Increasing Social Capital in Appalachia:

Developing an understanding of what conditions are necessary for student agency to have an impact on community vitality

Executive Summary

In the spring of 2017, Digital Promise, along with the Kauffman Foundation, sponsored a planning grant to research the nature of education innovation clusters (EICs). The research was aimed at addressing the goals and the mission of EICs and broaden the understanding of the nature of EdClusters. Specific systemic goals were identified up front,

- Nature and strength of the local EdCluster network
- EdCluster participants -- their affiliations, access, levels of participation, motivations, etc.
- Sustainability of your EdCluster
- Functioning, organization, governance of your EdCluster
- How decision making is conducted and consensus is reached within your EdCluster
- How work is approached, coordinated, or prioritized across your EdCluster
- Nature of communications within your EdCluster network
- How innovation is shared and diffused within your EdCluster network.

The planning grant allowed the EIC in the Kentucky Valley Education Cooperative (KVEC) to work with its staff and create a plan to evaluate the innovation models and the impact they have on increasing social capital. Moreover, KVEC pushed itself in the planning process to develop a deep understanding of what conditions are necessary for student agency to have an impact on vitality.

Introduction

Fifty-three years ago, President Lyndon B. Johnson famously declared war on poverty while visiting Kentucky. In his declaration, Johnson stated, "I have called for a national war on poverty. Our objective: total victory." Johnson's vision was clear at the time, if this was war then Appalachia was to be considered ground zero, home to the poorest of the poor the very face of rural poverty (CITATION). Some fifty years later, the results are mixed with communities still struggling toward prosperity.

The Appalachian region itself is home to over twenty five million people and covers parts of mostly mountainous areas of 13 states including Mississippi, Alabama, Pennsylvania, New York, Georgia, South Carolina, North Carolina, Tennessee, Virginia, Kentucky, Ohio, Maryland,

and the entire state of West Virginia (Hurst, 1992). Parts of Appalachia are characterized by the rugged topography that puts the region at a disadvantage because of the transportation and infrastructure problems that have developed (Hurst, 1992). Through most of the region of Appalachia, there is a barrage of issues ranging from inadequate jobs, services, transportation, education, and its isolation from growth centers (Tickamyer and Duncan, 1990). These factors are compounded in education and certainly have an impact on educational outcomes. By failing to account for the out-of-school class factors that affect student achievement reproduction of social inequality in the schools' education systems produce a systemic problem that has existed for years and even decades. Studying these out of school factors, James Coleman discovered that the relationships and networks between and among people that help guide behavior, norms, and values were contributing factors to social reproduction in the form of social capital (Coleman, 1988). His research, popularly known as the "Coleman Report," showed that once students' academic and family backgrounds were taken into consideration, the characteristics of schools accounted for very few variations in students' achievement. The social capital within the schools and whether students could benefit from their parents and communities all had greater impacts on learning (Coleman et al. 1966).

Coleman went on to define social capital as the "benefits that come from social organizations such as networking, societal norms, and a generalized trust, which lead to cooperation and progress" (Putnam, 1995). The Coleman Report began to establish that family background and socioeconomic conditions accounted for most of the achievement gap along socio economic populations (Rothstein, 2004; Jencks & Phillips, 1998; Lareau, 1987). Additionally, Rothstein's (2004) research concluded that within the school environment, schools contribute to up to one-third of a student's achievement and outcomes while family and community characteristics contribute two-thirds (Rothstein, 2004). This is especially true in Appalachia where generations of poverty have existed.

Yet despite all the challenges and struggles faced by Appalachians, there are sea beds of hope that may very well light the way for others to follow. Embedded in the eastern part of Kentucky is the Kentucky Valley Education Cooperative (KVEC) that has taken up the call to change the social capital for the region. KVEC realized early on that it should not only focus on the social

and economic divisions within the region but also battle the often incorrect and overgeneralizations about the region. To focus all its energy and solutions toward this, KVEC, developed a system of supports that are levered by the communities and involve a wide range of constituents. Throughout the process KVEC, looked for solutions that were developed internal to the region, ones that not only could have an impact but had the potential to scale across communities.

At the center of the KVEC's model is teaching, leadership, and learning. KVEC's goal is to create levers for all its resources that have the potential to create a lasting impact through education innovations. The efforts of KVEC have not remain unnoticed and recently the region was awarded the designation of being an Education Innovation Cluster or EIC.

Education Innovation Clusters

Education Innovation Clusters (EIC) are geographic concentrations of organizations, institutions, and thought leaders, working together to develop and nurture educational technologies and exceptional learning practices (South, 2014). Simply, the EICs represent the places, people, processes, and pedagogies where innovative teaching, learning, and leading can occur more easily (Bonsal, 2017).

In an initiative from the U.S. Department of Office of Educational Technology (OET), EICs are described as "forward-thinking regions where commercial, academic, and education partners have come together to form innovation clusters," focusing on a challenge that a region is suited to address and solve.

To be considered an education innovation cluster by the Department of Education, a region needs to build connections between its three key partners, with the following responsibilities:

- Educational partners (early learning providers, schools, libraries, community centers, afterschool programs, postsecondary education programs and institutions, and virtual learning) support the environment where emerging learning technologies can be piloted and new solutions developed with input from students and teachers.
- Research partners conduct advance the field of learning practices to advance the field of

- learning science. They are fully integrated with entrepreneurial partners for learning technology design, and linked closely with educational partners for data and outcomes to feed evaluations of new approaches.
- Commercial partners scale and market successful implementations, providing investment capital for acceleration of commercialization.

In August 2014, in Pittsburg, Digital Promise and the U.S. Department of Education hosted the first national gathering of EICs. During and since then, EICs have flourished in Chicago (LEAP Innovations), Kentucky Valley Educational Cooperative (Silicon Holler: Training Students for the New Economy Here in Appalachia), Rhode Island (EduvateRI), San Diego (Mobile Technology Learning Center), Tucson (Community Share), Boston (LearnLaunch + MAPLE), Nashville (Alignment Nashville), Baltimore (EdTech Maryland), New York City (iZone NYC), Pittsburgh (Remake Learning), and others. Each has its own character and trajectory, influenced by the local needs and goals of the partner organizations (Molnar, 2015).

EIC's become a solution for Innovation

EICs address the need to close achievement gaps within our country's economy, to increase our competitiveness in the global economy, and to drive overall economic growth in our regions. Creating these clusters require new types of partnerships which cross traditional lines (OET, 2014). This model is perhaps the clearest representation of how innovation can drive multisectors and merge education, the workforce, and the economy. John Fernandez, assistant secretary at the Economic Development Administration, stated the potential of EIC's this way, "Entrepreneurs and researchers and innovators want to be around each other. They want to feed off the shared creative energy. They want access to a shared talent pool. They want to build relationships. So, if a local community can plant that seed- if it's able to create the climate for innovation and build a critical mass- then private investment will follow. Innovation will follow. Jobs will follow."

In Kentucky, KVEC began the process of establishing an innovation cluster by creating a system of supports and approaches through their regional innovation labs. Figure 1 represents the program of supports that are spread throughout the KVEC region and into each community. Each program area promotes innovation and develops leadership models to have sustainability

moving forward. This conceptual framework from KVEC represents an integrated model focused on early childhood and early elementary learners and the support systems (both in and out of school) that are critical to enabling those learners achieve at high levels. The concepts were developed over time and through research practices that includes: (1) Developing effective elementary Principals and teachers with a specific focus on the elementary Principal as the lead learner, (2) Professional Action Networks (PANs) of practitioners focused on community engagement and balanced assessment of learning, (3) Social network Mapping Project to increase human capital investment in learning, (4) a concentrated community and caregiver training and engagement process, and (5) development of a digital School/Community Resource Matrix that services to firmly connect the school and the community to learning targets and focuses on matching need to available resources.

A cross-district Systems Improvement Framework driven by multi-direct dynamic engagement and catalytic transformation in teaching, leadership and learning.

*Port NOLLER, COS

- Proce learning formation
- Proceeding Community
- Visible Communit

Figure 1

Context for EIC in Kentucky

KVEC is an education cooperative in eastern Kentucky. The Kentucky Valley Educational Cooperative (KVEC) school districts are in some of the most distressed counties in the United States. The Census Bureau ranked the poorest counties in the nation, and four of the top five counties are KVEC-participating districts. The districts by rank are: 1. Owsley County, 2.

Breathitt County, 3. Lee County, and 5. Magoffin County. The poverty level for every county in the KVEC consortium exceeds the Kentucky and US poverty level average. According to the 2016-2017 Small Rural School Achievement Program listing by the United States Department of Education (DoED), all of the 21 school districts served by KVEC are classified as Rural Low Income Schools.

Despite the bleak statistics, public school systems in the Appalachian region of Kentucky are recognized as a national and international leader in rural education. The region has long been measured by the challenges that face its educational systems rather than by opportunities that exist. These opportunities include a unified consortium of school districts committed to putting students first, the willingness to share resources and strategies in a cross-district collaborative, the capacity to engage broad cross sections of the community in a systemic process for positive change, and the drive to recreate the landscape of rural public education.

KVEC was the first consortium to be awarded both the Investing in Innovation (I3) and the Race to the Top-District (RTT-D) grants. Also in 2014, KVEC was awarded the project prevent grant as well as a Gates Grant in 2016. KVEC embraces the opportunity to contribute as a leading voice in the state and national conversation regarding rurality, education and workforce development. KVEC firmly believes and is demonstrating that P12 public education is the fulcrum and corresponding catalytic lever to transform the communities of eastern Kentucky. The work underway in Appalachian Kentucky is an important, significant, and effective model that will serve as a roadmap for other rural communities working to dramatically improve educational outcomes for students in rural schools nationally.

Research Questions

In determining the potential research questions for the Education Innovation Clusters in KVEC, the researchers will identify exemplary case studies that have been effective in the Appalachian Leadership Laboratory program and the Appalachian Renaissance Initiative.

The Appalachian Leadership Laboratory is a project of the Kentucky Valley Educational Cooperative, made possible by a Race to the Top District (RTTT-D) grant. The mission of the

Appalachian Leadership Laboratory is to build the shared leadership capacity of rural teacher leaders, principals, and central office administrators through innovative, personalized, clinical professional learning. The Appalachian Renaissance Initiative is a collaborative effort that has a program objective of sharing resources and professional learning to affect policy and protocol to connect learners to highly effective teachers every day. Both programs have elements established in the EIC model and through the process KVEC established the Enduring Learning Leadership Laboratory Initiative (EL₃) which specifically targeted key leaders from across the board that shared and exhibited the characteristics of engaging programs that connected with the stakeholders from within the community. By exploring exemplary cases from these programs, the researchers will ask the following questions:

What conditions are necessary for student agency to lever community social capital investment in advancing community vitality?

How is student agency operating in these cases?

What does student agency look like in these case studies?

What conditions were necessary and what were the enabling conditions in these models?

How do the key stakeholders perceive the resources? How are the resources being used? What additional resources might be needed for an additional outcome?

Where are there pockets of productive activity in these cases?

In each case study, the goal will be to create an asset map of the resources that were used, how they were used, who participated, and to what outcome the resources were gathered and petitioned. The asset map will serve as a model for other EICs and communities to review and scale.

There are some additional opportunities through interviews and observations to tap into the effectiveness of each case study. The researchers will develop an observation rubric and interview protocols to serve as a way to focus on the descriptive elements of how effective the work was to that community and to learn the processes that can potentially be scaled up to other communities and EIC models. The in-depth scale up questions are as follows:

Key takeaways from the case study through observations and interviews;

Descriptive elements from the work and how the work was conducted;

Takeaways from the model that can transfer;

What evidence is there that these models have either been sustained or implemented throughout the communities?

To what extent did you see the work in the community, if not what were the barriers?

What conditions were necessary and what were the enabling conditions?

Goals of the Research

It has been cited by researchers that the achievement differences by family income now equal or exceed those by race. The widening income gaps in family structure and SES and other sources of social capital suggest that these patterns may continue indefinitely unless strategies to bridge the divide are implemented. EICs offer a unique opportunity to close the gap by bringing key stakeholders together to change the narrative for their regions.

The research being proposed offers the KVEC innovation cluster the opportunity to develop a deeper understanding of the resources available, a way to apply those resources to connect to community development, and an overall strategy to improve the economic, education, and employment viability of the region. Moreover, the research allows KVEC's EIC to begin the transformative work of uplifting the region and, thus, the cultural expectations of both students and those who live in these communities.

Audience

The proposed cases studies that are being developed through the planning grant for KVEC would be extensions capable of being used by rural educators and community leaders across the US. As it has been discussed, Social Capital, has been at the forefront of community development for some time and being a position to develop a deeper understanding of how to not only grow social capital but to extend the models that can be replicated to others should be applicable to all educators.

Sample

The KVEC region is comprised of twenty-one school districts. The study will include a purposeful sample of thirteen schools that participate in the Activating Catalytic Transformation (ACT) program. In the ACT program, there are six elementary schools, two middle schools, and five high schools. Each school has been part of the Appalachian Leadership Laboratory program and the Appalachian Renaissance Initiative. The sample will have a complete feeder pattern and include single school models that represent the broad Appalachian region.

These schools represent an intentional network that has demonstrated an ongoing relationship toward innovation within the models from KVEC. These models have included work around GRO (Getting to Outcomes), Bridges out of Poverty, (QRT)-asking the right questions, and areas in which the schools have developed a social mapping network of resources. The program has developed a structured model for the participants with the goal to replicate the results across the region through its Enduring Learning Leadership Laboratory Initiative (EL₃).

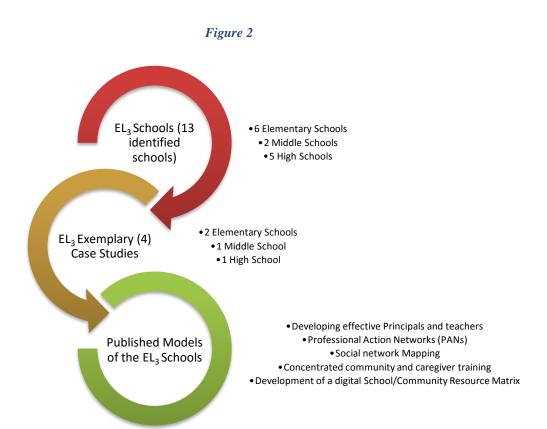
EL₃ was designed to actively engage all stakeholders from each school in increasing their ability to fully serve the *cradle to career model* and to guide the participants through a networked clinical process that will dramatically increase community connection to learning and reshape existing systems for continuous professional growth resulting in increased student performance.

The process to select the case studies will involve a thorough review of all 13 schools from the EL₃ program. The review will consist of analyzing documents, communication patterns to and from parents and community members, existence of outcome data, the mapping of internal and external resources, and appearance of the five broad interconnected components of EL₃:

- (1) Developing effective elementary Principals and teachers with a specific focus on the elementary Principal as the lead learner,
- (2) Professional Action Networks (PANs) of practitioners focused on community engagement and balanced assessment of learning,
- (3) Social network Mapping Project to increase human capital investment in learning,
- (4) Concentrated community and caregiver training and engagement process,

(5) Development of a digital School/Community Resource Matrix that services to firmly connect the school and the community to learning targets and focuses on matching need to available resources.

From there the researchers will identify four schools that allow a deeper case study analysis of the participants, the outcomes, barriers, and transferable elements that can be replicated across the region. The intent is to identify 2 Elementary Schools, 1 Middle School, and 1 High School that has exemplary work around each component. Each step of the process is meant to develop a comprehensive roadmap that will carefully track the progress, objectives, and outcomes embedded in each school model. The sampling process is mapped out in Figure 2:



Sources of Data

Cases studies will be developed using a mixed methods approach. The collection of artifacts will range from quantitative school data to qualitative interviews and collection of support materials. The data sources that are collected and analyzed could contain the following but are not limited to the list:

Quantitative	Qualitative
School Report Cards	Student Interviews
Teacher Evaluation Data	Teacher Interviews
Existence of community Projects that extend beyond school	Community Participation List
Student Lead Projects as demonstrated	Social Network Map-How was it Developed
Student Performance and Attendance	Social Network Map-Who Participated
Community Attendance at Project Demonstrations	Professional Development Participation
Community review and participation of students led projects	Access to the asset maps

Methods: Descriptive Analysis

The EL₃ process will begin with a descriptive analysis of the 13 schools that have been selected to participated in the program. The process will include qualitative interviews with community members from each of the schools. The narrative from these interviews will be the basis for the definition of innovation as seen through the eyes of the participants. Each case study will highlight the innovation, the participants, how they were organized, what the leadership structure entailed, outcomes from the work, barriers and obstacles, and the transferability of the outcomes. The interview scan will create a framework in which key themes will be identified along with markers that demonstrate the innovation being displayed and scalable. These iterations from each school will then allow the researcher and the team to develop a framework that can be applied to the 4 schools for a much deeper dive. It is within these 4 schools that the researchers hope to identify how the work extends beyond the school and into the community.

The EL₃ initiative has been designed with clear, measurable goals and objectives, the researchers will utilize these components to capture data on each component. Additionally, the researchers, with KVEC leadership, will carefully track progress that has been made against the goals, objectives, and outcomes for the EL₃ five defined themes. By using artifacts collected, interviews, and monitoring tools that are formative and summative around each of the 4 case studies that include monthly surveys and feedback from participants, culture and climate surveys,

coaching protocols, professional practice ratings, and local and state assessment and accountability data as metrics to measure success, transportability and scalability the researchers hope to gain a deep understanding of how transferable the skills and results are across the region and nationally.

What are the relevant theories, studies that inform and benefit from this work?

Understanding how to develop and increase social capital in a community has and will continue to be at the forefront of community development organizations and as we see growth in understanding these characteristics, education will be a vital mechanism necessary for growth.

The research around the KVEC EL₃ five defined themes should unfold in a way to where one should be able to see a tight link to strategic models and an implementation framework that allowed theses occurrences to be possible. Underlying the theory is the notion of social capital to both develop communities and to allow change and economic growth through additional tools that allow more social capital to be obtained within the region. The theory of *social capital* and the contribution to understanding social capital through KVEC's EIC model should add to the literature and allow a *deeper understanding of the limitations of the concept when interpreted as a causal force able to transform rural communities* (Social Capital: Promise and Pitfalls of its Role in Development, 2017). The relevant examples that could be studied through the 13 schools and the 4 case studies should likewise point to the *significance of social networks and community assets in the viability of initiatives and the difficulties of institutionalizing* these models.

By theorizing the specific forms of social capital, perspectives that highlight strengths within a model allowing growth and understanding ones that weaken social capital within a community should allow a region and specifically a rural area to best reconfigure its organizational alignment to maximize affect (Mayer, 2003). Adding to this literature develops *organizational change needed and professional practice* to promote social capital. The impact frames up local and state relations which could highlight gaps and weaknesses within the model and lead to economic capital for the region (DeFilippis, 2001). The strategies in each case study should be linked to specific characteristics and markers around evidence based models (Sales, et al. 2006).

The research should also inform practices in *rural education and place based education*. To some it may seem paradoxical where there is a notion of interconnectedness and the case studies could inform how anchored those connections are in the locality of the region. The theoretical foundations of place based education should inform the merits and the limitations of the current approaches for the Appalachian region (Collen, 1993 & McInerney, P., Smyth, J., & Down, B. 2011). The notions of place, identify, and community, all have theoretical basis is increasing social capital via the students of the region. The implications around rural education and place based education could then further be studied regarding curriculum, pedagogy, and teacher education.

The research impact is highlighted below by Figure 3, showing the relational elements and the impact it could have on the key topics of *Rural Education, Education Administration, Place*Based Models, Organizational Change, Decision Making, and Professional Practice

Place Based Models

Change

Decision Making

Social Capital

Professional Practice

Figure 3

Survey and Observation Tools

Several survey instruments will be developed as part of the evaluation process, these include community, teachers, and student surveys. Additionally, to evaluate the appearance of the five

broad interconnected components of EL₃, rubrics have been developed to assist in understanding the appearance, activities, and participation of each component. The rubrics will be evaluated by key KVEC personnel and will establish measures for each component and participant. These rubrics are attached below.

What Resources would be required for this study

Several survey instruments will be developed as part of the evaluation process, these include community, teachers, and student surveys. Additionally, to evaluate the appearance of the five broad interconnected components of EL₃, rubrics have been developed to assist in understanding the appearance, activities, and participation of each component. These rubrics are attached below:

Component 1 Goal: To implement the PETLL 2.0 (Perpetuating Exthat uses five interdependent work stream component networking, clinical professional learning, and develoeffectiveness and capacity of educators with an emphasic	s of facilitative coaching, popment and use of micro-cr	peer mentoring, the dentials to built	formalized d leadership
Objectives		Measures	
1.1 Improve cultural, instructional and organizational	l effectiveness of a	90% of elemen	ntary
minimum of 6 principals/schools per academic year as measured by VAL-ED, PETLL 2.0 Catalytic Leadership Skills ratings, and personalized Catalytic Action Plan metrics.		principals in PETLL 2.0 will have improved VAL-ED results	
Action Plan metrics.		100% of elementary principals in PETLL 2.0 schools will have improved PETLL 2.0 Catalytic, Leadership Skills ratings Attainment of personalized Catalytic Action Plan metrics	
Year 1			
Activities	Resp.Personnel	Start Date	End Date
Transformational Leadership Launch (TLL) residential training for cohort principals	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Staff training on PETLL 2.0 strategic implementation, facilitative coaching strategies and Catalytic Action Plan	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		

Development and refinement of Problem of Practice	KVEC PETLL 2.0		
and Catalytic Action Plan	trained staff,		
and Catalytic Action Flan	Facilitative Coaches,		
	Participants		
Initiate process to develop professional Micro	KVEC PETLL 2.0		
credential for early childhood or early elementary	trained staff,		
education certified by Digital Promise and hosted by	Facilitative Coaches,		
Bloom Board	Participants		
Reciprocal PETLL 2.0 initial and recurring visits	KVEC PETLL 2.0		
Recipiocal Let Let 2.0 illitial and recurring visits	trained staff,		
	Facilitative Coaches,		
	Participants		
Implementation of Catalytic Action Plan with	KVEC PETLL 2.0		
ongoing coaching by Facilitative Coaches	trained staff,		
ongoing coaching by Facilitative Coaches	Facilitative Coaches,		
	Participants		
Implementation of Communities of Reflective	KVEC PETLL 2.0		
Practice (CORPs) for first cohort of principals	trained staff,		
(monthly convening of CORPs)	Facilitative Coaches,		
(monthly convening of COM's)	Participants		
Reciprocal PETLL 2.0 initial and recurring visits for	KVEC PETLL 2.0		
cohort schools	trained staff,		
Conort schools	Facilitative Coaches,		
	Participants		
Presentation by principals at regional summit on	KVEC PETLL 2.0		
planned Catalytic Action Plan	trained staff,		
planned Catalytic retion rain	Facilitative Coaches,		
	Participants		
Training for Cohort 1 principals in collaborative	KVEC PETLL 2.0		
coaching as Principal Coaches for Cohort 2	trained staff,		
principals	Facilitative Coaches,		
principals	Participants		
Presentation by principals at regional summit on	KVEC PETLL 2.0		
Catalytic Action Plan results	trained staff,		
	Facilitative Coaches,		
	Participants		
Case studies of PETLL 2.0 and each principal's	KVEC PETLL 2.0		
Catalytic Action Plan results presented and	trained staff,		
published	Facilitative Coaches,		
1	Participants		
Selection process to select 12 principals for second	KVEC PETLL 2.0		
PETLL 2.0 cohort	trained staff,		
	Facilitative Coaches,		
	Participants		
Compone	nt 1 – Year 2	1	•
Activities	Resp.Personnel	Start Date	End Date
Transformational Leadership Launch (TLL)	KVEC PETLL 2.0		
residential training for principal and	trained staff,		
school/community lead team	Facilitative Coaches,		
The second secon	Participants		
	- articipants	1	

Y	ear 1	into learning go	ums.
		teachers will in understanding assessments an incorporate tha into learning ga	crease of d how to t knowledge
2.1 Improve principal and teacher impact on teacher professional practice in EL ₃ schools as measured by the Framework for Teaching ratings and Catalytic Action Plan metrics. 2.2 Increase connection to and engagement in achieving learning objectives to the community and caregiver support network.		90% of early elementary teachers in the EL ₃ Initiative will have improved teacher ratings on Framework for Teaching. 100% of early elementary	
Component 2 Goal: Develop two Professional Action Networks that will increase staff and community capability to increase learning outcomes. One network will focus on Assessment and Accountability Measures for early childhood and early elementary, the other will focus on Community and Caregiver Engagement.		Measures	
Presentation by PETLL 2.0 principals at regional summit on Catalytic Action Plan results	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Training for Cohort 2 and 3 principals in Collaborative Coaching (Cohort 2 will serve as peer coaches to Cohort 3 while Cohort 3 receives training for future cohorts).	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Presentation by PETLL 2.0 principals at regional summit on planned Catalytic Action Plan	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Reciprocal PETLL 2.0 initial and recurring visits	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Implementation of Communities of Reflective Practice (CORPs) for first cohort of principals (monthly convening of CORPs)	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Implementation of Catalytic Action Plan with coaching by Facilitative Coaches and Principal Coaches	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Begin Micro Credential (early childhood/early elementary) enrollment and engagement for all Principals	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		
Development and refinement of Problem of Practice and Catalytic Action Plan	KVEC PETLL 2.0 trained staff, Facilitative Coaches, Participants		

Activities	Resp.Pers.	Start Date	End Date
Each school community will identify two staff	PAN Leads and Fac.		
members to serve on the Assessment and	Coaches		
Accountability Professional Action Network.			
Each school community will identify two staff	PAN Leads and Fac.		
members to serve on the Community and Caregiver	Coaches		
Professional Action Network.	D.1377 1 1 D		
Training for PAN members in their respective focus	PAN Leads and Fac.		
areas begins with Launch activity. Each PAN will	Coaches		
be led by a practitioner expert who works across the			
network to engage members in producing solutions that inform their practice and share those tools,			
processes and strategies across the network.			
Assessment and Accountability PAN will focus on	PAN Leads and Fac.		
early childhood measures and early elementary	Coaches		
balanced assessments.	Coaches		
Community and Care Giver Engagement PAN will	PAN Leads and Fac.		
focus on Social Networking Mapping, Question	Coaches		
Formulation Technique, Getting to Outcomes and			
Bridges Out of Poverty.			
Ongoing training and resource development for and	PAN Leads and Fac.		
by PAN members continues throughout the year via	Coaches		
face to face sessions, in school visits and digital			
connectivity.			
YE	EAR 2		
Each PAN will continue to increase their knowledge	PAN Leads and Fac.		
relevant to their network through ongoing training	Coaches		
and resource development in a blended digital and			
face to face model led by a regional PAN Lead.			
Each PAN will initiate training and begin the	PAN Leads and Fac.		
process to mentor additional staff in the developing	Coaches		
body of knowledge and information associated with			
their particular PAN.		27	
Component 3	f D 1 C(Measures	
Goal: In conjunction with partner organizations (Cent			
and Rural Policy Research Institute) develop a locally Mapping Project and for each participating EL ₃ scho			
3.1 Establish a process to develop a social networking		100% of EL ₃ so	chools will
community.	map for the school	develop and ma	
3.2 Maintain an ongoing process for social networking	map expansion.	social network	
refinement and use.		identifies resou	•
		individual and	· ·
		that can contrib	
		increased learn	ing gains
		among early ch	nildhood and
		early elementar	ry learners.
	ear 1	C44 D 4	E-JD 4
Activities	Resp.Pers.	Start Date	End Date
EL ₃ staff and Partner Organization team members	EL ₃ Leads, PAN Lead		

will provide training in the development of Social			
Network Mapping process.	and Partners		
Community and Care Giver Engagement PAN will	EL ₃ Leads, PAN Lead		
initiate process to develop a Social Networking	and Partners		
Mapping Project in their respective school through.	and randing		
PAN members will begin process to "map" the	EL ₃ Leads, PAN Lead		
social networks in the community.	and Partners		
PAN members will complete phase 1 of the	EL ₃ Leads, PAN Lead		
mapping initiative.	and Partners		
	ear 2	1	l.
Each EL ₃ School will use the Social Networking	EL ₃ Leads, PAN Lead		
Asset Map as a resource to target specific	and Partners		
individuals and organizations to include in			
intentional training opportunities designed to			
increase engagement, i.e., QFT, GTO and Bridges			
out of Poverty.			
Each School will use the Social Networking Asset	EL ₃ Leads, PAN Lead		
Map as a resource to increase engagement in	and Partners		
initiatives that will directly impact learning			
outcomes.			
Component 4		Measures	
Goal: In conjunction with partner organizations (The	Right Question Institute,		
Rand Corporation and Aha Process, Inc.) develop and			
driven training curriculum that is action oriented and s			
to engage a broad range of stakeholders in solution dr			
childhood and early elementary learners.	•		
4.1 Train a cohort of specialists in three relevant and	practical methods to	100% of EL ₃ schools will	
-		initiate a community	
empower and engage community members and caregivers.		training/engagement process	
		training/engage	•
4.2 Provide relevant training to targeted populations the		0 0 0	ement process
		that will contri	ement process bute to
4.2 Provide relevant training to targeted populations the		that will contribute increased learn	ement process bute to ing gains
4.2 Provide relevant training to targeted populations the		that will contril increased learn among early ch	ement process bute to ing gains nildhood and
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources.		that will contribute increased learn	ement process bute to ing gains nildhood and
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources.	ear 1	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities	ear 1 Resp.Pers.	that will contril increased learn among early ch	ement process bute to ing gains nildhood and
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the	ear 1 Resp.Pers.	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT,	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty.	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty.	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty.	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty.	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty. Y Following initial training by Partner Organizations during Year 1 PAN implementation, EL3 school	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty. Y Following initial training by Partner Organizations during Year 1 PAN implementation, EL3 school teams will plan a sequenced schedule of learning	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty. Y Following initial training by Partner Organizations during Year 1 PAN implementation, EL3 school teams will plan a sequenced schedule of learning opportunities for targeted community members	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty. Y Following initial training by Partner Organizations during Year 1 PAN implementation, EL3 school teams will plan a sequenced schedule of learning opportunities for targeted community members utilizing the Social Network Mapping results.	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners ear 2 EL ₃ Leads, PAN Lead and Partners	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty. Y Following initial training by Partner Organizations during Year 1 PAN implementation, EL3 school teams will plan a sequenced schedule of learning opportunities for targeted community members	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners EL ₃ Leads, PAN Lead	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.
4.2 Provide relevant training to targeted populations the communities ability to connect need to resources. Y Activities Partner Organization and trained EL3 staff will conduct "train the trainer" events for the Community and Care Giver PAN members in QFT, GTO and Bridges Out of Poverty. Y Following initial training by Partner Organizations during Year 1 PAN implementation, EL3 school teams will plan a sequenced schedule of learning opportunities for targeted community members utilizing the Social Network Mapping results. EL3 staff and Partner Organization team members	ear 1 Resp.Pers. EL ₃ Leads, PAN Lead and Partners ear 2 EL ₃ Leads, PAN Lead and Partners	that will contril increased learn among early ch early elementar	ement process bute to ing gains nildhood and ry learners.

Social Network Mapping process.			
PAN team members will work with community	EL ₃ Leads, PAN Lead		
members to develop concrete objectives for targeted	and Partners		
projects using the GTO process.	und Turners		
Component 5		Measures	
Goal: Develop a locally designed Digital School/Community Resource Matrix		Wicasares	
that connects need to resources and serves as a place-based social lea			
framework.	sused social learning		
5.1 In conjunction with all partners and Tech Designe	rs from theholler org	100% of EL ₃ so	chools will
develop an interactive framework that can be self-populated and structured for		use the School/Community	
convenience and ease of two-way communication.		Resource Matrix to increase	
5.2 In conjunction with all role groups begin use of the School Community		resources (physical and	
Resource Matrix as a tool for training and leveraging resources to create		human capital) in their	
solution driven outcomes for early childhood and earl		ongoing efforts	
	,	early childhood and early	
		elementary learning	
		elementary lear	rning
		elementary lear achievement.	rning
			rning
Y	ear 2		rning
Y Activities	ear 2 Resp.Pers.		End Date
		achievement.	
Activities	Resp.Pers.	achievement.	
Activities EL ₃ staff and collaborating partners will complete	Resp.Pers. EL ₃ staff and	achievement.	
Activities EL ₃ staff and collaborating partners will complete the design and framework for the Resource Matrix.	Resp.Pers. EL ₃ staff and collaborating partners	achievement.	
Activities EL ₃ staff and collaborating partners will complete the design and framework for the Resource Matrix. EL ₃ and PAN team members will initiate initial population of the Resource Matrix from the Social Networking Map created during Year 1.	Resp.Pers. EL ₃ staff and collaborating partners EL ₃ staff and collaborating partners	achievement.	
Activities EL ₃ staff and collaborating partners will complete the design and framework for the Resource Matrix. EL ₃ and PAN team members will initiate initial population of the Resource Matrix from the Social Networking Map created during Year 1. The Resource Matrix in all participating EL ₃ schools	Resp.Pers. EL ₃ staff and collaborating partners EL ₃ staff and	achievement.	
Activities EL ₃ staff and collaborating partners will complete the design and framework for the Resource Matrix. EL ₃ and PAN team members will initiate initial population of the Resource Matrix from the Social Networking Map created during Year 1.	Resp.Pers. EL ₃ staff and collaborating partners EL ₃ staff and collaborating partners	achievement.	
Activities EL ₃ staff and collaborating partners will complete the design and framework for the Resource Matrix. EL ₃ and PAN team members will initiate initial population of the Resource Matrix from the Social Networking Map created during Year 1. The Resource Matrix in all participating EL ₃ schools	Resp.Pers. EL ₃ staff and collaborating partners EL ₃ staff and collaborating partners EL ₃ staff and	achievement.	
Activities EL ₃ staff and collaborating partners will complete the design and framework for the Resource Matrix. EL ₃ and PAN team members will initiate initial population of the Resource Matrix from the Social Networking Map created during Year 1. The Resource Matrix in all participating EL ₃ schools will "go live" and all staff will be trained in its use	Resp.Pers. EL ₃ staff and collaborating partners EL ₃ staff and collaborating partners EL ₃ staff and	achievement.	

What capacity would be required and by whom?

The main need for capacity in the planning grant would require staff with adequate time. Assuming a site visit to each of the 13 schools to evaluate their models around EL₃ and an additional time required for the selected 4 case studies, the time needed would be 15 to 20 days worth of onsite visits and an additional 10 days to evaluate data and reports.

The nature of our evaluation necessitates a range of design considerations since it is likely that various questions will emerge, and numerous processes and activities may need to be observed or assessed across different levels. However, we can anticipate employing primarily quasi-experimental and repeated measures designs, with theory-based and qualitative methods also serving as important approaches.

We anticipate using the following guiding evaluation questions to steer our work and generate information about the effectiveness of EL₃.

- 1. What assortment of services were implemented and delivered? To whom? What were the characteristics of participants?
- 2. How was the EL₃ program transformation envisioned, implemented and managed? To what extent was the transformation implemented as designed? How much variation occurred across settings? What adjustments needed to be made?
- 3. Did the EL₃ model improve specific outcomes for participants (at different levels) receiving services? Is the project differentially effective with subgroups? What dosage of services and supports are needed to achieve outcomes?
- 4. Did the EL₃ model improve specific outcomes for community residents?
- 5. Did the EL₃ project improve community conditions?
- 6. To what extent do children and families perceive that the community solutions are effective?

What are the constraints, risks, and burdens?

Main Constraints/Burdens

- Large Region
- Range of projects within each region could vary;
- Engagement/commitment from community to collaborate with students;
- Time for coaching/project management;
- Recruiting a champion in each community; committee;
- Evaluating 14 different projects in a timely manner
- Mapping of all community resources within innovation cluster

References

Auerbach, S. (2012). School Leadership for Authentic Family and Community Partnerships: Research Perspectives for Transforming Practice. Routledge.

Bauch, P. A. (2001). School-Community Partnerships in Rural Schools: Leadership, Renewal, and a Sense of Place. *Peabody Journal of Education*, 76(2), 204–221. https://doi.org/10.1207/S15327930pje7602_9

Bonsal, F. (2017 March 26). What's an education innovation cluster and how do we get one? TU Innovates. Towson University. Retrieved: http://tuinnovates.com/2017/03/26/whats-education-innovation-cluster-get-one/.

Byun, S., Meece, J. L., Irvin, M. J., & Hutchins, B. C. (2012). The Role of Social Capital in Educational Aspirations of Rural Youth*. *Rural Sociology*, 77(3), 355–379. https://doi.org/10.1111/j.1549-0831.2012.00086.x

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. American Journal of Sociology, 94(S1), 95-120. doi:10.1086/228943

Colleen A. Capper. (1993). Rural Community Influences on Effective School Practices. *Journal of Educational Administration*, 31(3). https://doi.org/10.1108/09578239310038796

DeFilippis, J. (2001). The myth of social capital in community development. *Housing Policy Debate*, 12(4), 781–806. https://doi.org/10.1080/10511482.2001.9521429

Falk, I., & Kilpatrick, S. (2000). What is Social Capital? A Study of Interaction in a Rural Community. *Sociologia Ruralis*, 40(1), 87–110. https://doi.org/10.1111/1467-9523.00133

From risky to responsible: expert knowledge and the governing of community-led rural development - ScienceDirect. (n.d.). Retrieved August 29, 2017, from http://www.sciencedirect.com/science/article/pii/S0743016703000755

Fromhold-Eisebith, M.; Eisebith, G. (2005). How to institutionalize innovative clusters? Comparing explicit top-down and implicit bottom-up approaches. *Research Policy*. 34(8); 1250-1268. Retrieved: http://www.sciencedirect.com/science/article/pii/S0048733305001095

Hodas, S. (2015 March 6). Designing a network of education innovation clusters. Digital Promise. Retrieved: http://digitalpromise.org/2015/03/06/designing-a-network-of-education-innovation-clusters/.

Hurst, Charles. (1992). Inequality in Appalachia. Social Inequality: Forms, Causes, and Consequences, 6th Edition. Pearson Education. pp 62-68.

Jencks, C., & Phillips, M. (1998). The black-white test score gap. Washington, D.C.: Brookings Institution Press.

Lareau, A. (1987). Social Class Differences in Family-School Relationships: The Importance of Cultural Capital. Sociology of Education, 60(2), 73-85. doi:10.2307/2112583

Lichter, D. T., & Brown, D. L. (2011). Rural America in an Urban Society: Changing Spatial and Social Boundaries. *Annual Review of Sociology*, *37*(1), 565–592. https://doi.org/10.1146/annurev-soc-081309-150208

Mayer, M. (2003). The onward sweep of social capital: causes and consequences for understanding cities, communities and urban movements. *International Journal of Urban and Regional Research*, 27(1), 110–132. https://doi.org/10.1111/1468-2427.00435

McInerney, P., Smyth, J., & Down, B. (2011). "Coming to a place near you?" The politics and possibilities of a critical pedagogy of place-based education. *Asia-Pacific Journal of Teacher Education*, 39(1), 3–16. https://doi.org/10.1080/1359866X.2010.540894

Mezirow, J., & Taylor, E. W. (2011). *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education*. John Wiley & Sons. pbexcerpt.pdf. (n.d.). Retrieved http://www.kohalacenter.org/teachertraining/pdf/pbexcerpt.pdf

Molnar, M. (2015 March 17). Education innovation clusters' aim to improve schools: Regional networks emerging across U.S. EdWeek. Retrieved: http://www.edweek.org/ew/articles/2015/03/18/education-innovation-clusters-aim-to improve-schools.html.

Office of Educational Technology. (2014). Education innovation clusters: Accelerating the pace of innovation. Retrieved: https://tech.ed.gov/innovationclusters/.

Putnam, R. (1995). Bowling Alone: America's Declining Social Capital. Journal of Democracy, 6(1), 65-80.

Rural Schooling in Mobile Modernity: Returning to the Places I've Been - ProQuest. (n.d.). Retrieved August 29, 2017, from

 $\underline{https://search.proquest.com/openview/e132e1829d1b4fcad1db2d513f867b1e/1?pq-origsite=gscholar\&cbl=39788}$

Smith, G. A. (2002). Place-Based Education: Learning to Be Where We are. *Phi Delta Kappan*, 83(8), 584–594. https://doi.org/10.1177/003172170208300806

Social Capital: Promise and Pitfalls of its Role in Development | Journal of Latin American Studies | Cambridge Core. (n.d.). Retrieved August 29, 2017, from https://www.cambridge.org/core/journals/journal-of-latin-american-studies/article/social-capital-promise-and-pitfalls-of-its-role-in-

development/F0AEBF637F3DBE424A07ECF92EA70213#fndtn-information

Sales, A., Smith, J., Curran, G., & Kochevar, L. (2006). Models, Strategies, and Tools: Theory in Implementing Evidence-Based Findings into Health Care Practice. *Journal of General Internal Medicine*, 21(Suppl 2), S43–S49. https://doi.org/10.1111/j.1525-1497.2006.00362.x

Rothstein, R. (2004). Class and schools: Using social, economic, and educational reform to close the Black-white achievement gap. New York, NY: Teachers College, Columbia University.

South, J. (2014 October 16). Education innovation clusters: Help is on the way! Next Generation Learning Challenges. Retrieved: http://netgenlearning.org/blog/education-innovation-clusters-help-way.

Tickamyer, Ann; Cynthia, Duncan. (1990). Poverty and Opportunity Structure in Rural America. *Annual Review of Sociology*. 16:67-86. Retrieved November 28 from Academic Search Premier.