Supporting Gifted Education in Rural Schools

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Promising Practices

Supporting Gifted Education in Rural Schools

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In this “promising practices” piece, we draw from lessons learned from a larger research study exploring how alternative identification processes and curricular interventions might influence gifted education programming for students in rural school districts. In the larger study we sought to (a) increase the number of rural students identified for gifted education services and (b) provide support for those programs in the form of a place-based language arts curriculum. As we implemented an innovative identification and curricular option for historically underrepresented students from low-income rural areas, we encountered hurdles stemming from four sources: conceptions of giftedness, teacher time and expertise, expectations for students, and fidelity of implementation. This article illuminates those challenges and discusses efforts to mitigate them and negotiate a path through to success—seeing the possible rather than limitations set forth by imposed systems affecting rural schools and communities.

Opportunity gaps for rural gifted students are well-documented (Azano, 2014; Azano et al., 2017; Callahan & Azano, 2019; Plucker, 2013; Stambaugh & Wood, 2015). These gaps are reflected in every aspect of gifted education, including identification, programming, staffing, professional development, and policy, and are obvious when programs for gifted students in rural communities are compared to gifted programs in nonrural schools. However, without state or federal mandates ensuring that gifted students receive appropriate educational resources, it is understandable that already financially strained rural schools would not prioritize programs or resources for students who many believe will “be okay” despite programming efforts. These opportunity gaps are compounded by geographic isolation, a defining criterion for rural spaces, which means that many students have not traveled outside of or far away from their local communities. With less access to travel or public transportation, there can be limited access to museums or libraries, and uneven access to internet and virtual experiences may further contribute to experiential gaps for rural students compared to their counterparts in suburban or urban areas.

According to the National Center for Education Statistics (NCES), approximately half of U.S. school districts are in rural areas with one-quarter of students in rural schools. Of those, 40% of rural students attend a school where more than 50% of the students are eligible for free and reduced lunch (NCES, 2019). However, the percentage of students eligible for free or reduced-price lunches may not be a reliable proxy for understanding poverty status (Showalter et al., 2019), and it serves as 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 program options, fewer field trips, and less access to services provided by programs such as magnet schools, university programs, and academic contests (Burney & Cross, 2006; Cross & Burney, 2005; Hébert & Beardsley, 2001). Opportunities designed to provide enrichment for rural learners are often prohibited by cost or geography. For example, magnet schools are difficult to implement in rural settings because of long distances for travel; university-based programs where students attend either after school or on Saturdays are impractical due to limited access to universities in remote rural settings; and academic contests (e.g., Odyssey of the Mind) in which school teams compete against one another are challenging to orchestrate because of small numbers of identified gifted students in a given school. 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 “promising practices” piece, we draw from lessons learned from a larger research study
exploring how alternative identification processes and curricular interventions might influence gifted education programming for students in rural school districts where more than 50% of students are eligible for free/reduced lunch. In the larger study, Promoting PLACE in Rural Schools, we sought to (a) increase the number of rural students identified for gifted education services and (b) provide support for those programs in the form of a place-based language arts curriculum. Over the course of the five-year grant, we sought to impact language arts achievement, as well as positively influence affective outcomes (e.g., increase student engagement, increase self-efficacy and growth mindset, and reduce stereotype threat).

A critical pedagogy of place (Gruenewald, 2003) provides the theoretical foundation for this work. As a theoretical construct, we posit that place informs rural constructions of giftedness (Rasheed, 2019). To ask questions or explore how to support gifted education in rural communities is to do so in a highly contextualized environment. As part of that context, we hypothesized that rural students may have unique gifts not recognized or “missed” by traditional assessments used to identify students for gifted services. We paired a critical pedagogy of place with Lohman’s (2013) concept of opportunity to learn. Opportunity to learn is based on the assumption that students from some subgroups (in this case low-income rural students) do not have comparable access to resources or experiences when compared to the larger population; thusly, these two groups will be unfairly compared if only national norms are used in making judgments about potential. Rather, students should be compared to others who have the same opportunity to learn. These theories undergird conceptions of how we might develop place-conscious strategies to support gifted education, thus yielding rural-focused and practice-based evidence (Eppley et al., 2018) relevant to developing a plan for identifying students with gifts and talents who live in low-income rural communities.

However, even when critical place-conscious theories were at work in intervention and instrument development, research design, and methods, we still encountered substantial embedded challenges in the rural school districts with which we worked. As we sought to implement an innovative identification and curricular option for historically underrepresented students from low-income rural areas, we encountered hurdles stemming from four sources:

- Conceptions of giftedness
- Teacher time and expertise
- Expectations for students
- Fidelity of implementation

This article serves to illuminate those challenges and discuss our efforts to mitigate them and negotiate a path through to success—seeing the possible rather than limitations set forth by imposed systems affecting rural schools and communities. We provide an illustrative vignette as it relates to each challenge and conclude with a discussion on promising findings and practical takeaways for rural school leaders.

**Conceptions of Giftedness**

The first challenge was a firm set of beliefs about “giftedness” on the part of school personnel and how students should be identified and selected for gifted education. This presented a major challenge in obtaining agreement from district leaders to use alternative strategies for identifying and placing students in gifted services. For example, one of the alternative strategies is using “local norms” (ranked performance within a school building) as opposed to nationally-referenced norms. By using local norms, students are not compared to students across the country but rather to same-aged students in their building (Peters et al., 2019). The existing beliefs that hampered efforts to identify a broad range of students who were legitimately of high potential were based in two related assumptions. The first was that gifted students are only those with very high scores on traditional measures of intelligence. One might call this the “Einstein phenomenon” or the “Sheldon phenomenon” in that individuals can only imagine giftedness as it fits within their conception of giftedness (read: genius) as extraordinary and extremely rare. Accompanying that belief is the next logical tenet that there are not likely to be many, if any, gifted students in any given school. Even in those cases where educators were willing to work with an expanded set of criteria, any reservations were more often than not rooted in beliefs about high IQ scores based on national norming data as the best indicator of talent.

To address this first challenge we cultivated trusting relationships with those responsible for gifted education programming and the administrators influential in policy and instructional decision-making. First, we approached our school district partners using a combination of (a) the body of literature on expanded conceptions of giftedness illustrating the cases of many individuals recognized as highly talented despite having attained only above-
average scores on IQ tests (see Renzulli, 1978), and (b) data collected from our pilot district. With this evidence in hand we were able to present a comparable example of identifying pools of students using alternative criteria. We were also able to show that these students experienced success using the project curriculum, the quality of which was further supported using teacher testimony. Second, in preparing teachers for their role in the identification process, we carefully constructed a training module that used multiple examples of the ways giftedness might manifest in rural communities, recognizing and honoring out-of-school gifts, and then called on the teachers to provide first-hand accounts and descriptions from their own classrooms.

**Illustrative Vignette: The Cut-Off**

“But we can’t go below the cut-off!” This was the refrain from teachers and administrators in one of our districts the first year they participated in the grant. To increase the number of students eligible for gifted education, we provided a universal screener for all second graders in participating districts and provided a place-conscious professional development for second-grade teachers who would use a validated instrument to assess students’ strengths. At the conclusion of this work, we met with school leaders to make recommendations based on data using local norms.

We were at the identification meeting and, after presenting all of the testing data, the assistant superintendent said once again: “We can’t go below the cut-off.” He explained that the district adheres to a strict “cut-off” score and uses the 96th percentile on national norms to determine which students were included in gifted education. After a long conversation, we determined the concerns of these educators were political in nature. “What will we tell parents?” was a question asked more than once at that first meeting. Additionally, they were concerned about the quality of a program that allowed for students not meeting that “gold standard” cut-off score. They accepted placement of a few more students in the gifted program for that first year, but not many.

Fast forward to the second identification meeting a year later. This district had been assigned to the control group, so they did not have access to the curriculum, but they did have a handful of students who they had (perhaps reluctantly) admitted to the program. And they were doing great! At the second identification meeting, the two gifted teachers who could testify to that success were present as well as the newly-appointed district coordinator. However, after we presented the data for the second cohort, the district coordinator fell in line with the county mantra and started talking about the cut-off score and questioning the validity of local norms.

Exasperated, she said to grant staff, “You just don’t understand the kinds of challenges our kids have here.” She had tears in her eyes. This wasn’t just about politics. She wanted to advocate for these children. She saw them. She knew them, and she knew the county. Gently, the co-PI replied, “That’s the whole point of this! We know that some of those challenges can make it more difficult to recognize a child’s gifts and talents. That’s why we look at local norms. We want to find those kids who might get missed by a 96th percentile when they’re being compared to kids in the rich suburbs of our state.” We talked more about the big ideas of the grant, and the district ended up accepting nearly twice as many students from our recommended list as they had in the previous year.

At the end of the first meeting, we were concerned this district would withdraw from the study. A year later, the identification meeting ended in heartfelt tears and hugs (on both sides of the proverbial table). It was difficult to disrupt a rigid conception of giftedness, but, over time, the school personnel involved realized the cut-off score was indeed arbitrary and no longer the gold standard in identifying students.

**Teacher Time and Expertise**

The second obstacle we faced was the reality of limited resources in the participating rural schools related to teacher time and expertise. Some districts had only one gifted resource teacher serving seven or eight sites; in others, teachers in general education classrooms were tasked with differentiating instruction without having been provided specific training on the learning characteristics of gifted students or the pedagogical strategies to address their learning needs. Gifted education teachers were often spread so very thin (covering great distances and serving multiple schools and grade levels) that they only had minimal time to devote to each group of students. Teachers in general education classrooms were sometimes simply provided with a list of students “eligible for services” with no direction for services, no advice on how to accelerate or enrich
existing curriculum, no pre-structured curricular resources, and no support staff to help them develop or locate additional resources.

For the second challenge, we did not have the funds to address personnel shortages nor to develop content expertise directly through extended professional development; therefore, we provided curriculum that addressed these challenges. The curriculum included four place-based language arts units: poetry and folklore units for third-grade gifted students and research and fiction units for fourth-grade gifted students. The curriculum was based on the most defensible models of gifted education, with the models already integrated so the teachers would not have to engineer the integration. Within the curriculum documents we provided extensive directions for implementation (e.g., ways to group students based on performance on formative assessments); careful explanations of all principles, generalizations, and concepts within the curriculum; and links to all needed resources. We included clear directions to help ensure viable implementation of the curriculum.

**Illustrative Vignette: Professional Development**

In the first year of implementation we noted that the third-grade teachers in one school district seemed overwhelmed and a little inconvenienced they had chosen (or been chosen) to participate. They were unfamiliar with the concepts and relatively apathetic at the end of the training. We worried they might not implement the lessons with fidelity.

However, while providing professional development to teachers across all treatment districts the following year, we noticed an overwhelming attitude change in the district where teacher response had been so disappointing after training in Year 1. All the teachers in the districts were on board with the curriculum in this second year, whether they were the new teachers who would be teaching the students in fourth grade or third-grade teachers who would be teaching to a new cohort.

In the second year, we asked two teachers from the first year to describe their experiences with the curriculum. Based on their one year of actual hands-on use of the curriculum, teachers demonstrated much more investment in the project. The returning teachers who had experience with the curriculum were energized and asked numerous questions about the curriculum and the fourth-grade units being introduced. The partnership between grant staff and teachers was also strengthened during the training sessions, which encouraged teachers and district personnel to reach out to grant staff to ask questions or ask for more resources during implementation. During the second year of curriculum implementation, the gifted coordinator was so pleased with the results that she committed district funds of $10 per student to print students’ fiction stories, in color, in a hardback book.

In a second school district, the fiction unit was the last unit taught in fourth grade. The teachers were eager to see that the students recognized the quality of their work, so they ordered each student a copy of his/her story in a hardcover book form. The printing took longer than expected and the students’ stories did not arrive until the students were already on summer break. The two fourth-grade teachers drove to each student’s house during the summer to deliver the books. The students loved it; one student was so excited to see her book, she expressed that this was the first time she saw herself as a writer. The teachers shared with us pictures of their students with their books during the training at the beginning of the next school year. The excitement from both students, teachers, and gifted coordinators showed an enhanced interest in and commitment to the curriculum.

**Expectations for Students**

Expectations for Students

Without adequate resources for gifted education, general education teachers were often asked to do the work of a gifted resource teacher. General education teachers were less familiar with enrichment strategies designed for gifted learning, thus leading to the third challenge: teachers’ concerns about students’ abilities which created a challenge in implementing the curriculum with fidelity. Teachers in rural schools with limited resources are more likely to be faced with the challenge of ensuring that their students meet minimum standards on state tests due to the achievement gap between low-income students and those from middle- or upper-income families (Plucker, 2013). Only about one-third of teachers report any training (pre-service or in-service) in the area of understanding gifted students or creating curriculum for gifted students (Farkas & Duffett, 2008). Limited staff development resources are likely to have been used to provide training and coaching to further teachers’ skill development in meeting the needs of low-achieving students (Callahan & Azano, 2019). Given these realities, it is not hard to
understand that the overwhelming messages of what students cannot do would be more dominant in teachers’ thinking about instructional outcomes.

Teachers’ expectations were addressed in two ways. First, the curriculum we provided was deliberately structured to contain literature passages that were above grade level in the traditional measures such as Lexiles, but also in terms of the depth and complexity of the ideas reflected in the literature pieces. Second, we structured formative assessments and the results of those assessments to align with multiple levels of students’ current understanding and achievement. This strategy made the matching process more data-driven and less dependent on teachers’ inherent expectations. We also adapted each unit to the specific community in which the curriculum was being implemented by varying literature and resources used to teach concepts in an attempt to make activities more relevant to the students in the project. By giving the students an immediate and significant connection with the tasks, the probability of high-level accomplishments early in the units increased and teachers could observe the possibility for high-level performance throughout the rest of the unit.

Illustrative Vignette: Sensational Short Stories

During a classroom observation in one school, the instructor finished her lesson early because the students wanted to share their completed short stories from the previous unit with us. The students, and the teacher, were so excited to share their accomplishments! The teacher went above and beyond to instill pride in her students for their work, and that ownership meant everything to the students. Each story was typed, included a cover page, a dedication page, a summary, an “about the author” page, and an “about the illustrator” page. One by one, students sat beside a grant staff member, most of them beaming with pride, and shared their stories. They explained what they wrote about and shared their favorite illustrations. We asked questions (e.g. “How did you create your monsters?” or “What made you want to write about a dog?”) about each story and the students were bursting with enthusiasm to explain and talk about the process. However, the pride didn’t end there. The two classroom instructors were emotional as they talked about the sustained effort students put forth in creating their stories. As we were leaving the school, office staff asked if the students shared their stories and they, too, raved about how beautiful the work was and how impressed they were.

Fidelity of Implementation

The final challenge was also related to fidelity of implementation (i.e., the degree to which an intervention is implemented as intended). We found challenges related to teachers’ fidelity due to the oppressive influence of state assessments and their influence in dictating curriculum and instruction across classrooms. The influence of high-stakes testing in classrooms has been widely documented (see, for example, Ritt, 2016; Schlechty, 1997; Zemelman et al., 1998). When studying teachers’ perceptions of the impact of high-stakes testing, Abrams et al. (2003) found that a majority of teachers reported state testing has led them to compromise their conceptions of what constitutes best practice. Research in gifted education specifically verifies that (a) both teachers and students report feeling tremendous pressure associated with high-stakes testing; and (b) the stress felt by teachers, especially in lower-resourced schools, influences them to emphasize drill and practice in their curricular and instructional choices.

To increase fidelity, we took two specific steps. First, in developing the units for use in the classroom, we included the specific standards from the state language arts requirements with each lesson so teachers could feel comfortable that their students would be learning the skills and content necessary for success on the state assessments. By directing teachers’ attention to the connection between the goals and objectives in each unit and the types of outcomes that would be measured on the state assessment we were able to reduce teacher anxiety about spending time on lessons not in the “textbook” for the grade level. While state standards were addressed in the units, the lessons and outcomes were designed so students would understand and be able to use information to perform thinking tasks at the analysis and synthesis level and write at an advanced level across genres (e.g., short story, fable, fairy tale, poem, research paper). Second, we used data from the pilot district (e.g., examples of student products) to raise teacher expectations of what the students might accomplish as a result of participation in the project, and we used testimony from the pilot teacher to verify the achievement of both minimum and enriched objectives.
Illustrative Vignette: Teacher Fidelity

Teachers face challenges outside the classroom due to environmental factors and policy decisions that may interfere with implementation of curriculum that does not strictly conform to district-level pacing guides or curricular documents. For example, in one school district, school was canceled due to weather frequently, which created additional pressures to stick with the school curriculum to avoid any complaints of not being responsible in the goal of successful student performance on state assessments. In attempting to ensure completion of lessons regardless, teachers in several schools pushed back instruction of the fall unit later than expected, but that caused the spring unit to remain complete.

Teachers and grant staff worked together to find effective ways for completing the units. Grant staff provided models and revised lessons for condensing content to focus on big ideas. In some cases, teachers gave up their planning periods to provide extra instruction so they could complete the units with the students. Even with the best intentions, we were unable to remedy all the fidelity challenges across the board. However, to some degree, we were able to modify the curriculum as needed so that teachers could implement the lessons, despite working in a compressed period of time.

Discussion & Implications for Rural Education Policy and Practice

In many ways the challenges of providing appropriate services to gifted students parallel those of serving gifted students in any setting, but the particular circumstances for rural schools in low-income areas exacerbate the influence of the challenges. For example, teachers across the nation often lack the background from their pre-service programs in meeting the educational task of providing challenge to gifted learners. In communities with more resources, however, schools are more able to provide professional development, peer collaboration opportunities, and resources that can be shared among colleagues within closer proximity of one another. Additionally, the smaller population of identified gifted students in rural communities means difficulty in establishing groups of peers with similar potential and presents the dilemma of where to focus valuable planning time, especially when faced with achievement gaps and low performance.

Promising Findings

Despite the challenges noted, we were able to find ways to communicate the foundational principles of the project using an iterative and responsive model that led to our rural school partners largely embracing its tenets. As we addressed the goals of persuading teachers of the existence of potential for gifted behaviors in their classrooms and increasing the level of challenge and rigor of instruction for gifted students, we found several common strategies were important. The first of these was presenting evidence in terms and through vehicles that were relevant to the teachers. This meant finding specific and believable examples of gifted behaviors in rural populations that would illustrate for the teachers what an alternative conception of giftedness might be (beyond the Einstein image). We used these approaches to establish trust and to demonstrate our commitment to rural gifts and talents beyond the stereotype. With this approach, and the eventual success of the initial pool of students identified with alternative strategies, faith in our approach to identification grew.

The second was providing curriculum and instructional materials that were both engaging and challenging for students, but also clearly reflected the environment of the students. These tactics led to early successes that were visible to teachers. This effort was also helped by the testimony of early adopters—starting small gave us the opportunity to develop, revise, and tailor the curriculum to rural settings and modify as suggested by teachers and in observations of their implementation. By working closely with a pilot teacher and a small number of treatment teachers at the onset of the program we were able to document success and bring testimony from teacher to teacher. In the beginning with small and clearly noticeable success, teachers could see the explicit opportunity for students to master skills and knowledge for state assessments, but also to go well beyond that level of achievement. Subsequent post-test achievement levels by all students in the treatment group—with the project students achieving at the same level as the traditionally-identified students—further documented the success observed by teachers. These findings can now be used to demonstrate that adding students to gifted programs using alternative strategies strongly refutes assertions that these students (i.e., rural students scoring below the 96th percentile nationally on standardized tests)
are not capable, that they cannot keep up, or that they cause a program to be watered down.

Finally, by offering a curriculum with clear pre-assessments and formative assessments, we provided teachers with a strategy through which all students could be served at the level warranted by current levels of achievement. Hence, teachers without experience in curriculum development for gifted students did not need to struggle to produce sound instructional interventions, and they could tailor the interventions we provided with ready-made application of assessment information.

An Unintended Outcome

In any study, the effects on schools, teachers, and students in control groups are often not given attention. However, in this study we generated data on the identification and programming efforts in control schools. We found that in control school districts, administrators and teachers showed an increased interest in gifted curriculum. The general education teachers in control schools (some who were “volunteered” to assist with the gifted students) often inquired about best practices in instruction for gifted students when grant team members visited their schools for observations and/or deliveries of assessment instruments. In one of those districts, for example, there was neither a formal nor informal program for gifted students prior to their participation in the Promoting PLACE grant. However, after the identification process was complete, a team of three veteran teachers developed an after-school program in which gifted students engage in community activities (e.g., a student designed charity for dog rescues). These teachers even arranged late bus pickups for their students. With the last update, the gifted students were meeting once a week after school to participate in the program. The team of teachers have tapped into their own resources as local citizens and encouraged students to explore shared interests while investing in community service. Despite being in a control district where no formal curriculum or professional development was provided, these districts continue to seek out ways within their means to engage and instruct gifted students. Simply bringing attention to the possibilities for talent development through the identification process and has generated interest and willingness to develop more options instructionally and programmatically.

Practical Takeaways

There are several practical takeaways for rural school leaders. For one, success in broadening the scope of understanding of gifted learners requires attention to starting where teachers and administrators are in terms of their beliefs and providing credible and workable alternatives based in the particular world where they live and work. Second, teachers do not have the time (and, often, have not had adequate preparation) to develop curriculum specifically for gifted learners. Teachers need access to high-quality, challenging curricula in all disciplines that provide them with specific assessment information—and what to do with it—so that all students can learn at the highest level of their capability. The curriculum must be viewed as compatible with existing expectations for assessments and provide access to resources for implementation. Finally, teachers need to see success early in the implementation of a new curriculum or program. The word from their peers of the possibilities will encourage early adoption, but the “proof in the pudding” will be what they see in their own classrooms.

References

Azano, A. P. (2014). Gifted rural students. In J. Plucker & C. Callahan (Eds.). Critical issues in gifted education: What the research says (2nd ed., pp. 297-304). Prufrock Press.

Azano, A.P., Callahan, C.M., Brodersen, A., & Caughey, M. (2017). Responding to challenges of gifted education in rural communities. Global Education Review, 4(1), 1-16.

Abrams, L., Pedulla, J., & Madaus, G. (2003). Views from the classroom: Teachers’ opinions of statewide testing programs. Theory into Practice, 42, 18–29. https://doi.org/10.1207/s15430421tip4201_4

Burney, V. H., & Cross, T. L. (2006). Impoverished students with academic promise in rural settings: 10 lessons from Project Aspire. Gifted Child Today, 29(2), 14-21. https://doi.org/10.4219/gct.2006-200

Callahan, C. M., & Azano, A. P. (2019). Place-based gifted education in rural schools. In S. Smith (Ed.) Handbook of Giftedness and Talent Development in the Asia-Pacific. Springer
Eppley, K., Azano, A. P., Brenner, D., & Shannon, P. (2018). What counts as evidence in rural schools?: Evidence-based practice and practice-based evidence for diverse settings. *The Rural Educator, 39*(2), 33-37. https://doi.org/10.35608/ruraled.v39i2.208

Farkas, S., & Duffett, A. (2008). *Results from a national teacher survey.* Thomas B. Fordham Institute.

Gruenewald, D. A. (2003). The best of both worlds: A critical pedagogy of place. *Educational Researcher, 32*(4), 3-12. https://doi.org/10.3102/0013189X032004003

Hébert, T. P., & Beardsley, T. (2001). Jermaine: A critical case study of a gifted Black child living in rural poverty. *Gifted Child Quarterly, 45*, 85–103. https://doi.org/10.1177/0012275501048003

Lohman, D. F. (2013). Identifying gifted students: Nontraditional uses of traditional measures. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education: Considering multiple perspectives* (pp. 112-127). Routledge.

National Center for Education Statistics. (2019). *Concentration of public school students eligible for free or reduced-price lunch.* http://nces.ed.gov/programs/coe/pdf/coe_clb.pdf

Peters, S. J., Rambo-Hernandez, K. E., Makel, M. C., Matthews, M. S., & Plucker, J. A. (2019). The effect of local norms on racial and ethnic representation in gifted education: A modeling study. *AERA Open.* https://doi.org/10.1177/2332858419848446

Plucker, J. A. (2013). Students from rural environments. In C. M. Callahan & H. L. Hertberg-Davis (Eds.), *Fundamentals of gifted education* (pp. 301–314). Routledge.

Rasheed, M. (2019). Context and content in rural gifted education: A literature review. *Journal of Advanced Academics, 31*(1), 61-84. https://doi.org/10.1177/1932202X19879174

Renzulli, J. S. (1978). What makes giftedness? Re-examining a definition. *Phi Delta Kappan, 60*, 180-184, 261.

Ritt, M. (2016). The impact of high stakes testing on the learning environment. https://sophia.stkate.edu/msw_papers/168

Schlechty, P. (1997). *Inventing better schools: An action plan for educational reform.* Jossey-Bass.

Showalter, D., Hartman, S. L., Johnson, J., & Klein, B. (2019). *Why rural matters 2018-2019: The time is now.* Rural School and Community Trust.

Stambaugh, T., & Wood, S. M. (2015). *Serving gifted students in rural settings.* Prufrock Press.

Young, B. A. (2003). Local education agency universe survey, 2001–02. *U.S. Department of Education.* National Center for Education Statistics.

Zemelman, S., Daniels, H., & Hyde, A. (1998). *Best practice: New standards for teaching and learning in America’s schools.* Heinemann.