

The ARSI Resource Collaborative Coordinators, District Liaisons, and Regional Teacher Partners: Support Structures for Teacher Leadership

The mission of the Appalachian Rural Systemic Initiative (ARSI) was to build a long-term capacity that would improve the educational structures of the rural communities it served. ARSI sought to do more than provide direct services to districts, such as a short-term project could accomplish. Rather, ARSI aimed to build the foundations for an improvement infrastructure for mathematics and science education in Appalachia. The most critical piece of this foundation was creating a network of people – what we think of as an improvement community – who together could learn about improving mathematics and science and support each other in their local endeavors.

The major strategy ARSI used to create improvement communities across Appalachia was to identify, embrace and educate individual teachers, who became ARSI Teacher Partners in the target districts. Rural communities, especially those in the Appalachian mountains and “hollers,” are close-knit, understandably suspicious of outsiders coming in to “make things better.” Therefore, the rationale was that local, or indigenous, leadership for improvement would be far more effective and lasting than imported expertise. The key then to local improvement was local leadership.

ARSI also recognized that teacher leadership did not simply occur through individual anointment. Rather, teacher leadership developed most effectively over time within a broad social and professional context, where long-term supports and resources for leading teachers were embedded and connected. Based on this thinking ARSI actively sought structures and strategies that would serve the growth of indigenous teacher leadership both individually and collectively. Supportive contexts for teacher leadership were deliberately created at the university, school district, and teacher-leader levels of the system to both serve as mechanisms or structures for supporting the broader, overall ARSI improvement community, as well as to nurture the individual teacher leaders and their district level improvement efforts.

This report provides snapshots of three important support structures or roles designed to support the Teacher Partners. First, we describe the ARSI Resource Collaborative Coordinators (RCCs); second, the ARSI District Liaisons (DLs); and finally, the ARSI Regional Teacher Partners (RTPs). We discuss how these roles contributed to leadership at the regional and school system levels, supporting, connecting and developing the Teacher Partners. And we also discuss how the

people who served in these roles developed their own knowledge, skills, and ability to provide “leadership for leadership.”

The ARSI Regional Collaboratives, the Resource Collaborative Coordinators, and the Regional Collaborative Meetings

The Five Regional Collaboratives

Early in the life of the initiative, ARSI realized that it needed to decentralize the project across the states and regions it aimed to serve. Hence, it created regional collaboratives, or collections of districts that met the criteria for receiving the services of ARSI. Each of the Collaboratives was deliberately housed in a university. The rationale for the university home was that it would promote both better connections between the work of the project and higher education, and better access to resources available only in the university setting.

There were five RSI Collaboratives: Tennessee, housed at the University of Tennessee in Knoxville; Ohio, housed at Ohio University; West Virginia, housed at Marshall University; Virginia, housed at the University of Virginia at Wise; and Kentucky, housed at the University of Kentucky. The Tennessee and the Virginia collaboratives also included some districts from Kentucky, due to the large number of Kentucky districts that qualified. The Tennessee collaborative included the North Carolina districts.

The regional collaboratives became the professional base of support for the ARSI Teacher Partners, serving as the location for their ongoing professional development, as well as the source of encouragement for their work in their local districts. The Collaboratives served as important “nodes,” central to the structure and dynamics of the ARSI network, and critical to the development of the ARSI improvement community.

The Resource Collaborative Coordinators

Each Collaborative had a leader, the Resource Collaborative Coordinator, or RCC. These individuals came from a variety of backgrounds, but all of them had experience in and a commitment to education. Their primary role was to search for appropriate resources for the TPs, support their growth through providing professional development, and provide input and ideas for structures and processes that would enable the TPs to work successfully with their home schools and districts. As one RCC explained, “We have been the glue that holds

ARSI together. Teacher Partners are out there in the trenches doing the work, and we are here to help them in any way that we can.”¹

The RCCs were critical in “combating the isolation” of Teacher Partners, providing them, first and foremost, with a common context for learning opportunities and relationship-building. They were instrumental in connecting the TPs to school and district administrators. They “kept constant pressure” on districts to keep math and science and the resources needed for their improvement at the forefront.

The ARSI TPs reported that it was critical to their growth and development as leaders in their districts to have access to materials, resources, and ideas the regional collaboratives and the Coordinators provided. By virtue of being situated at a university, the RCCs could tap a broad set of inputs that were unavailable in the individual small, rural districts ARSI TPs served. In some cases what they were able to offer was simply the opportunity for TPs and their district leaders to “sit at the table,” shoulder to shoulder with the university on issues related to math and science education in the state.

The RCCs also provided an important window to the outside, in particular to information about the national reform agenda. One RCC described it this way:

I think the Resource Coordinators were the tie-in between the national perspective, the Appalachian perspective, the state perspective, and the district perspective. They also brought the higher education piece into it. By being located at the college or university, we have been able to build a stronger relationship between the university and the district.

RCCs thought of themselves as the public face of ARSI. Being from the region, they came to school districts with a certain familiarity that gave them credibility – even if the university they came from was viewed with some skepticism. One RCC commented:

The RCCs were a presence, an advocate position. RCCs were someone who could be talked to, who was a friend, somebody that really had an invested interest in the schools in the area. It was a face to a project and it was a voice. It was a presence that doesn't happen when something is administered from afar, or from an ivory tower position at a university, where people don't feel comfortable. It

¹ We taped and transcribed interviews from the ARSI educational leaders and other interviewees presented in this report. The quotes we used are not always literal, direct quotes. Rather, we have at times used our best judgment to edit them lightly to either make them more readable, or to convey more accurately the intention of the remarks.

was having a conversation, a true conversation, rather than being told to do something.

Thus RCCs, by virtue of their roots in the region they served, were able to build upon existing relationships to create new connections within their region to keep ARSI work moving forward, even in the face of dwindling resources. One RCC explained:

As a RCC, I have been able to keep the ARSI project going. We rely so much on personal relationships and networks that we have formed, which is why already having established a relationship with many of these districts, it has kept them involved. The resources have been reduced each year. Because of those relationships, I have been able to keep the teacher partners involved, and keep the District Liaisons promoting what we have tried to accomplish. We have continued to build on prior relationships. I have been able to continue the work without sliding back, because of the relationships that were established.

The RCC position was very effective in sustaining the ARSI network. Theirs was a unique perspective, one which was particularly effective in contributing to growth of the network as an improvement community. The RCCs faced both inward toward the ARSI network, and outward, toward the larger state and national science and mathematics scene. As such they worked internally, within the network, as indigenous, capable and trusted leaders to the TPs and their districts. And they also worked externally, representing ARSI to the outside world, as well as bringing back home information and resources. The net result was that the RCC role served as a critical conduit of ideas and knowledge throughout the ARSI community.

Regional Collaborative Meetings

The monthly meetings of the Collaboratives provided opportunities for professional development, networking, sharing, and friendship among the ARSI Teacher Partners. The content of the meetings evolved to reflect the network's growing needs and interests.

Initially, meeting agendas were determined by the data from the schools' Program Improvement Review process. Using an established protocol, a team of teachers and administrators from outside an ARSI district audited the math and science programs in a school, reporting their findings to the administration and leadership of the school. The findings also provided the basis for the Collaborative meetings to help TPs provide the most appropriate support for the schools as they strived to address the issues raised by the review. Thus the Program Improvement Review became an important tool not only for creating

awareness and catalyzing change within individual schools, but also for raising the knowledge level of the entire TP field.

Later, the meetings generally focused on some aspect of leadership, content, or pedagogy. Content sessions often also included issues related to assessment, or examining student work. In addition, meeting agendas were based on concerns and issues raised by the TPs' work in their schools and districts, or new concepts and strategies they collectively were interested in learning. Often, outside consultants were brought in to offer ideas and resources not locally available.

Often the Collaboratives, in addition to holding regular meetings, created or leveraged other special events and opportunities to maximize their work. For example, in Kentucky, several TPs along with their RCC traveled to workshops and institutes across the country to enhance their own knowledge about math and science education improvement. They attended events, such as the Exploratorium's Institute for Inquiry, and Nancy Love's "Using Data and Getting Results" workshops. Finally, toward the end of the 10 years of ARSI funding, many of the Collaborative meetings focused on providing Teacher Partners with strategies for helping schools and districts conduct long-term planning for continued improvement.

Regional Teacher Partners

In addition to the Resource Collaborative Coordinators, ARSI provided another level of support for capacity development in Kentucky. The Kentucky RCC, Kim Zeidler, wanted the opportunity to expand upon the ARSI model. She hoped to use the same structures and processes for improvement that she helped develop with the TPs in a regional context. She, in collaboration with members of the ARSI leadership team, wrote and received a grant to fund a group of six ARSI Regional Teacher Partners (RTPs).

Their role was bifurcated. First, they provided services to multiple schools or districts in designated regions of the state; and second, they provided leadership, usually in the form of professional development, for the Kentucky Collaborative. The RTPs were typically Teacher Partners who were interested in further developing their leadership skills and knowledge, and who wanted to work full time with schools and districts across the state, not just their own.

For a school or district to qualify for the services of a RTP, it had to agree to release and pay for all of its math and science teachers for one day a month, as well as for three days during the summer. These grade-level groups became known as the Teacher Cadres. The district also had to agree to convene and maintain a Leadership Team, consisting of the RTP, a school principal, a district

administrator, two classroom teachers, a parent, and a special education staff member. Facilitated by the RTP, Leadership Teams met monthly to discuss the work and progress being made by the grade level Teacher Cadres, and any other issues related to the district's math and science improvement efforts.

For a detailed description of one example of Regional Teacher Partners' contributions to the capacity for improvement in Lincoln County, Kentucky, see "[A Portrait of Two Regional Teacher Partners in Lincoln County, Kentucky.](#)"

The Benefits of the Regional Supports to Capacity Building

Through the ARSI support mechanisms – the Regional Collaborative meetings, the Coordinators' role, and the Regional Teacher Partners – the capacity of the Teacher Partners to engage themselves and others in improvement work in their schools and districts developed greatly over time. ARSI gave the TPs a professional home away from home. In this sense, the ARSI network served as a vision and a model for the improvement communities TPs aimed to establish within their home districts.

In fact the majority of TPs were able to parlay what they learned from ARSI into processes and structures in their home districts that furthered local improvements in a myriad of different ways. They became outspoken advocates for standards-based teaching and curriculum. They worked with classroom teachers to address state and national standards, and to align their local curricula. They helped write grant proposals and taught other teachers and administrators how to apply for grants successfully. Many TPs also became leaders on other NSF-funded work in their area. For example, in West Virginia TPs were involved in both the CRSI (Coalfield Rural Systemic Initiative) and MERIT (Mathematics Education Reform Initiative for Teachers) projects, and Virginia was involved in CRSI as well. Or as another example, in Tennessee one TP successfully organized a consortium of districts to receive NSF funding for a pilot elementary science program. Another example is that, through state and university support, the ARSI Collaboratives at Ohio University and University of Kentucky have evolved into centers for mathematics and science education.

The RCCs felt the Collaboratives were responsible for creating a generation of leaders for improvement in Appalachia. As one explained:

If you ask me what our biggest accomplishment is, I would say that we have built the leadership capacity of people. We have the human resource. TPs have moved into new positions, and they have a greater depth of understanding of standards-based curriculum and instruction, assessment, etc. That is one of the legacies of ARSI, the human capacity, or the leadership capacity of individuals. And they

were already good people. They already had the ability - ARSI provided them the opportunity. I think that is one of the plusses from the ARSI model, that it has involved people at different levels.

RCCs also reported that historically, Appalachian school districts had only recognized and sought expertise from sources outside the system. Over time, as TPs became capable, their own districts acknowledged their “internal experts,” and increasingly called upon them when they need help.

An added benefit of the set of regional support mechanisms ARSI designed and implemented to promote leadership capacity was the growth and development of the RCCs. They found that as they supported the leadership development of Teacher Partners, they themselves grew professionally, becoming stronger and more knowledgeable leaders.

For example, they grew in their knowledge of their respective state infrastructures and policy contexts. Several of the RCCs became involved in other improvement projects in their region, and as we have discussed, in the case of Kentucky, secured additional funding to expand on the ARSI model and create the additional structure of the Regional Teacher Partner. In Virginia, the RCC created a consortium of leaders of NSF-funded and other projects to coordinate and share lessons learned called WISE: Working to Improve Science Education. With ARSI’s encouragement three of the five resource collaborative coordinators also have worked toward their PhD., with one having completed the program.

District Level Support Structures for Leadership: The ARSI District Liaisons

ARSI realized that the regional supports we have just described were all necessary, but still not sufficient for creating a supportive context for developing local leadership capacity. The project realized that an advocate at the district level was also essential.

Thus another critical component of ARSI work in the districts came in the form of a designated district representative, called the District Liaison (DL). The District Liaison role was created primarily to provide administrative support for the ARSI TPs, and to serve as the district-level advocate for math and science.

These individuals were often district curriculum or professional development coordinators or directors, assistant superintendents for curriculum or teaching, or district math or science specialists or supervisors. In the best-case scenarios, DLs were supportive and played a key role in the ARSI improvement work.

When they were effective, DLs provided important professional and personal support to Teacher Partners, allowing them to accomplish more with fewer constraints.

Not only did the District Liaisons benefit the ARSI TPs, but the DLs also often benefited from their association with ARSI. In surveys² and interviews, DLs reported that the ARSI TPs they worked with, and the ARSI events they attended, taught them about the value of the classroom-based professional development that the TPs provided. One remarked, “If you want change, true professional development has to take place in the classroom. Somebody has to be available as the teacher needs help.” They also reported that they themselves grew in their knowledge and ability to lead improvements in science and math education. And, importantly, ARSI provided some DLs with a community of like-minded professionals that helped them persevere in their advocacy work, as this DL described in a phone interview:

Educational leadership is a lonely position. In many areas, I was the only one. I had no-one to talk to. The benefit of ARSI was you had people to talk to, you could contact them or email no matter where you are. You build the network as a survival tool. With all the accountability pressure, you have to know people who have done or can do or have been through it to ask how did you do it, how did you get through it. The ARSI friendships that were built and professional contacts were invaluable.

We asked District Liaisons to describe what they believed the “legacy” of ARSI was likely to be in their districts. Several commented about the increase in capacity in the district to improve math and science, or the increase in awareness of, and focus on, these subjects. One DL explained what ARSI would leave behind:

After more than 30 years in the public schools, I remain convinced that a positive vision of the future – for both teachers and students – is critical to the learner's sense of efficacy. Particularly in our region (and probably in others), we found ourselves lacking the expertise to make the necessary changes in our MST programs. We recognized the need for continuous improvement, but we didn't always know how to bring it to reality. The ARSI project helped us to develop a comprehensive structure for improvement, to build capacity for sustaining the improvement, and to believe that we were capable of serving our students with creative, effective, research-based curricula, assessment and instruction. Most of

² Inverness Research Associates administered a survey of ARSI District Liaisons (DLs) in June of 2005. Twenty-five surveys were returned for a response rate of 30%. The survey data report is available within the ARSI Evaluation Portfolio “[ARSI Teacher Partners And District Liaison Survey Data.](#)”

all, the project fed our passionate belief that our students want, need, and deserve "the best" when it comes to learning experiences. I will be ever thankful for the opportunity to have been a part of this significant work.

In summary the District Liaison provided the district support that enabled ARSI TPs to do their work. They served as an entry way to the district administration, they helped the TP negotiate the district culture, and they helped keep math and science improvement on the front burner of ARSI districts.

Concluding Thoughts

The leading edge of the ARSI effort to build the long-term capacity for continuous improvement in mathematics and science education in Appalachia was the development of teacher leadership. The ARSI Teacher Partners fulfilled their mandate very successfully over the decade-long effort. They embarked on myriad different pathways, depending on their own strengths and predilections, and the unique contextual features of the schools and districts in which they worked. And almost all made some headway in bringing math and science to the forefront in their local communities.

One of the major reasons for the Teacher Partners' effectiveness was the nature of the professional supports they received from ARSI. As we have mentioned, the ARSI leadership did not merely appoint TPs and then hope for the best. Instead, ARSI deliberately crafted a set of mutually reinforcing support structures that helped both create and sustain an improvement community. We would characterize these support structures as generative structures. ARSI designed them to be fluid and flexible, and to generate rather than constrain activity. They were designed to allow for a variety of individual responses, to be responsive to changes and challenges over time, and to expand, incorporating new people and ideas as they flowed into the ARSI community.

The regional collaboratives, the Coordinators, and the monthly meetings all served to educate the TPs. Through these regionally-based supports the TPs were introduced to the latest in math and science curriculum and assessment, to new content information, to leadership skills, and to a vast bank of tools and resources. At the same time the regional structures served as a professional, collegial venue where TPs could bring both their issues and their best thinking to the table. There they could talk and share, receive coaching and counseling, and most importantly, learn from one another. At the same time the ARSI District Liaisons served as a supportive structure from the district side of things. They bolstered the work of the TPs in their home communities by opening doors and smoothing the way in their districts. In partnership with the TPs, the District

Liaisons also contributed back to the larger ARSI community by sharing their particular district perspectives.

In summary, ARSI evolved over the ten years of work in Appalachia a multi-layered, mutually beneficial set of supports for the Teacher Partners. While these structures served the immediate goal of supporting the TPs, they also helped achieve the broader goal of bringing into existence a large improvement community focused on making mathematics and science education better throughout Appalachia.