

# Responding to the Challenges of Gifted Education in Rural Communities

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## Abstract

There are both achievement and opportunity gaps for low-income students when compared to their economically advantaged peers; and, for rural students, these gaps may be even more pronounced. In this manuscript we draw from our ongoing work in a five-year federally-funded, Jacob K. Javits grant focusing on promoting gifted education in rural schools. To address issues of under-identification of gifted students in these settings, and to investigate ways to maximize achievement, we established an alternative process for identifying gifted students in rural schools; and we created units integrating place-based pedagogy within an evidence-based curriculum model as an intervention. Finally, we discuss preliminary findings from the pilot year and first half of the second year of the study documenting success in augmenting the pool of identified students and engaging teachers in implementing the curriculum. Perhaps more importantly, we document lessons learned and more global takeaways for the field. Specifically, we discuss the influence of deficit thinking with regard to rural schooling (and subsequent recognition of gifts and talents), the risk of generalizing rural to all rural places, and the nuances of rural poverty not captured in commonly used metrics, such as Free and Reduced Lunch.

## Keywords

Gifted education, gifted students, rural education, gifted students' rural education, place-based pedagogy, rural schools, under-identification, achievement gap, opportunity gap

## Introduction

According to Young (2003), 42% of all public schools in United States were in small towns/rural areas, and 30% of all public school students attended them. Currently, 40% of students attending rural schools attend a school

where more than 50% of the students are eligible for free and reduced lunch (NCES, 2014).

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Nationally, the overall percentage of students attending schools in this free and reduced lunch category is 44% (NCES, 2014). The National School Lunch Program (NSLP), however, is only one metric for understanding how low-income, gifted rural students may lack opportunities. Rural schools also tend to have fewer specialists for gifted education services, limited resources and program options, fewer research opportunities and field trips, and lack of services provided by programs such as magnet schools, university programs, and academic contests (Burney & Cross, 2006; Cross & Burney, 2005; Hebert & Beardsley, 2001). Magnet schools (schools in which gifted students are bused to central sites for instruction) are difficult to implement in rural settings because of long distances for travel; university based programs where students attend either after school or on Saturday are lacking because of the rarity of universities in rural settings; and academic contests (such as Future Problem Solving or Odyssey of the Mind) in which school teams compete against one another are difficult to orchestrate because of small numbers of gifted students in a given school. As a result, while scholars acknowledge both achievement and opportunity gaps for low-income gifted students when compared to their economically advantaged peers, for rural students, these excellence gaps may be even more pronounced.

In this article, we present a description of a federally funded grant designed to mitigate some of the challenges for gifted education programming in rural schools, *Promoting PLACE (Place, Literacy, Achievement, Community, and Engagement) in Rural Schools*. The goals of the project are multidimensional. Our first goal was to increase the number of identified gifted students in rural gifted school divisions. Our second goal was to impact the language arts achievement of identified students; our final goal was to positively impact affective outcomes (e.g., increase student engagement in learning;

increase academic self-efficacy; increase growth mindset; and decrease stereotype threat). We present preliminary data from the first 18 months of implementation, documenting success in augmenting an alternative identification process, and on the ways in which challenges were (and were not) successfully addressed in creating and implementing an alternative curriculum, and lessons.

*Promoting PLACE* uses place-based language arts instruction to promote literacy skills in historically underserved high ability rural youth. *Promoting PLACE* focuses on reading and writing in an evidence-based curricular model that combines three successful components of curriculum for gifted students (Callahan, Moon, Oh, Azano, & Hailey, 2015). To advance the achievement of gifted students of poverty in rural schools, we first had to identify a larger pool of gifted students; in many schools in rural settings only 1 or 2 students are identified per grade level (and sometimes none). The project structured its identification process around the concept of opportunity to learn put forward by David Lohman (2013). Opportunity to learn is based on the assumption that students from certain subgroups (e.g., English language learners (ELL), minority students, students from poverty) do not have access to the same resources or experiences as the majority population, and hence, should not be compared to the majority population when determining their aptitude and achievement, but rather, should be compared to others who have the same opportunity to learn. Identification of giftedness is then based on local norms – in the case of Project PLACE comparing scores of students to scores of other students in their schools rather than to national norms. The second stage of the project is to expose students to a curriculum developed in accord with the CLEAR curriculum model modified to incorporate the principles of place-based education (Callahan, Moon, Oh, Azano, & Hailey, 2015); and the final component is interventions to reduce stereotype threat (Alter,

Aronson, Darley, Rodriguez, & Ruble, 2010) and increase a growth mindset (Dweck, 2006) for rural students.

## **Concerns in Rural Gifted Education**

The opportunity gaps for rural gifted students are increasingly being documented (Azano, 2014; Plucker, 2013; Stambaugh & Wood, 2015). These gaps are reflected in every aspect of gifted education, including identification, programming, staffing, professional development, and policy, and become obvious when comparing levels of funding for gifted programs. In the state of Virginia for example, where our project is situated, drastic differences in achievement and per student expenditures go hand in hand. For example, in 2014 when we began our grant, Fairfax County Public Schools (FCPS) allotted \$10.6 million for its Advanced Academic Program, with a per student expenditure of \$241.28 (retrieved from <http://www.fcps.edu/fs/budget/documents/approved/FY14/ProgramBudgetFY2014.pdf>), which is more than twice the per student expenditures of their rural counterparts in Mathews County Public Schools, a rural district in the Commonwealth, which allocated \$15,000 for all gifted program services (retrieved from [http://www.mathews.k12.va.us/text/FY14\\_ameended\\_adopted.pdf](http://www.mathews.k12.va.us/text/FY14_ameended_adopted.pdf)), with a per student expenditure of \$102.04 (Leann Hunley, personal communication, June 13, 2014). By comparison, FCPS budgeted \$804,085 just for their primary talent development program. Further, in Virginia, low-income students performed poorly on the 2009-2010 third grade reading Standards of Learning (SOL) Test, with a pass rate of 75%, which is below Annual Yearly Progress (AYP) standards. Of this 75%, only 27% passed at an advanced level (Virginia Department of Education, 2010).

Not only are gaps financial in nature; rural students, particularly those in low-income areas may come to school with certain experiential

deficits. Geographic isolation, a defining criterion of rural spaces, means that many rural students have often not traveled far from their commonly insular communities. Not only are opportunities for travel minimal without public transportation, access to museums or libraries may be limited. Even when plans for gifted programs are in place, we have found that rural school districts struggle to provide sufficient teaching resources (Azano, Callahan, Missett, & Brunner, 2014). To complicate this issue further, federal policies have shifted the focus of Title I funds to larger districts resulting in funding cuts to 10,800 rural schools (Lockette, 2010). Federal legislation ensures that special education services are available to eligible students; however, gifted students do not have comparable mandates. Hence, gifted resource teachers are often vulnerable to budget cuts tied to staffing levels and program funding (Morrow, 2004). Also, there are community considerations that influence the overall experience for rural learners; and rural education researchers have examined the complicated issue of aspirations for rural students and schooling's role in whether students stay in or leave their rural communities, a significant factor for rural gifted students (see Carr & Kefalas, 2009; Corbett, 2007; Howley, Howley, & Showalter, 2015; and Petrin, Schafft, & Meece, 2014).

## **Reading and Writing for the Rural Gifted**

Gifted students often exhibit characteristics that suggest the importance of altering the depth and complexity of learning within the curriculum and instruction they are provided (e.g. faster rate of learning, greater content knowledge, ability to grasp abstract and complex ideas earlier); yet specific interventions for reading and writing are lacking in the literature on rural gifted education. The Common Core State Standards, National Council of Teachers of English (NCTE), and others provide grade level literacy standards; however, gifted students often reach or surpass those standards prior to

them entering the grade for which they are recommended, making the issue of determining appropriate outcomes for students with higher abilities even more difficult.

Developing literacy interventions in rural schools for highly able learners is an especially daunting challenge. In efforts to increase the number of low-income rural students taking difficult coursework, Burney and Cross (2006) found that there are still many unknowns about rural gifted children of poverty, that the different circumstances and values of these students must be taken into consideration when both identifying and creating services for them, that these students often require additional support in order to overcome deficiencies in self-efficacy, self-esteem, and self-concept, and that the climate in rural schools and their educational policies may keep students from advancing academically.

We developed *Promoting PLACE* to address not only literacy outcomes but also these nebulous issues of self-efficacy, local culture, and stereotype threat. There are few empirically tested resources for providing advanced level writing to highly able rural students. In *Promoting PLACE* we attempt to address this gap by implementing a language arts curriculum developed in reference to an evidence-based model (Callahan, Moon, Oh, Azano, & Hailey, 2015) with modifications for rural students using principles of place-based education for gifted and high potential rural learners in third and fourth grade.

## **Efforts to Minimize Challenges**

### **An Alternative Identification Process**

*Promoting PLACE* applies modified strategies for the identification of gifted students, curriculum adaptation and development, and delivery of both the curriculum and non-cognitive interventions to rural gifted students in high poverty rural schools. The development of the modified identification process is in response to an underlying concern raised in the

gifted literature regarding the use of inappropriate instruments and identification processes in the identification of gifted students from historically underrepresented populations. Underlying many of the concerns is an appropriate match between the underlying abilities and potential measured by the instruments used in the identification process and the curriculum to be offered (such as of non-verbal assessments that do not offer validity evidence) (Callahan, Renzulli, Decourt, & Hertberg-Davis, 2013; Lohman, 2013; Worrel, 2013). *Promoting PLACE* focuses on improving the recognition of talent and achievement of underrepresented students in language arts by eschewing the use of non-verbal tests because of the lack of validity in predicting success in verbal achievement, and instead, identifying gifted students using the opportunity to learn paradigm proposed by David Lohman (2013). We administered the Cognitive Abilities Test (CogAT) - Verbal (a measure of verbal aptitude) subtest to all second grade students in participating schools and applied local norms relating to socioeconomic groups rather than national norms in making selections for the program (Lohman & Hagan, 2005). This is a relatively new concept, but its efficacy in identifying additional groups of underrepresented populations has been documented in the Madison Metropolitan School District (2013).

In addition to local norms on the CogAT, we used teacher ratings collected on the Scales for Rating the Behavioral Characteristics of Superior Students (SCRBCSS) (Renzulli, Siegle, Reis, Gavin, & Reed, 2009; Renzulli, et al., 2013) as part of the identification process. While the SRBCSS has been researched and the reliability and factorial validity of the scales are adequate for identification purposes (Renzulli & Smith, 2010), teacher rating scales have been demonstrated to be more accurate and valid when teachers are provided training (Johnsen, 2013). Hence, prior to having the teachers rate students, *Promoting PLACE* staff provided

professional development on use of the scales and on ways the traits described in the scales might manifest in rural students.

Students' nationally-normed and locally-normed scores on the CogAT-verbal were entered into student profile data collection templates with teacher ratings on the reading, motivation, and creativity subscales on the SRBCSS<sup>1</sup>. A committee comprised of administrators, teachers and project staff identified the high potential rural students of poverty to be included in the project based on the profiles created. Of note, this process occurred after the rural districts employed their own identification processes for identifying gifted students. The process used by the project increased the number of students in low-income rural schools eligible for gifted education beyond those identified by the local identification process. While it may appear that the project implementation would, by virtue of its nature, result in increased numbers of identified students, it turned out not to be such an easy *sell*. Even though the concept of expanding the pool of identified students had been agreed upon by those school districts *signing on* to the study, the process of applying local norms and expanding the pool ultimately required convincing a broader base of school personnel (and even school boards) that their more restrictive criteria for identification resulted in overlooking talented students, and *giftedness* was not limited to students who represented traditional conceptions of giftedness.

### **The Curriculum**

The project has also responded to the need for validating curriculum for gifted learners in rural settings. Four fully developed language arts place-based units (2 per grade level at grades 3 and 4) were provided to use in teaching literacy skills while respecting and integrating the unique experience of life in rural America. As noted above, these units are based on the CLEAR curriculum model which has been documented as effective across pull-out and

special school settings in a national study of two units based on the model using a cluster randomized design (Callahan, Moon, Oh, Azano, & Hailey, 2015).

### ***Place-based CLEAR curriculum***

The CLEAR model was developed as a framework for curricular and instructional modifications for gifted students based on the critical components from Tomlinson's Differentiated Instruction Model (2001), Renzulli and Reis' (1985; 2000) Schoolwide Enrichment Model, and Kaplan's Depth and Complexity Model (2005). Tomlinson's work is based on the belief that students should be at the center of their own learning, and learning environment, and hence, incorporates multi-modal forms of continuous assessment to elicit student data critical for curricular and instructional planning and adjustment. The underlying assumption is that gifted or high-end learners are not a homogenous group, but are quite different from one another in specific levels of background knowledge, understanding, interests, and learning profiles in any given discipline or even within a unit of study. The Schoolwide Enrichment Model (Renzulli & Reis, 1985, 2000) emphasizes creative productivity, opportunities for students to work with the tools and methods of practicing relevant "real-world" projects in an area of interest. Kaplan's curricular modification concepts are structured to build layers of challenge and meaning onto standards-based learning opportunities through elements of depth (big ideas, language of the discipline, details, patterns, rules) and complexity (multiple perspectives, interdisciplinary connections, unanswered questions, ethical issues, changes over time) (Kaplan, 2005). The CLEAR model integrates the components from these models with five foundational elements of curricular development. The five elements are: **C**ontinual Formative Assessment, **C**lear Learning Goals, **D**ata-Driven Learning **E**xperiences, **A**uthentic Products, and **R**ich Curriculum. Each of these

elements is considered as crucial for promoting student engagement and enhancing student learning (Gallagher, 1997; Kaplan, 2005; Renzulli & Reis, 1985; Tomlinson, 2001; Tomlinson & McTighe, 2006; Wiggins, 1998).

The CLEAR model units for third grade were designed around learning goals that are meaningful, important and, clear (see Azano, 2013, for a full description of the model). While the effectiveness of the CLEAR model has been documented (Callahan et al., 2015), the units were not designed to be responsive to the needs of rural learners. To ensure that we reflected the rural communities in which the units were to be tested, we surveyed all elementary teachers of treatment districts asking questions about their particular place and what in fact made it *rural*. This information was used to modify the four language arts units in poetry, folklore, research, and fiction.

Researchers in rural education have delineated several components that situate education in place and contend that learning tied to where a child lives is equivalent to learning in a place that matters (Azano, 2011; Corbett, 2009; Theobald, 1997). Connections to place, proposed by Haas and Nachtigal (1998) include five components: (a) location: where we live ecologically, (b) civics: where we live politically, (c) worth: where we live economically, (d) connection: where we live spiritually, and (e) belonging: where we live in community. These connections to place prioritize local knowledge; and advocates of improved place-based rural education seek ideologies and curricula that reject the intended normalization of *common* standards and, instead, support and honor the unique characteristics of where children live and attend school.

Place-based pedagogy, which grounds learning in “local phenomena and students’ lived experience” (Smith, 2002, p. 586), responds to the challenges in educating students in rural settings by promoting curricular relevance for rural students. Place-based advocates contend

that rural students are deeply tied to locality by their “sense of place” or a constructed reality “informed by the unique experiences, histories, motives, and goals that each of us brings to the spaces with which we identify” (Hutchinson, 2004, p. 11). Further, Budge (2006) suggested that place-conscious pedagogy should capitalize on anti-oppressive education, arguing that certain characteristics—including poverty and geographic isolation—have created apathetic rural students who often question the reasons for attending school. Thus, all aspects of the content, process, and product dimensions of the units based on the CLEAR model have been considered as potential for making the place connections with the goal of altering that attitude toward school and schooling.

### ***Increasing a Growth Mindset and Reducing Impact of Stereotype Threat***

To counter ways in which rural students might feel marginalized, we also considered two recently identified constructs used to explain under-achievement and failure to reach full potential: mindset (Dweck, 2006) and stereotype threat (Aronson & Steele, 2005). The effect of a fixed mindset has been demonstrated at multiple age levels and across multiple samples, and stereotype threat has been demonstrated across multiple populations including gifted populations (e.g., middle school minority students, white male university engineering students, and African American students at highly regarded colleges) (Aronson, Fried, & Good, 2002; Aronson & Inzlicht, 2004; Aronson et al., 1999; Aronson, Steele, Salinas, & Lustina, 1998; Steel & Aronson, 1995; Steele & Aronson, 1998). Stereotype threat has even been identified as a factor inhibiting student performance based on identification as a *Southerner* (Clark, Eno, & Guadagno, 2011).

Blackwell, Trzesniewski and Dweck (2007) demonstrated that simple interventions can be effective in altering mindsets in adolescents. In a study of “Brainology” (a program based on Dweck’s model of mindsets),

Boehm (2012) found that when challenging instruction was combined with completion of a program to increase growth mindset, mathematics scores were increased in seventh grade students (compared to students in a control group who did not complete the program). Within the gifted education field researchers have identified a combined fixed and growth mindset as characteristic of adaptive gifted adolescents (Ziegler & Stoeger, 2010). For this project we assessed mindset and developed interventions aimed at a healthy and productive blend of fixed and growth mindsets that orient students toward success, capitalizing on the development of potential and success through hard work. Because prior interventions (Alter, Aronson, Darley, Rodriguez, & Ruble, 2010; Aronson, Fried, & Good, 2002; Good, Aronson, & Inzlicht, 2003) have not focused particularly on younger students, gifted students, or rural students, we adapted the work to this age level and population. Our work includes translating the principles of prior effective interventions and applying them to the rural, elementary, gifted population.

### **Identification, Curriculum Development and Providing Interventions**

In the pilot stage of our study we asked two key questions: 1. Could we convince school districts to expand their conceptions of giftedness and implement a non-traditional process for identifying students? 2. Could we create curricular units based on a model with documented effectiveness in the general gifted population that would reflect quality of place-based learning that would engage students in rural communities who were identified through traditional and non-traditional processes of identification and that could be modified according to the differences in place across rural communities?

All of the school districts in the project are classified as both rural and high-poverty. In the

initial pilot year (2014-2015), two districts participated – one as treatment and the other control. In year two (2015-2016) of the grant, we added an additional eight school districts. In the forthcoming year, we will add our final cohort of four additional districts for a total of 14 participating districts. Our pilot treatment district had four elementary schools with approximately 52% of their students on free and reduced lunch. The students in these schools consistently performed lower than the state average in language arts (Virginia Department of Education, 2011). One gifted and talented specialist serves the four elementary schools. In total (excluding salaries), the county allocates approximately \$14,500 in total for the gifted program to cover testing, materials, and supplies for nine schools (elementary, middle and high school). The county also has a lower median household income (\$39,299) than the state median income (\$59,372) with more of its population living below the poverty line. In the first year of the study, all second grade students (“cohort 1”) were screened for giftedness using the process described above, and students were identified in the 4 treatment schools and 2 control schools in a matching district<sup>2</sup> at the end of the school year. This resulted in adding 8 students to the pool of identified gifted students in the treatment district and 6 students to the pool of identified gifted students in the control district. During their third grade year, the students in the treatment group received instruction using two language arts units: Poetry and Folklore. In their fourth grade year they will participate in two additional units: Fiction and Research. Students in the control group participate in the existing gifted program with no alterations to programming. We have completed a second round of identification in our pilot schools and have expanded to eight additional districts (see results in Table 1). All students in the treatment groups will participate in the four units of instruction. Two of those units are described below.

Table 1

Identified Students by Cohort Year

Rural School Division	Number of Students in School Division	Number Identified by the School Division		Number of Students Added	
		Cohort 1		Cohort 2	
1	1101	17	8	15	10
2	2102	9	6	3	11
3	1203			6	16
4	2204			15	12
5	1205			6	4
6	1206			2	15
7	2207			2	11
8	1208			16	21
9	2209			6	8
10	2210			27	8

**Poetry Unit: The Magic of Everyday Things**

In the poetry unit our focus was on increasing students’ knowledge and understanding of different forms of poetry while simultaneously expanding their comprehension and writing skills. We selected a title that reflects one of the big ideas of poetry: Poetry helps readers to see the extraordinary in ordinary experiences. Each objective in the poetry unit reflects one or more of the following: (a) student attainment of essential knowledge about poetry and literature such as literary devices and figurative language, (b) student understanding of relevant key principles about poetry and literature, and (c) student development and demonstration of writing, reading, and skills relevant to poetry and literature. Within the unit, state and national curriculum standards are the basis for multiple opportunities to learn ways to connect with the bigger, more abstract ideas expressed in poetry. The units further enhance students’ word knowledge, reading comprehension strategies beyond the baseline level of the standards, and guide students in applying those skills to writing

poems based on understanding how words draw and paint mental images. Students’ study of imagery where they deconstruct and demystify poems through exploration of different forms and identification of distinct literary devices inherent in poems leads them to the writing process. Students’ writing processes are guided by writing prompts and with a variety of poems relevant to students’ lives. Place is integrated throughout the lessons through both content and the specifics in the student activities. For example, students read rural-themed poems, such as “What Cows Know” by Susan Blackaby, “At Blackwater Pond” by Mary Oliver, and “Fishing” by A. E. Stallings, among others. Place is then integrated throughout the lessons. For example, in a postcard activity, in which students think about the compact nature of language in poetry, they are guided to choose clear, descriptive, and concise language to write a postcard. The lesson directs teachers to have an assortment of postcards from local landmarks or a variety of pictures that could be used to represent local places, events, historical sites, and so on, or students can bring in their own



pictures. Students then write a note about a place they feel best represents the place they live.

Students engage in authentic learning by creating poems shared in writing workshops where the learning experiences focus on students' engagement in writing, peer reviewing, revising, and presenting their poems to an audience. Students become explorers of their own experiences and the experiences of others, as they read and write poems in which concrete details reveal larger, more abstract ideas. As a culminating "real life product" as defined by Renzulli, students create a poetry anthology, which serves a summative assessment in which they organize and demonstrate their knowledge, skills, and understanding of poetry, as well as the habits of mind necessary for authentic work in poetry. For example, many students included their place-based "so much depends upon" poems (modeled after a lesson and activity of "The Red Wheelbarrow" by William Carlos Williams). Poems included topics such as a chicken, well, deer, and another about a barn: "so much depends / upon / a yellow barn / covered with metal roofing / beside / the healthy crops."

The unit guides teachers to use a variety of assessments such written pre-tests and exit cards for making instructional decisions effectively. The data from the assessments are used to guide those decisions specifically in such domains as guiding grouping arrangements, choosing instructional strategies, making pacing adjustments, and organizing/creating extra support or challenge to meet the diverse learning needs of advanced learners. The unit as a whole exemplifies best practices in developing curriculum and instruction for gifted students in that it effectively translates the recommended principles into the language arts content area. It also provides advanced and conceptually challenging, in-depth, distinctive, and complex

learning opportunities for gifted students while at the same time addressing the learning standards in the Reading–Literature, Writing, and Language strands within the CCSS English Language Arts standards and incorporating principles of place-based education.

### ***Research Unit: Exploration and Communication***

The research unit is structured to guide students in learning to derive information from, analyze, and evaluate a variety of nonfiction texts and to expand student skills in research, writing, and the use of reading comprehension strategies. Using the metaphor of researcher as explorer, the unit activities first provide students with direction in how to identify general areas of interest and then how to translate interests in an area, person, or topic into authentic research projects. Students set out on a "knowledge expedition" by posing initial research questions, then identifying, organizing, and evaluating information from different categories of nonfiction texts. In doing so, students are encouraged to consider place topics as a focus of their inquiry.

For example, in the first lesson of the unit, students complete an interest inventory, which is a *scavenger hunt* in their bedroom, house, or neighborhood, in which they're asked to explore what is important to them. In the following lesson, as students share their explorations, the teacher is provided direction in using the data collected to help students find a place-based interest related to living in Virginia (consistent with grade-level state standards). For example, (excerpted below):

The idea of the exploration is to have students find topics that genuinely interest them. At the conclusion of this activity, students should have 3 – 5 topics of interest related to Virginia. For example, a student who found a musical instrument might be

interested in the history of Appalachian music. A student who wrote about a family heirloom may be interested in how their family came to this region of the state.

Development of an appreciation of multiple perspectives on a topic and development of an understanding of how perspective shapes the way we interpret and share information serve as overarching goals throughout the unit. Further, students learn how to share their findings with a specified audience using clear and meaningful ways of communication through writing and speaking. The lessons involve students in the comprehension of texts, and writing for communication as emphasized in the Reading–Informational Texts, Writing, and Language strands of the CCSS, not only in fourth grade but also throughout elementary and secondary English language arts. Additionally, the lessons give students the opportunity to work with ideas that suit their individual interests and draw from the rural experience. As the culminating experience (also used as the summative assessment), students design and conduct a research project, which they share with an audience of students, parents, and teachers at a classroom “Research Gala.” The project represents the ultimate learning goal of understanding that research is an organized and systematic strategy for finding answers to important questions *and* that communication of findings to an *authentic* audience is a critical component of the research process. As such, the learning process incorporated in the unit with multiple layers of depth and complexity allows students to be informed consumers and producers of knowledge.

Both units are infused with directions to the teachers on mitigating stereotype threat and increasing a growth mindset by reinforcing effort while praising quality and aptitude as well as pointing to growth resulting from increased effort. In addition, during the first summer all

students in the treatment groups participated in a computer based WebQuest focusing on growth mindsets and stereotype threat, allowing for interaction with a larger peer group of identified gifted students and a greater sense of community that is often absent from the lives of rural gifted students.

### **Preliminary Findings**

While findings relative to impact on achievement and the affective variables noted above are premature at this stage, we feel it is important to discuss the lessons we are learning now. The purpose of the *Promoting Place in Rural Schools* project is to advance the achievement of gifted students of poverty in rural schools by developing (1) an identification process for rural learners, (2) place-based language arts units in accord with the CLEAR curriculum model, and (3) interventions to reduce stereotype threat and increase a growth mindset. Project goals to this stage in our work have focused on (a) implementing an identification process to identify increased numbers of gifted students in rural schools, particularly those who are of high poverty; (b) developing high quality, place-based 3<sup>rd</sup> and 4<sup>th</sup> grade language arts curriculum based on the CLEAR curriculum model; (c) adapting effective strategies to increase a growth mindset and reduce the impact of stereotype threat in identified rural gifted students; (d) increasing achievement in reading and writing by identified rural gifted students; and (e) increasing student engagement and self-efficacy.

### **Identification Process**

To address this goal, we identified three objectives for the beginning years of the project: (1) to validly assess all 2<sup>nd</sup> grade students with the Cognitive Abilities Test –Verbal (CogAT) in 10 school districts (2 pilot districts and 8 additional districts); (2) to obtain reliable and

valid teacher rating on the Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS); (3) to create student profiles for review by the project staff and the school identification committee, and identify an additional pool of non-traditional students to be added to the gifted program in each district.

In order to meet this goal effectively, we found ourselves in a position of needing to first understand the various identification processes within each of the participating districts and communicate the big ideas of the grant in order to facilitate buy-in. To that end, we hosted an orientation workshop with superintendents and gifted education coordinators to review the grant and logistics for identification. Also, we created and modified SRBCSS training by adding additional examples and ideas about gifted characteristics in rural and/or low-income students.

At the time of this report, *identification meetings* have been held with all participating districts to discuss student profiles. To develop the profiles, we enter CogAT scores based on local and national norms student information and SRBCSS into one data file, removing students from the file who score below the 75<sup>th</sup> percentile on both the CogAT and all categories of SRBCSS, *based on locally **or** nationally calculated norms as well as district and classroom norms on the SRBCSS*. We then group remaining students into the following categories: (1) 90<sup>th</sup> percentile score on both CogAT and SRBCSS, (2) 90<sup>th</sup> percentile score on CogAT only, (3) 90<sup>th</sup> percentile score on CogAT, 75<sup>th</sup> percentile on SRBCSS (4) 75<sup>th</sup> percentile on CogAT, 90<sup>th</sup> percentile SRBCSS, (5) 90<sup>th</sup> percentile on SRBCSS only, (6) 75<sup>th</sup> percentile on both CogAT and SRBCSS, (7) 75<sup>th</sup> percentile score on CogAT only, (8) 75<sup>th</sup> percentile score on SRBCSS only. These data are then presented to school staff with an ensuing discussion to identify additional students for each district's

gifted education program. In these meetings, we have learned that many rural districts are eager to meet the needs of their low-income and underrepresented students, while also giving consideration to the local community, school politics, socioeconomic discrepancies across schools in a district, and limited resources. However, we have also discovered that the myths surrounding who is gifted, particularly as they relate to the use of national norms and conceptions of gifted students as *genius* may still prevail even when districts face the reality that they have failed to identify any gifted students at all in one or more schools. These competing values make the task of convincing schools that they are not *watering down* their gifted program when using alternative strategies, a major challenge. While the theory and practical advice offered by scholars on the importance of expanding conceptions of giftedness to more accurately serve all potentially gifted students is powerful in academic circles, the practitioners who fear negative responses from parents that the program will be *watered down* or criticism from teachers in the general education program who claim "that child can't really be gifted" need further evidence to gain acceptance and recognition by teachers as gifted. The responses of the students to the curriculum added credibility to the argument that these students did have potential and added powerful, persuasive evidence in conversations with district leaders. The first was noted in the testimony and specific examples from the teacher in the pilot treatment group about the quality of products (for example, poems) created by the students meeting project standards—but not school district standards for identification. The second was the teacher's descriptions of positive engagement by all students to the curriculum and her particular notes on the blossoming of the alternatively identified group in the activities (e.g., through examples of

responses to activities calling for analysis of the meaning of poems).

### **Development of a High-Quality, Place-based CLEAR Curriculum**

To adapt and develop high quality, place-based 3<sup>rd</sup> and 4<sup>th</sup> grade language arts units based on the CLEAR curriculum model, we had three objectives: (1) to collect community data from teachers in treatment districts to identify relevant topics for place-based instruction; (2) revise existing CLEAR units to include place-based materials and determine content validity; and (3) develop an additional place-based CLEAR unit for 4<sup>th</sup> grade students in the treatment group. In Year 1, the research team developed a survey responding to the need for validating curriculum for gifted learners in rural settings. The survey was distributed to all elementary school teachers in the treatment districts in Year 2 to validate that the place-based content and activities met the various rural locales represented in the districts newly added to the study. Experts in gifted education and place-based education reviewed 3<sup>rd</sup> and 4<sup>th</sup> grade units to determine content validity with the CLEAR curriculum unit and place-based pedagogy. Additionally, growth mindset components were developed and embedded throughout all four units in the curriculum. All units were judged to be essentially good reflections of the CLEAR curriculum and place-based pedagogy by experts in those fields. Minor adjustments to the curricular units were made based on the experts' feedback. The most striking lessons, which reinforced our earlier assumption, are that rural communities are not homogenous (e.g., farming is not necessarily a characteristic of rural communities), teachers now are not necessarily residents of the rural community so may not be knowledgeable about students' lives in their communities, and technology has greatly broadened the rural

students' experience in some, but certainly not all communities.

The research team also developed an observation protocol based on Tomlinson's "Differentiated Instruction Observation Look-Fors" (2001) and the "Classroom Observation Protocol," an instrument which had been developed by University of Virginia staff based on the work of Maker and Nielsen (1996) and the 2010 Pre-K-Grade 12 Gifted Programming Standards (National Association for Gifted Students). We are currently implementing the protocols in treatment and control classrooms. Fidelity logs for the 3<sup>rd</sup> grade units were created in Year 1 and data on fidelity from the pilot year reveal that the teacher was able to implement the curriculum as it was developed, which included giving her the leeway to make adjustments as data on her students might indicate a need for more scaffolding, a faster or slower pace, or supplemental resources. The teacher in the pilot year carefully documented those changes; each one reflected fidelity to the model's principles. The teacher's openness and willingness to share her experience in implementation has been invaluable in improving the curriculum and in encouraging others to participate in the project. Our investment of time in a pilot with the opportunity to communicate often has paid off in helping us reach other districts. The third grade units have been judged by experts and by the teacher in the pilot to be reflective of the curriculum for third grade, but reflecting the standards at a higher level with engagement through the use of place in the construction of lessons. Further, we have found that the students identified through alternative strategies are as engaged and productive as those identified through traditional standards. The only students who have not continued in the program thus far are students who have left the district or who have had other mitigating

circumstances in their lives that precluded continuation in the gifted program.

### **Growth Mindset and Stereotype Threat**

To address the adaptation of effective strategies for increasing a growth mindset and reducing the impact of stereotype threat in identified rural gifted students, we had three major objectives: (1) gather pre-assessment data on third grade identified students using scales developed in Year 1; (2) develop an intervention to address stereotype threat; and (3) establish reliability and validity of mindset and stereotype threat instruments. In addition to pre-assessing students using the scales developed under this goal, we developed a WebQuest mindset intervention piloted in the treatment district in the pilot year. As we did with the curriculum, we embedded stereotype threat into the intervention. At this point we have not revised/adapted measures to the mid-elementary school level and established reliability and factorial validity of the measures, but will not be able to assess post-intervention change on mindset or stereotype threat until next year.

At the writing of this manuscript we are also still a year away from post-testing students on measures of achievement in reading and writing, engagement, and self-efficacy.

### **Conclusion**

Despite the issues and challenges of myths surrounding gifted students and gifted education we have been able to convince schools of the importance of expanding their identification processes. Perhaps most significant in getting *buy-in* for the identification process were 1) changing the orientation to one in which students would be viewed as students who were exceptional relative to their peers, and 2) providing multiple real-life examples of students from rural environments who exhibited gifted

characteristics and providing examples of gifted characteristics displayed in non-traditional ways.

The project has also validated our assumptions that rural communities are unique places, and it is inefficient and ineffective to plan interventions and curriculum based on stereotypic or even generalizations across communities. The place surveys revealed that southwest mining communities of Virginia provide dramatically different experiences and orientations than the fishing communities of the Eastern Shore or the farming communities of the rural northwest orchard communities. Place has different, unique characteristics in each setting and the possibilities for engaging students with place-based curriculum are dependent on recognition of those differences. However, using a high quality curriculum with that attention to difference has demonstrated, thus far, that students will be engaged and will produce high quality products in language arts recognized by teachers and the community.

More importantly, the teachers in the project thus far have been able to change their mindsets to include all students in the project – both those identified by district procedures and those identified by the alternative processes as equal partners in the learning process. The pilot treatment teacher was an exemplary example of a teacher who could identify extraordinary production in children’s analysis and in their writing. It was apparent that the curriculum provided her opportunities to see talent by challenging students to think and to create beyond the parameters of the standard classroom curriculum. Hence, it was by virtue of repeated opportunity for students to exhibit talent that talent was recognized and any deficit perceptions were overcome.

## Notes

1. Scaled scores of district-wide ratings and for teachers' ratings within their classroom are both provided for consideration in recognition that teachers vary widely in their leniency in ratings.
2. School districts were randomly assigned to treatment and control conditions. The district was assigned rather than schools because in most rural areas one teacher of the gifted serves all schools and we needed to avoid a treatment "bleed" effect.

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