools	2
CHILD-LEVEL (.94)	
Children are valued agents	2
Meeting academic benchmarks	2
BOOKS, LITERACY PEDAGOGIES & PRACTICES (.90)	
High-quality, culturally relevant books	7
Hands-on learning	6
Responsive and affirming literacy practices	6
Expansive culture of literacy	6
Joy in reading	5
Research-based programming	2
Improved online learning	2
Technology with educational goals	2
Asset-based approaches	2

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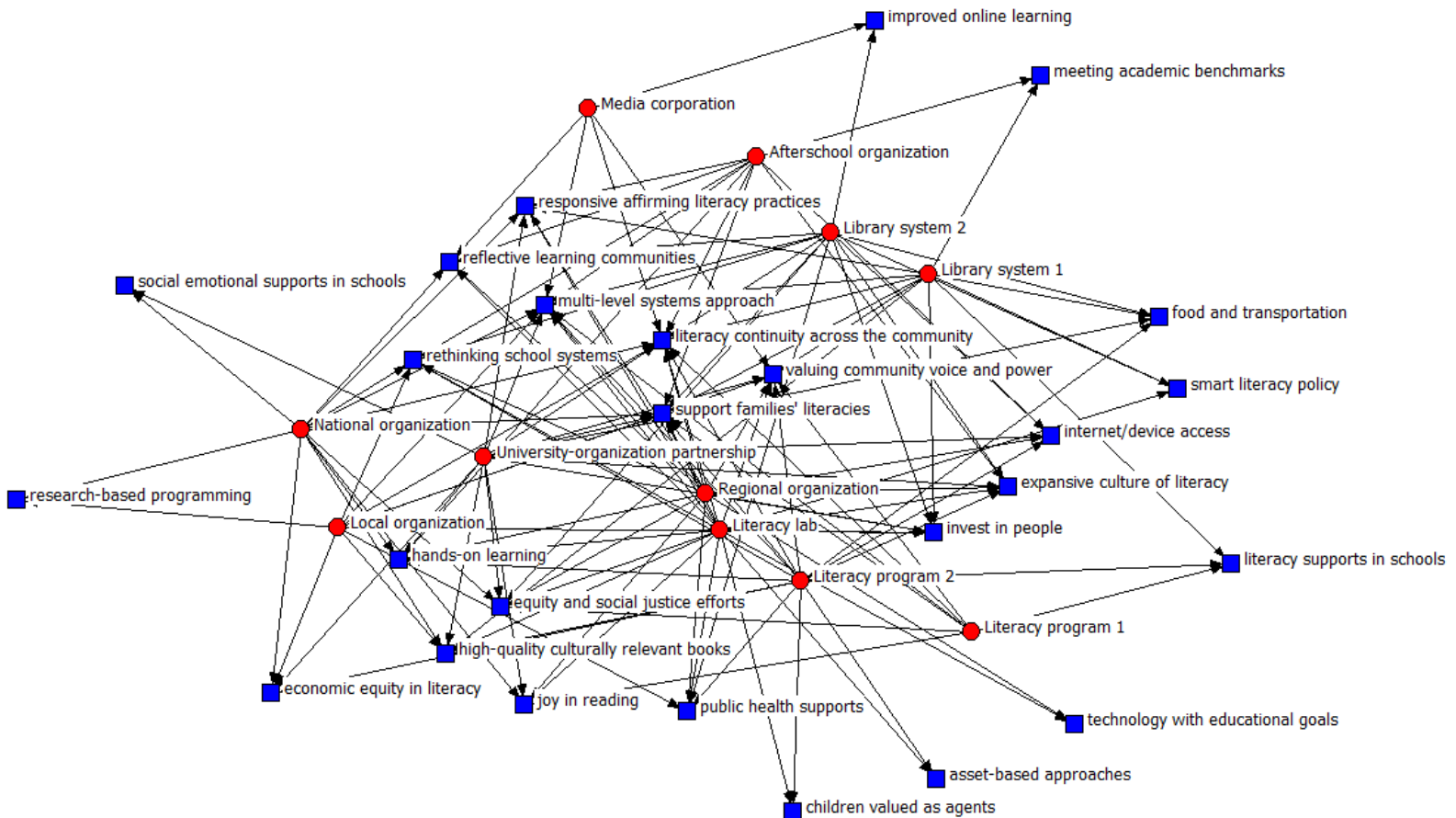
Overlap Between Organizations

In these maps, we conducted bimodal network analyses to determine which organizations are related by their visions for a literacy paradise.

Bimodal graphs represent connections or "affiliations" between two types of elements in a network. In these maps, the two types of elements are (1) organizations and (2) components of a literacy paradise. We made these maps to help us see which organizations have shared visions of a literacy paradise (first map) and the strength of these associations (second map). We used UCINET (Borgatti et al., 2002) to create both maps.

BIMODAL AFFILIATION MAP

Interpreting this map: In this map, organizations (red circles) are connected to ("affiliated with") the components of a literacy paradise (blue squares) they explicitly mentioned in their responses. The blue squares closer to the center of the graph are core features of a literacy paradise discussed by more organizations; those further outside of the central cluster were mentioned by fewer organizations. Organizations in this graph are near those with whom they shared more components of a literacy paradise.



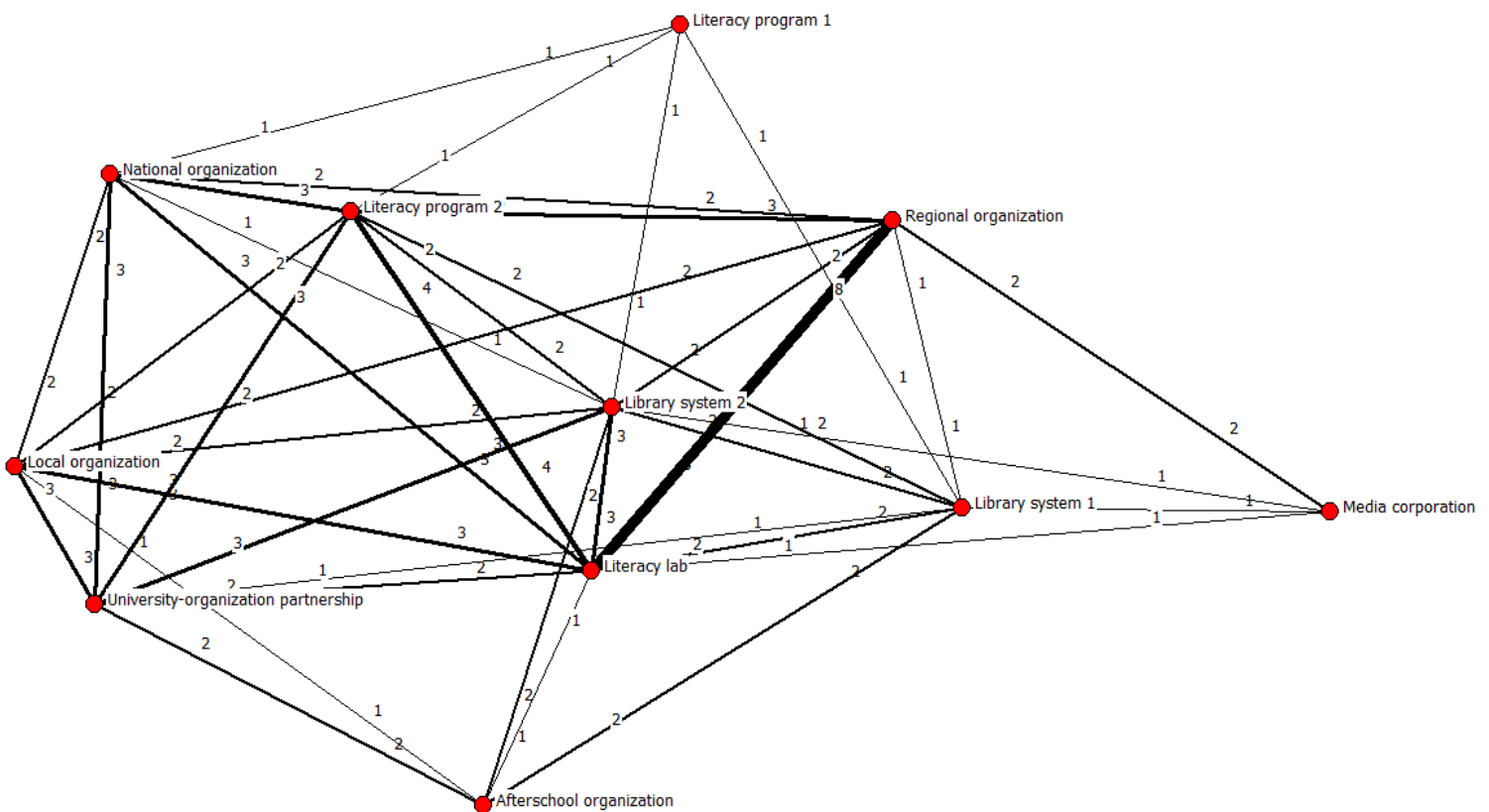
Key Takeaway: There are no isolated nodes in this map. All organizations are connected through their descriptions of a literacy paradise, with every component being mentioned by at least two organizations.

FOLDED AFFILIATION MAP

This is a weighted and folded version of the bimodal map on the previous page. What this map shows is the strength of connection between organizations based on shared components of a literacy paradise.

To create this map, we first assigned weights (1, 2, and 3 points) to the top three literacy paradise components each organization mentioned the most in their responses. We used these weights as an indicator of importance of the components to the organization. This gave us a bimodal matrix similar to the one used to construct the map on the previous page. We then did a process called "folding" in UCINET to collapse this weighted matrix into the one-mode network graph pictured here. In this map we are left with one type of element: organizations (red circles).

Interpreting this map: The numbers represent the strength of connections between organizations based on their top three components of a literacy paradise. For example, a 2.0 indicates that the organizations shared either two marginal goals (measured with 1 point each) or one fairly important component (measured with 2 points). Organizations in this map are directly connected to other organizations that shared the same high-importance (as measured above) components of a literacy paradise. The thickness of the line represents the strength of organizations' connection around these shared components. Thicker lines represent stronger connection, and thinner lines represent weaker - but still meaningful - connection.



Key Takeaway: Every organization is connected to at least three other organizations based on shared high-importance components of a literacy paradise. Some of these organizations are already working together, while others are not. Connections between organizations in this map could be leveraged into partnerships around shared visions of a literacy paradise.

OVERLAP BETWEEN ORGANIZATIONS & 3Rs VISION

We compared organizations' components of a thriving literacy ecosystem to the goals of the 3Rs Initiative.

In 2020, 3R's Initiative project staff and community stakeholders were interviewed to develop a vision of what it means to "be 3Rs". They were asked, "What would it look like Allegheny County to be a place where children, particularly Black children, thrived in literacy and beyond?" The result was a definition of what it means to "be 3Rs", with four broad themes and 18 subcomponents (see below). In this section, we compared this definition with organizational components of a literacy paradise to see how much our visions overlapped.

What it means to be 3Rs:



Embracing Literacy

Adults are always engaging children in literacy experiences

- Literacy includes conversations, writing, print, books, storytelling.
- We feel joy in reading together often.
- Children see adults loving literacy.
- Teachers know and intentionally teach to child's reading level.
- Literacy is our goal, not only higher standardized test scores.
- Teachers have sustained professional development opportunities and sufficient planning time for literacy.



Loving Black Children

Adults see strengths in Black children and families and love them like their own

- Celebrate Black children's autonomy rather than compliance (stop policing Black children's behavior).
- Advocate for Black children and against all racial injustice.
- Know that every family is literate in their own way.
- Honor Black culture and communities.
- Teachers act on the knowledge that Black families are assets to children's development.
- Maintain high expectations.



Prioritizing High-Quality Racially Affirming Books

Our community is full of adults who are effectively using books and materials that affirm Black culture

- These books are:
 - Mirrors and windows.
 - Show Black characters with agency.
 - Show Black children that books can help them reach their dreams.

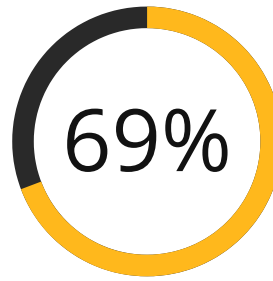


Working Together

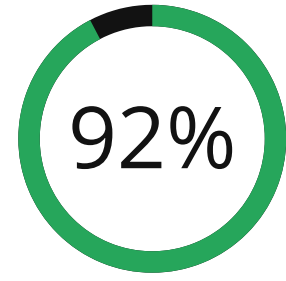
Adults and organizations work together so everyone has the support and resources they need and can align their efforts

- Teachers and families have strong relationships and view each other as trusted partners.
- And schools, libraries, and organizations need to align efforts.
- Shared decision-making for creating projects, spaces, materials to reflect the community and with everyone's voice welcome at the table.

Here we measured how many of the 26 components of a Literacy Paradise outlined by organizations fall within one of the four domains or eighteen subcomponents of the 3Rs definition.



18 (69%) of the 26 Literacy Paradise components explicitly overlap with the 3Rs definition.



Of the 12 components of a Literacy Paradise mentioned by more than half of the organizations, 11 (92%) directly align with the 3Rs definition.

Overlapping components

- Multi-level systems approaches*
- Supporting families' literacies*
- Literacy continuity across community*
- Valuing community voice and power*
- Equity and social justice efforts*
- Invest in people*
- Reflective learning communities*
- Rethinking school systems*
- Literacy supports in schools
- Children are valued as agents
- Meeting academic benchmarks
- Expansive culture of literacy*
- High-quality, culturally relevant books*
- Responsive and affirming literacy practices*
- Joy in reading
- Research-based programming
- Asset-based approaches

*denotes component mentioned by more than half of participants organizations

Non-overlapping components

- Hands-on learning (6)
- Food and transportation (5)
- Public health supports (5)
- Internet device and access (5)
- Economic equity in literacy (3)
- Smart literacy policy (3)
- Technology that has educational goals (2)
- Improved online learning (2)

Why the non-overlap?

Components in blue exist at the systems-level, which is beyond the current scope of the 3Rs but still critical points we continue to think about. The three remaining components are also not currently part of the 3Rs definition, but they provide interesting considerations for us to think about as we develop 3Rs interventions. In particular, although online learning and technology were only mentioned by two organizations, given the last year of online learning during covid-19, these seem especially important to consider moving forward.

Key Takeaway: There is substantial overlap (69%) between the 3Rs goals and organizations' description of a literacy paradise. This is especially true for frequently-mentioned components of a literacy paradise, 92% of which overlap with 3Rs goals.

Mapping A PATH FORWARD

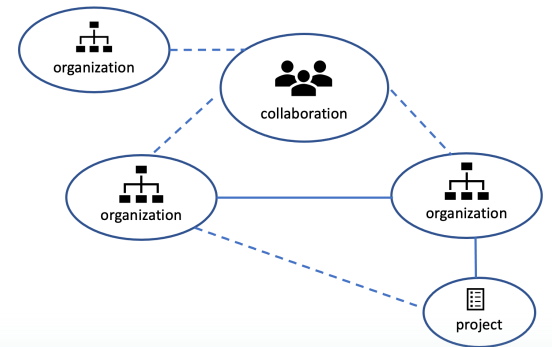
What We Did

Expanded and reorganized the original map of connections between organizations into three layers (direct support, cross-organization collaborations, and non-literacy overhead organizations).

What We Found

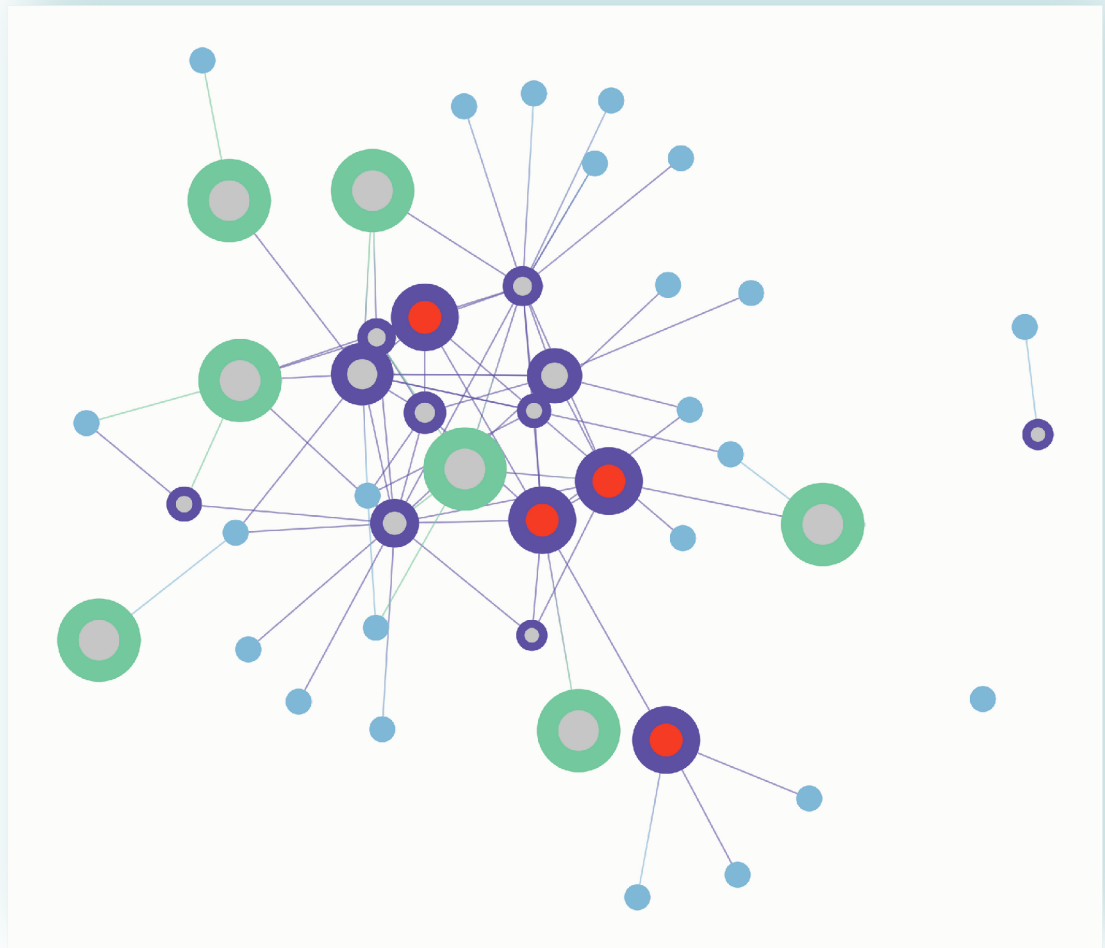
The 3Rs Community Strand fits into the cross-organization collaboration level. Additionally, there is currently no literacy ecosystem manager coordinating all literacy efforts in the county.

One of the key takeaways we learned through the mapping process is that the literacy ecosystem is a complex landscape! Originally we intended to capture the relationships between organizations (solid path in picture on right), but we soon learned that sometimes organizations are connected by smaller projects or through larger multi-organization collaborations (dashed paths). Thus, as a final step in our project we extended our original maps to include these connections and get a more nuanced view of the organizational landscape.







The Process

To do this, we first put nine of the organizations that participated in this project into the map as purple circles with grey centers: these are organizations that are either explicitly literacy-focused or have a core literacy component to their services and programming. We then re-classified two of our original participants as programs (blue circles) associated with larger non-literacy organizations (green circles). Finally, we added in purple circles with red centers to represent cross-organization collaborations happening across the region. These are literacy efforts where people from different organizations and programs meet regularly to address specific issues or goals.

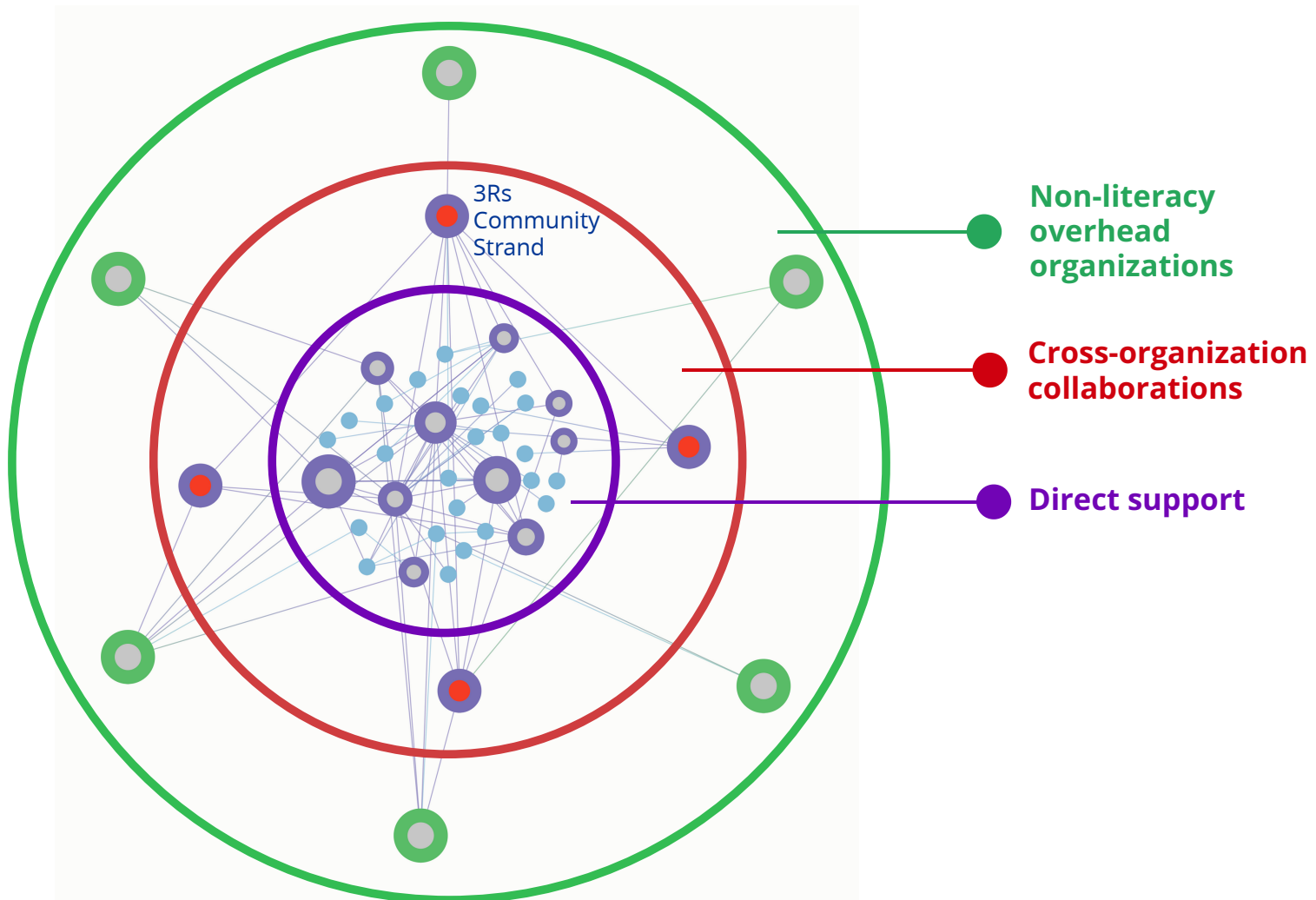


Legend

-  non-literacy organization
-  collaboration of literacy organizations and/or programs
-  literacy or literacy-focused organization
-  literacy program associated with a purple or green organization

Exploring the New Ecosystem

In this second step we took all of the same elements from the previous map and pinned them in three levels. The inner circle (purple) consists of organizations and programs that directly support children and family's literacy development. The next layer (red) encompasses cross-organization collaboration efforts happening in the county. These collaborations are intended to impact program and service delivery, but they do not themselves (as collaborations) work directly with children and families. The outer circle (green) encompasses all of the non-literacy organizations that either oversee or coordinate programs or collaborations in the inner red and purple circles. These organizations include educational nonprofits, university centers, foundations, government agencies, and hospitals.

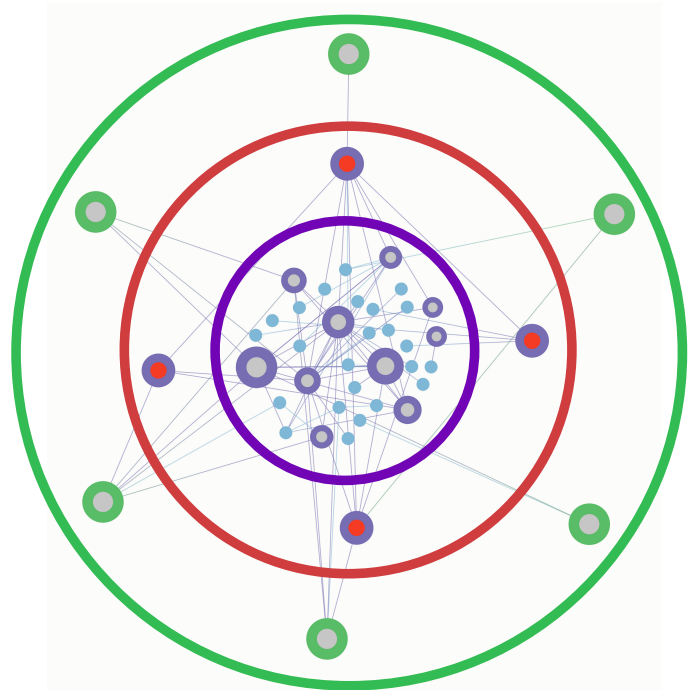


Finding Our Niche: 3Rs Community Strand

Through the process of reorganizing the ecosystem, we learned that we, the ***3Rs Community Strand***, fit into the red layer of the ecosystem. We do not work directly with children and families, but we do aim to collaborate with other agencies who operate in direct support roles. **Our unique niche in this space is to support organizations and programs with effective integration of knowledge, skills, and beliefs related to racial equity and relationships in children's literacy development** - something not currently being done by any of the organizations or collaborations in the ecosystem. Knowing our niche in the ecosystem helps us more effectively design collaborative efforts and recruit participation from organizations in each layer of the map.

Ecosystem Manager Wanted ?

When we look at this new map, we see that there are no organizations in the outer green circle connected to all organizations, programs, and collaborations in the inner circles. It may be the case that the county would benefit from a literacy "ecosystem manager" in this space. The idea of adaptive ecosystem management comes from Akiva et al. (in press). In the case of a literacy ecosystem, the manager would be an organization or group that organizes and coordinates literacy efforts in the inner red and purple layers in order to streamline services and maximize or leverage cross-organizational efforts. Managers in this sense are different from traditional business managers; they do not direct the ecosystem but rather act as a facilitator in the creation and defining of a common goal or set of goals related to children's literacy development and support coordinated efforts amongst organizations to reach the goal(s). The adaptive aspect comes from being able and ready to switch modalities of engagement and redefine collective goals as the ecosystem evolves. In this way, a manager could be a collection of pre-existing organizations and programs or a new third-party organization that works to leverage existing efforts to more effectively reach common goals across the region. To this end, the other maps included in this report would assist an ecosystem manager by illuminating current collaboration efforts, overlapping service areas, and common visions across organizations.



Examples of "ecosystem managers" in other literacy and educational systems include:

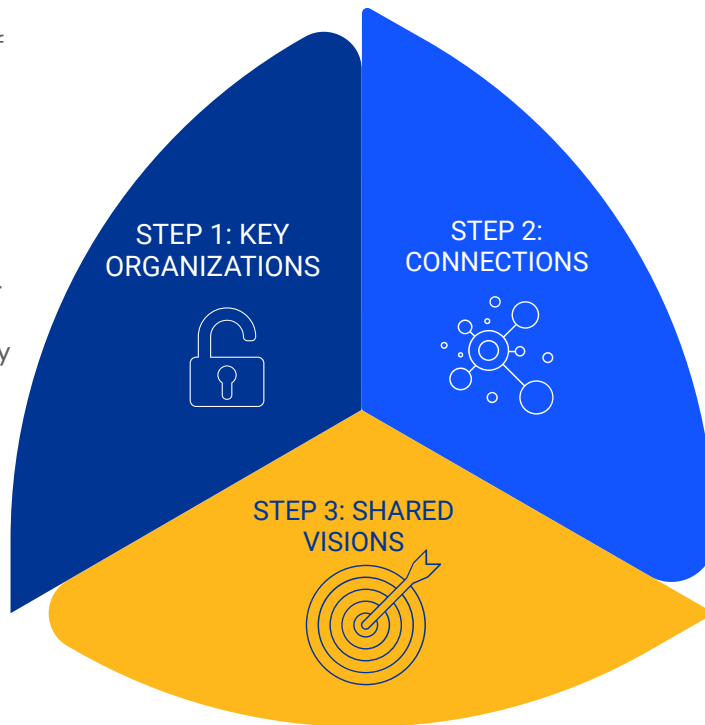


Do you know of other ecosystem managers doing great work ?

We'd love to hear about them! Send us an email:
tps.3rs.community@pitt.edu

KEY TAKEAWAYS & NEXT STEPS

Step 1: We found nine types of literacy organizations in the region serving twelve general functions, nine of which went above and beyond literacy and related to overall community well-being. The next step is to identify and engage with additional organizations in our ecosystem within each archetype that support literacy development.



Step 2: We found a highly connected organizational network based on resource exchange, creating connections, and co-creating resources. We also found significant overlap in terms of geographical regions served, with many of the neighborhoods and districts with greater numbers of organizations working in them having lower reading proficiency rates. It is important to note that these maps only show an association between reading scores and organizational reach and are not causal.

Step 3: We found significant overlap between organizations' and the 3R's visions of a literacy paradise. We see opportunity here to engage organizations in collaborations based on this overlap. Those working in the same neighborhoods or districts might consider collaboratively addressing common components of a literacy paradise in those spaces through exchanging or co-creating resources, or creating connections between additional key actors in the literacy ecosystem. Additionally, organizations that significantly overlap in terms of shared components might consider collaborating around those goals across the county.

What are next steps for 3Rs Community Strand?

Given the substantial overlap between organizations' vision of a literacy paradise and 3Rs goals, **we see immediate opportunity for partnering with these organizations and working towards a thriving literacy ecosystem.** Additionally, we:

1. Identified a need for additional clarification around social justice in organizations and
2. Found our niche as providing a collaborative space to build organizational competencies around racial equity (one aspect of social justice) in children's literacy.

Thus, the next step for the 3Rs Community Strand is to facilitate a community of practice for organizations to think through how we can collectively strive towards a greater focus on the integration of reading, racial equity, and relationships in Allegheny County's literacy ecosystem.

What We Learned

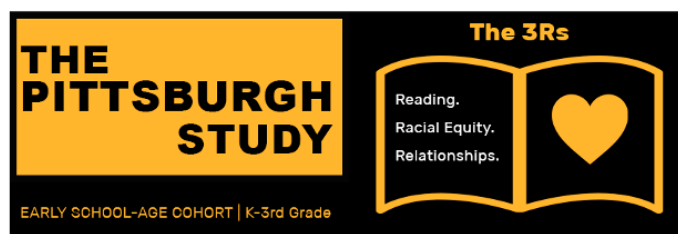
Allegheny County has a connected group of literacy organizations serving a wide variety of community needs. These organizations are connected through partnerships, locations served, and in their visions for a thriving literacy ecosystem. Although about half of the organizations talked about equity and social justice, we still think there is an important role for the 3Rs in helping organizations focus more explicitly on racial equity in literacy.

What We Will Do

Lack of specificity around social justice and inclusion language suggests organizations need more learning here to have more nuanced language and clarity around exactly what the issues are and what approaches might make the most sense for them to address these issues. Further, given that organizations are already highly connected, we can leverage those connections by forming a learning community. To this end, the 3Rs Community Strand will facilitate a yearlong community of practice from 2021-2022 for organizations designed to grapple with what the issues are around racial equity in literacy in Allegheny County and how to best address them.

Key Takeaway: The Value of the Process

As part of a community-engaged study, it was important for us to get to know the organizations in the region that have been engaged in supporting children's literacy development for many (some over a hundred) years. The process of mapping the literacy ecosystem allowed us to learn more intentionally about the type of organizations that are here, the work that they do, and what their dreams and hopes are for their community. It helped us identify common ground while actively building relationships. In short, **the very act of mapping the ecosystem helps to strengthen the ecosystem** by building relationships with the communities with whom we are engaged. The value of this process cannot be overstated as any future work will depend on the strength and synergy of community relationships built today.





STAY CONNECTED WITH THE 3RS

For more on The Pittsburgh Study, visit:

<https://thepittsburghstudy.org>

For more on the 3Rs Initiative visit:

<https://www.oed.pitt.edu/programs-services/pittsburgh-study-early-school-age-cohort>

✉ tps.3rs@pitt.edu

For more on the Community Strand visit:

<https://www.oed.pitt.edu/programs-services/pittsburgh-study-early-school-age-cohort/3rs-community>

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Thank You!

UPMC Children's Hospital of Pittsburgh Foundation
University of Pittsburgh Department of Pediatrics
The Grable Foundation
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The Heinz Endowments
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University of Pittsburgh Office of Child Development
The Pittsburgh Study
3R's Initiative Staff and Community Champions

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which made this work possible.

RESOURCES FOR ECOSYSTEM MAPPING

[Identifying and supporting productive STEM programs in out-of-school settings](#) [The National Academies Press; downloadable PDF]

[Kumu.io: Mapping Tools](#) [Stakeholder and systems mapping platform]

[Local Learning Ecosystems: Emerging Models](#) [Wise report]

[Principles for Building a Learning Ecosystem – Lessons Learned from Tucson, Arizona](#) [Digital Promise]

[What if every city had a learning ecosystem?](#) [Remake Learning blog]

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Appendix: Literacy Paradise Definitions

These are the full definitions and descriptions of the codes used in the Literacy Paradise section (Step 3). The "# Orgs" indicates the number of organizations that explicitly mentioned this component as part of a literacy paradise. Cohen's kappa for intercoder reliability for these codes are indicated in parenthesis..

Code	# Orgs	Definition	Description/Vision in Literacy Paradise
Systems-level (1.00)			
Food and transportation	5	Thinking about the intersection of literacy, food and transportation	An abundance of food and travel options to address hunger and transportation barriers and to support children and families' access to literacy resources.
Public health supports	5	Advocate for public health supports including maternal supports, stress and mental health	Preventing, actively addressing, or providing supports to counteract stressors (both everyday and major ones, such as giving birth) that impact mental and physical health.
Internet/device access	5	Work towards everyone having access to internet access/devices	Internet access includes not only increasing physical access to technology and the internet, but also increasing digital literacy skills to maximize the impact of this access.
Economic equity in literacy	3	Advocating for economic equity in literacy and beyond	Widespread and consistent efforts to address (and reverse) poverty and the impact of poverty and access to resources on children's literacy development and overall well-being.
Smart literacy policy	3	Advocating for smart literacy policy	Widespread proactive advocacy groups and efforts advocating on behalf of children and families that aim at "smart" literacy policies; i.e., literacy policies that treat reading as fundamental to health and that maximize access to high-quality literacy experiences and resources for all.
Community-level (1.00)			
Multi-level systems approaches	11	Designing cohesive and communicative multi-level systems approaches to literacy development across the region	This involves large-scale collaboration and coordination (partnerships) across and within organizations and communities to meet the literacy needs of everyone and expanding/adapting funding opportunities to make this collaboration and coordination possible. This also includes the effective internal and external communication amongst organizations and communities needed to make collaboration and coordination possible.
Supporting families' literacies	11	Supporting families and their literacies	This means first and foremost recognizing and honoring that all families have their own literacies or ways of communicating and engaging with reading, storytelling, etc. and that those literacies should be valued and leveraged as much as possible. This also includes efforts to support adult literacy so that they can help their children; e.g., providing in-home supports or the tools needed for families to be able to locate resources (literacy or otherwise) on their own. Lastly, this includes making reading and literacy fun, engaging, and accessible for children and families
Literacy continuity across community	10	Investing in and promoting literacy continuously throughout the community	This involves creating welcoming literacy spaces and learning experiences for children and adults across the region, in addition to creating continuity of those experiences across contexts (i.e., literacy experiences/spaces are not just in isolated areas but are spread out across the entire community). This also includes promoting or encouraging the use of these spaces and experiences for children and adults of all ages.
Valuing community voice and power	8	Building relationships with, honoring, and valuing community voices and power	This involves going to where the people are, seeing them (people and communities) as agents with the power to determine their own values and paths; putting in the effort to build reciprocal, honest, and respectful relationships with people and communities; and supporting them in meeting their needs.
Equity and social justice efforts	6	Promoting diversity and fighting for equity and social justice in literacy and beyond	This is a combination of the "inclusiveness/diversity" and "social justice" codes from the Community Roles codes (see page11). Addressing diversity and social justice does not mean just "out there" in the world, but also the internal social-emotional work that is needed to effectively promote diversity and social justice.
Reflective learning communities	6	Create reflective learning communities and neighborhoods where lifelong learning is valued and encouraged	Reflective here means both self-reflection as a means to learn and grow, but also reflecting on others' (people, organizations, places) values and ideas to learn from them as well.
Invest in people	6	Invest in well-trained, highly paid educators and trainers that have a heart for doing this work	Invest in people by improving pay and working conditions for early educators, paying people well for the work they do or materials they develop, and attracting more and highly qualified people to do this work who care deeply about this work.

Literacy Paradise Definitions (cont.)

Code	# Orgs	Definition	Description/Vision in Literacy Paradise
School-level (.94)			
Rethinking school systems	7	Deconstruct and redesign school districts and systems so they meet children and families at their needs, particularly Black children and families	This involves deconstructing, rethinking, reconstructing and redesigning every level of schooling - from individual schools to school districts up to school systems in general - and the curriculum by making schools more flexible, easy to work with, and responsive to children and family needs, especially the needs of Black children and children/families of color.
Literacy supports in school	3	Increasing literacy supports in schools	For example, improving school libraries or additional literacy instruction support.
Social-emotional supports in schools	2	Increasing social-emotional supports	Providing high-quality social-emotional supports in schools to improve self-regulation and ensure all students are ready to learn
Child-level (.94)			
Children are valued agents	2	Children are valued as agents, are met at their interests and dreams, and literacy is viewed as a vehicle for expressing agency and dreams	This includes viewing children as agents with assets and dreams, and building relationships with them so that they are able to use literacy to create themselves and their future.
Meeting academic benchmarks	2	Ensuring students enroll in and arrive ready for kindergarten and continue to meet academic benchmarks	Internet access includes not only increasing physical access to technology and the internet, but also increasing digital literacy skills to maximize the impact of this access.
Books, Literacy Pedagogies, and Practices (.90)			
High-quality, culturally relevant books	7	Everywhere are high-quality, developmentally appropriate, culturally relevant books that speak to children's interests and dreams	Books, books, and more books! Books everywhere! But these books are also high-quality and age-appropriate books that are meaningful for children and families, have a diversity of authors and characters, and speak to issues of race and are racially affirming.
Hands-on learning	6	Literacy learning experiences and tools are innovative, hands-on, project-based and span multiple content areas	This is about the learning tools being hands-on, project-based, and innovative (meaning novel and/or constantly being tested and redesigned to maximize impact).
Responsive and affirming literacy practices	6	Literacy learning experiences and tools are individualized, responsive to and affirming of children's needs, cultures, and home lives	This is about ensuring literacy experiences and activities are individually designed to meet children and families where they are, and are responsive to their needs and identities (which includes their racial identities, family identities, cultural identities, local identities, etc.).
Expansive culture of literacy	6	Embracing an expansive culture of literacy that values multiple dimensions and expressions of literacy beyond the written word and in which literacy is valued in itself and not for achievement purposes only	This is similar to "Expanding culture of literacy" in Community Roles codes (see page 11). It is also more about the culture around literacy vs. actual literacy experiences/tools or books (which are covered in above codes).
Joy in reading	5	Cultivating and embracing joy in reading for children and adults	This is similar to responsive and affirming practices in that you are seeing what kids can do and the assets they bring (vs. having a deficit mindset) and encouraging them (vs. criticizing them), but this is more of a cultural shift towards how we see children vs. designing literacy practices (which is covered above).
Research-based programming	2	Literacy programming is based on current research	This research might be academic or it might be organizations doing needs assessment or other studies to identify ways to improve programming and services.
Improved online learning	2	Improving online literacy learning environments	Creating robust and engaging online literacy experiences.
Technology with educational goals	2	Using technology that also has educational goals	A thriving literacy ecosystem does not mean giving up technology, it just means incorporating more educational goals into the technology that children currently use
Asset-based approaches	2	Adults see and value the assets children bring to literacy experiences	This is similar to responsive and affirming practices in that you are seeing what kids can do and the assets they bring (vs. having a deficit mindset) and encouraging them (vs. criticizing them), but this is more of a cultural shift towards how we see children vs. designing literacy practices (which is covered above).

