Teacher Attitudes Towards Gifted Education in Rural School Districts

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TEACHER ATTITUDES TOWARDS GIFTED EDUCATION IN RURAL SCHOOL DISTRICTS

A Specialist Project
Presented to
The Faculty of the School of Teacher Education
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree Specialist in Education

By
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May 2018
TEACHER ATTITUDES TOWARDS GIFTED EDUCATION
IN RURAL SCHOOL DISTRICTS

Date Recommended April 11, 2018

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Dean, Graduate Studies and Research  Date
I dedicate this thesis to my husband, Mike Sheffield, for always supporting me in my ongoing journey as an educator.
ACKNOWLEDGMENTS

To begin, I would like to thank Dr. Julia Roberts, Mahurin Professor for Gifted Education, Executive Director of The Center for Gifted Studies at Western Kentucky University, and my advisor and specialist project committee chair, for believing in my abilities as an educator and continually providing me multiple opportunities to grow and learn as a professional in the field of gifted education.

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The purpose of this study was to determine the attitudes of teachers in rural locales towards giftedness and gifted education. Gagné and Nadeau’s (1991) Opinions About the Gifted and Their Education was used as the survey instrument. A total of 78 teachers from four public school districts in Kentucky classified as rural participated in the study. The respondents indicated slightly positive attitudes toward the need for specialized instruction for gifted students and the social value of giftedness but slightly negative mindsets towards acceleration. These results as a whole mirrored the findings of several previous studies utilizing the same survey instrument. However, individual teacher’s attitudes varied widely, with some very negative responses and some more positive, rendering the results determined using averaged scores from the full sample a somewhat inaccurate indicator of broad-scope, overall teacher mindset towards gifted education. When comparing the attitudes towards acceleration of teachers who had graduated from the district in which they teach to those who graduated from a district outside of where they teach, a significantly more negative attitude was indicated in teachers who remained within their home districts. Further study is recommended to determine if this could be an influence of more traditional and anti-intellectual mindsets often found in rural communities and if it has any effect on the quality of services and programming opportunities available to gifted students in rural locales.
Introduction

Gifted students exist across different socio-economic demographic groups in the United States as well as in different geographical areas. High-ability learners can hail from high-density urban areas, leafy suburban enclaves, or far-flung rural communities. Nearly 50 percent of all public-school districts in the United States are located in small towns and rural communities, and nearly 20 percent of all public-school students - over 9,000,000 - live in rural areas as defined by the National Center for Education Statistics (U.S. Department of Education, 2014; NCES, 2006). Gifted students in rural settings are underrepresented in the body of research in fields of both rural education and gifted education (Azano, Callahan, Missett, & Brunner, 2014; Puryear & Kettler, 2017). In the last few decades, much attention has been paid to barriers of race, gender, and poverty in identifying and providing opportunities to gifted students, but little research has been focused on geographical barriers endemic to rural locales (Stambaugh, 2015; Colangelo, Assouline, & New, 1999).

Enrollment in rural schools in the United States continues to grow, out-pacing non-rural enrollment growth, with ever-increasing rates of poverty, diversity, and students with special needs (Johnson, Showalter, Klein & Lester, 2014). As the student population in rural areas continues to increase and diversify, it is important for researchers to examine the unique challenges inherent to this population in order to ensure equity in identification and services to gifted students in these locales.

Regular education classroom teachers have an influential role in whether the needs of gifted students are effectively met in public schools (Szymanski & Shaff, 2013). They function both as gatekeepers, through teacher nomination of students for referral for
gifted identification, and as facilitators, planning the curriculum and delivering instruction to gifted students within their mainstream classrooms. To effectively address the needs of gifted students, teachers must understand the characteristics and needs of gifted students and reject myths about giftedness that persist in the field of education (Cross, 2002). Although approximately 31 percent of all public-school teachers are employed in rural schools (Jimerson, 2003), little research exists specific to rural teachers’ perceptions and attitudes towards gifted students and gifted education (Azano et al., 2014).

**Literature Review**

Although varying definitions of *rural* are seen across the literature, the most commonly used definition for locale in education research is the National Center for Educational Statistics Urban-Centric Codes (2006), as described in Table 1.

Table 1

*NCES Urban-Centric Locale Categories for Rural Classification*

<table>
<thead>
<tr>
<th>Locale</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural - Fringe</td>
<td>Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster</td>
</tr>
<tr>
<td>Rural - Distant</td>
<td>Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster</td>
</tr>
</tbody>
</table>
Rural - Remote | Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster

Note: From Definitions, by National Center for Education Statistics, 2006, par. 6.

Rural America is not a singular set of geographical locations or demographic profiles. Rural student populations vary as low as 6 percent in some states and as high as 78 percent in others (Puryear & Kettler, 2017). Hamilton, Hamilton, Duncan, and Colocousis (2008) break down American rural communities into four distinct categories: (a) Amenity Rich communities with beautiful scenery and recreational activities that attract outsiders, (b) Declining Resource Dependent communities that once relied heavily on agriculture, manufacturing, and/or extraction industries that are in decline, thus experiencing population loss, (c) Amenity/Decline communities that were dependent upon natural resources that are depleted but may have other amenities that could lead to growth in population, and (d) Chronically Poor communities with inadequate resources and infrastructure due to decades of economic deprivation. Variations in social culture and value systems within each type of rural community affects inhabitants’ mindsets towards formal education and the establishment of advanced educational opportunities for gifted students (Mattingly & Schaefer, 2015). For example, communities can question investment in gifted education, which may be seen as encouraging students to move away to pursue college and careers (Howley, Rhodes, & Beall, 2009; Lawrence, 2009). There is a mindset in some rural communities that gifted education programs set apart an elite group of highly capable students who will then be siphoned away, robbing support from the local area’s economic future (Jones & Southern, 1992). The broad variation in the socioeconomic profiles of rural areas underpin complex cultural dynamics, making it
nearly impossible to generalize research findings as applicable to rural communities across the United States.

The makeup of the rural student population in the United States is overwhelmingly white, but these data do not accurately represent the demographic makeup of rural schools as a whole. If viewed on a national scale, 25 percent of students in rural areas are non-White, and this percentage continues to increase at a rapid rate (Howley et al., 2009; Johnson, Showalter, et al., 2014). Demographics vary widely in different geographic regions and states. For example, in the South, there are pockets of rural schools in poverty with majority African American populations, Hispanic populations in rural schools in the Southwest are rapidly increasing, and many rural school populations are heavily Native American and Hawaiian and Pacific Islander in other regions (Lavalley, 2018; Showalter, Klein, Johnson, & Hartman, 2017). By 2009, several states, including Hawaii, New Mexico, Alaska, Arizona, and California, reported minority students made up over 50 percent of their rural student population (Howley, et al., 2009).

As a group, rural students tend to have different educational and life experiences compared with their urban and suburban peers (Lewis, 1999). Questions and examples on standardized tests often refer to resources or situations that exist in everyday life in more urbanized settings but are rare in rural ones (Lewis, 1999). This bias can lead to lower scores on tests used for gifted identification purposes, thus limiting opportunities for rural children regardless of culture (Spicker, Southern, & Davis, 1991). The persistent underrepresentation of minority and/or low-income students in gifted programs (Ford 2010; Ford, 2013; 1998; McBee, 2006; Ramos, 2010) should also be addressed within the context of rural school districts as distinct from those in urban and suburban areas.
Rural Schools: Unique Challenges Related to Gifted Education

Researchers have noted many challenges to adequately serving the needs of gifted and talented students within impoverished and geographically-isolated rural school districts (Azano et al., 2014). Rural schools face many of the same barriers to meeting the academic and social-emotional needs of gifted students from low-income and poverty backgrounds as do suburban and urban schools. However, many rural schools face additional challenges such as geographical barriers, lack of adequately trained teachers, fewer program options, elevated transportation costs, and disproportionately lower levels of national financial support than urban and large suburban communities (Colangelo, Assouline, & New, 2001; Cross & Burney, 2005; Johnson & Strange, 2007). Plucker (2013) identified poverty, rural provincialism, limited financial and human resources, and negative perceptions of gifted programs as factors that challenge delivery of services for gifted students in rural schools. The rate of child poverty in rural communities is, on average, higher than in urban and suburban areas (Malhoit, 2005) thus in many U.S. states, the term *rural* has become synonymous with *poor*. These factors contribute to decreased opportunities for gifted students, both academically and socially, in rural communities with high levels of poverty.

Limited funding is a pervasive reality in rural schools (Howley et al., 2009; Malhoit, 2005). This problem has been exaggerated since the 2008 recession, with 34 states decreasing their financial support to rural schools (Richards & Stambaugh, 2015). Rural school districts designate proportionately less funding for gifted programs than do their suburban and urban counterparts (Moon, Callahan, Oh, & Hailey, 2012; Richards & Stambaugh, 2015). In fact, teachers of the gifted can be perceived as an unaffordable and
unnecessary luxury; therefore, human and financial capital are often redirected away from high-achieving students to those students needing academic remediation and intervention in order improve their performance enough to satisfy benchmark indicators for accountability purposes (Azano et al., 2014; Colangelo et al., 2001). It is necessary to gain understanding of rural teachers’ mindsets towards gifted education in order to inform professional learning and resource allocation decisions that will improve the quality of opportunities available to gifted students in those regions.

Rural schools generally pay teachers less, which leads to difficulties recruiting and retaining experienced and highly-qualified teachers (Arnold, Newman, Gaddy & Dean, 2005; Croft, 2015; Jimerson, 2003). Therefore, rural schools often have a higher proportion of new teachers (those in first or second year of teaching) as compared to schools in small towns and suburban areas (Mattingly & Schaefer, 2015). Additionally, small student populations equate to smaller teaching staff, which can limit course offerings available to advanced students. Funding additional staff is often not an option, and requiring existing staff to pursue the advanced coursework necessary to achieve multiple certifications is often cost-prohibitive and hindered by limited access geographically as compared to suburban and rural areas (Lavalley, 2018). The lack of ability to maintain adequate teaching staff in many rural schools further exacerbates the challenge of providing appropriate service options to gifted students.

Reininger (2012) found that 80 percent of U.S. teachers remain within a 13-mile radius of their hometown when seeking employment. “Rural schools often operate under a de facto ‘grow your own’ system in seeking and developing new teacher talent” (Lavalley, 2018, p. 15) relying on the locally available pool of teacher candidates. Often
these teachers grew up in the local community and attended the same rural school districts in which they are now employed as teachers. Research has indicated that rural teachers across the United States are more likely to have graduated from a less selective college than teachers in other locales (Fowles, Butler, Cowen, Streams, & Toma, 2014; Player, 2015), and better qualified teachers from rural areas tend not to return to their hometowns. Rural schools report increased difficulty in filling teacher vacancies at the middle and high school levels, especially for STEM-related positions (Player, 2015). Having hard-to-fill positions can lead administrators to retain poor-performing teachers due to the difficulty in finding qualified replacements (Johnson, Mitchel, & Rotherham, 2014). Less-qualified teachers, in turn, then develop the next generation of teacher candidates from that region, continuing the cycle. Myths and misconceptions about the characteristics and needs of gifted students may remain unchallenged without an influx of more highly-qualified teachers with appropriate training in gifted education. Research is needed to explore if this geographically-circular teacher pipeline contributes to the perpetuation of negative perceptions of gifted education in rural areas.

**Attitudes towards Gifted Education and Gifted Students**

Understanding the attitudes of teachers towards gifted education is important, as they implement the instructional practices necessary to ensure gifted students are appropriately challenged in their classrooms and schools. Scholars in the field of gifted education have been studying the attitudes of regular education teachers towards gifted students and gifted education since the mid-20th century (Justman & Wrightstone, 1956; Peachman, 1942; Tannenbaum, 1962) with no clear positive or negative results emerging as a whole. Some research suggested teachers generally had positive attitudes overall
towards gifted learners (Gagné, 1983; McCoach & Siegle, 2007). Other studies found teachers had positive attitudes to most aspects to gifted education such as the social value of giftedness and the need for special academic accommodations such as special classes but concurrently retained a more negative mindset towards grade acceleration (Allodi & Rydelius, 2008; Lassig, 2009; Perković Krijan, Jurčec, & Borić, 2015; Watts, 2006). One study focusing explicitly on teacher attitudes towards acceleration for gifted students (Siegle, Wilson, & Little, 2013) found the majority of teachers sampled at a summer conference on gifted education felt positively about acceleration, but more broad-based samples of public school teachers at large tended to express more negative views (Jones & Southern, 1992; Rambo & McCoach, 2012). Some results showed teachers harbored more negative attitudes in general towards giftedness (Cramond & Martin, 1987; Geake, & Gross, 2008), while others showed mixed results, with both positive and negative attitudes towards the gifted (Copenhaver & McIntyre, 1992; Megay-Nespoli, 2001; Morris, 1987; Rubenzer & Twaite, 1979). Although the McCoach and Siegle (2007) study showed teachers had an overall neutral attitude towards gifted education, there was quite a bit of variability among the individual teachers’ responses. Some teachers had strongly positive attitudes while others were extremely negative, leading the researchers to conclude that attitudes towards gifted education would be more accurately assessed on an individual basis as opposed to generalized as a whole.

Some studies focusing exclusively on attitudes of preservice teachers towards gifted students have suggested a positive effect on teacher attitudes after teachers received information and training on the needs of gifted students (Morris, 1987; Plunkett & Kronborg, 2011; Troxclair, 2013). However, Baudson and Preckel’s (2013)
comparative study of prospective and practicing teachers did not identify any differences in attitudes towards gifted students, counteracting the idea that more training and exposure to gifted students leads to more positive attitudes, which mirrors McCoach and Siegle’s (2007) assertion that the majority of prior studies have shown teachers’ implicit mindsets towards the gifted tend to remain stable throughout their career.

The search for predictors of teachers’ attitudes towards gifted education has also yielded ambiguous results. Jones and Southern (1992) found that teachers in rural school districts expressed more negative perceptions towards acceleration than those in urban schools. In a survey of Canadian teachers, Bégin and Gagné’s (1994) research isolated two factors, socioeconomic status and contact with giftedness, as significant predictors of positive attitudes towards gifted education. Grayson and Hall (1992) also found respondents with higher socioeconomic status showed more positive attitude towards giftedness. However, McCoach and Siegle (2007) noted that most existing studies either failed to use a random sample or a representative sample of teachers, rendering results that are not generalizable to any broad population of teachers. This further highlights the need to establish a research base focused on teachers in rural locales, while also selecting random samples of teachers from areas with similar demographic and/or socioeconomic characteristics in order to produce results which can be reasonably generalized to teachers in similar rural areas.

The existing body of research literature suggests an overall sense of ambivalence in teachers towards gifted students and gifted education (Cross, Cross, & Frazier, 2013). Anti-intellectualism occurs in many subsets of American society, including rural culture (Howley, Howley, & Pendarvis, 1995). Children are encouraged to do their best in
school, but an implicit message lies underneath that gifted students should not excel beyond the capabilities of their classroom peers - they should not be too smart (Cross, 2002). Many teachers express concerns about gifted children not fitting in socially if accelerated - a fear connected to society’s tendency to reject those seen as outsiders (Geake & Gross, 2008). Gifted students’ behaviors may not fall within those considered “normal,” a range narrowed even further by traditional cultural and religious beliefs in rural communities and pressure to not stand out or excel can be more extreme (Lawrence, 2009). The egalitarian nature of rural society creates concern over gifted education being elitist (Gross, 1997). Teachers experience these mixed messages (Cross et al., 2013) which may explain support for gifted services often coming with the caveat “only if it does not result in resources being taken away from classes of average students” (Grayson & Hall, 1992, p. 22). Another aspect of ambivalence towards gifted education services in rural areas is the necessity for students to eventually leave the community to pursue higher education opportunities (Mattingly & Schaefer, 2015). A deeper examination of how these cultural beliefs and messages affect teacher attitudes towards gifted education is needed.

**Purpose**

Despite the fact there are over 400,000 teachers in rural areas of the United States (Jimerson, 2003), no current research specifically focuses on attitudes of teachers in public schools in rural communities towards giftedness and gifted education. The purpose of this present study is to examine teachers’ attitudes towards gifted students and gifted education in rural schools and determine any differences in attitudes between teachers
who live in and/or graduated from the rural districts in which they teach, and those who do not.

Research questions for this paper include the following:

Research Question 1: What are teachers’ attitudes toward gifted students and gifted education in rural areas?

Research Question 2: What differences in attitudes towards gifted students and gifted education exist between teachers who live within the rural districts in which they teach and those who do not?

Research Question 3: What differences in attitudes towards gifted students and gifted education exist between teachers who graduated from the rural districts in which they teach and those who did not?

Method

The purpose of this study is to investigate teachers’ attitudes towards giftedness and gifted education within public school districts categorized as rural by NCES, to determine if any differences in attitudes exist between teachers who live within the rural districts in which they teach and those who do not and between teachers who graduated from the rural districts in which they teach and those who did not.

Sample

The population for this study consisted of a convenience sample of inservice teachers (n = 78) working in elementary, middle, and high schools in four different, nonadjacent public school districts in Kentucky categorized as either Rural-Fringe or Rural-Remote according to the NCES (2006) locale codes. The districts were drawn from different regions in Kentucky (two in the South Central area, one in the North Central
region, and one in the far Northern sector). Although all four districts are categorized as rural and have predominantly White student populations, there are distinct differences in their demographic and socioeconomic profiles, such as districts having large differences in population (i.e., from 647 to 14,986) or percentages of non-White students (i.e., 6% to 33%) (see Table 2).

Table 2

Student Demographics 2016-17

<table>
<thead>
<tr>
<th>District</th>
<th>Total Enrollment</th>
<th>Low Income (F/R Lunch Eligible)</th>
<th>White</th>
<th>African-American</th>
<th>Hispanic</th>
<th>Asian</th>
<th>Two or more races</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>1,826</td>
<td>63.3%</td>
<td>94.0%</td>
<td>0.4%</td>
<td>4.1%</td>
<td>0.3%</td>
<td>1.2%</td>
</tr>
<tr>
<td>District 2</td>
<td>6,868</td>
<td>55.3%</td>
<td>66.9%</td>
<td>7.2%</td>
<td>20.2%</td>
<td>0.9%</td>
<td>4.5%</td>
</tr>
<tr>
<td>District 3</td>
<td>647</td>
<td>81.7%</td>
<td>73.4%</td>
<td>11.7%</td>
<td>3.6%</td>
<td>0.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>District 4</td>
<td>14,986</td>
<td>56.8%</td>
<td>69.1%</td>
<td>9.3%</td>
<td>9.1%</td>
<td>7.3%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

*Note: From District Report Card by Kentucky Department of Education, 2018.*

Demographic data collected from respondents (see Appendix) showed a mean of 12.81 years of teaching experience with a standard deviation of 8.95 years.

Approximately 97.5% of the teachers reported that their schools offered gifted programs while 2.5% reported that their schools did not. Slightly less than 79% of the respondents indicated that they worked with gifted learners on a regular basis; just over 21% indicated they did not. Just under 60% of the respondents indicated that they live within the rural
school district in which they work, while 40% commute from outside the community. One third of the teachers who responded were graduates of the districts in which they are currently teaching, while two-thirds graduated elsewhere.

**Procedure**

Approval from the Institutional Review Board was obtained prior to distribution of the survey. An email containing information about the purpose of the study, an informed consent statement, and a link to the online survey were sent to principals and/or district instructional supervisors to distribute to teachers under their supervision in participating schools and districts. No personal identifying information was collected from respondents.

**Description of Instrumentation/Measurement Procedures**

Teachers’ attitudes toward giftedness and gifted education were measured using the Gagne’ and Nadeau attitude scale, Opinions About the Gifted and Their Education (F. Gagné, personal communication, April 30, 2017), a 34-item questionnaire designed to measure six factors related to attitudes toward the gifted. All items on the scale were measured using a 5-point Likert-type scale, where 1 = *totally disagree* and 5 = *strongly disagree*. This survey originally categorized the 34 items into six subscales as follows: Scale 1: Needs and Support, Scale 2: Resistance to Objections, Scale 3: Social Value, Scale 4: Rejection, Scale 5: Ability Grouping, and Scale 6: School Acceleration (see Appendix for the survey instrument).

The researcher followed the example of other researchers and conducted exploratory psychometrics and data analysis. Reliability was calculated for the scales according to the scoring sheet provided by Gagne’ and Nadeau (F. Gagné, personal
communication, April 30, 2017). Some subscales had very low reliability (i.e., <.5) which led the researcher to question whether the results would be valid. Looking at prior research by McCoach and Siegle (2007) and Troxclair (2013), it was apparent that others had similar problems with psychometrics of the instrument.

**Results**

Based on the factor loadings, three main factors were determined (see Table 3).

The items in the first factor related to statements that placed a priority on meeting the needs of other students rather than focusing on individual gifted learners and was thus labeled Common Good. This subscale contains eight items and has a Cronbach’s alpha reliability of .635 in the present sample. The second factor comprised items focusing on grade skipping and was labeled Acceleration. This subscale contains five items and has a Cronbach’s alpha of .751 in the sample. The third factor focused on social perception and the value of providing accommodations and was labeled Value and Needs. This subscale contains five items and has a Cronbach’s alpha of .624 in the sample.

Table 3

*Subscales Used for This Study*

<table>
<thead>
<tr>
<th>Subscale 1: Common Good (8 questions, alpha = .635)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Special programs for gifted children have the drawback of creating elitism.</td>
</tr>
<tr>
<td>*6. When the gifted are put in special classes, the other children feel devalued.</td>
</tr>
<tr>
<td>12. We have a greater moral responsibility to give special help to children with difficulties than to gifted children.</td>
</tr>
<tr>
<td>*20. Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children.</td>
</tr>
</tbody>
</table>
*21. By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc.

23. The gifted are already favored in our schools.

26. Taxpayers should not have to pay for special education for the minority of children who are gifted.

30. Since we invest supplementary funds for children with difficulties, we should do the same for gifted.

Subscale 2: Acceleration (5 questions, alpha = .751)

*7. Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students.

8. Gifted children are often bored in school.

11. The gifted waste their time in regular classes.

*29. When skipping a grade, gifted students miss important ideas (they have “holes” in their knowledge).

34. A greater number of gifted children should be allowed to skip a grade.

Subscale 3: Value and Needs (5 questions, alpha = .624)

13. Gifted persons are a value resource for our society.

14. The specific educational needs of the gifted are too often ignored in our schools.

24. In order to progress, a society must develop the talents of gifted individuals to the maximum.

31. Often, gifted children are rejected because people are envious of them.

32. The regular school program stifles the intellectual curiosity of gifted children.
None of the three subscales showed strong correlations. There was a significant correlation between Acceleration and Student Needs (see Table 4). The low correlations imply that each subscale measures a distinctly different area relating to attitudes towards gifted students.

Table 4

**Correlation Between the Subscales**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Common Good</th>
<th>Acceleration</th>
<th>Value and Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Good</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceleration</td>
<td>.021</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Value and Needs</td>
<td>-.026</td>
<td>.261*</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

Data were compiled and analyzed with consideration of both mean scores and total scores. Overall, the views of the teachers in this study were mixed with slightly positive views of the social value of the gifted (i.e., importance of developing talents of gifted persons to benefit society) and the need for academic accommodations to support gifted (i.e., funds should be invested in gifted children, need for special services for gifted students outweighs perceived elitism) but a slightly negative view of acceleration (i.e., grade-skipping) as Table 5 delineates.
Table 5

Means, Minimum/Maximum Scores, and Standard Deviations for Full Sample

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Good</td>
<td>78</td>
<td>17.00</td>
<td>31.00</td>
<td>23.205</td>
<td>2.907</td>
</tr>
<tr>
<td>Acceleration</td>
<td>78</td>
<td>5.00</td>
<td>22.00</td>
<td>14.103</td>
<td>4.054</td>
</tr>
<tr>
<td>Values and Needs</td>
<td>77</td>
<td>9.00</td>
<td>25.00</td>
<td>18.468</td>
<td>3.351</td>
</tr>
</tbody>
</table>

High scores on the Common Good factor indicate negative attitudes towards the gifted – greater importance is given to the perceived needs of the student body at large than the specific needs of gifted students. The mean on the Common Good scale was 23.205, which, when taken in context of the range scores from 17.00 to 31.00 would suggest teachers were slightly less concerned about the perceived common good of all students and slightly more focused on the needs of gifted students. The highest possible score for this subset was 40, yet the maximum score in this sample was only 31, meaning the range of responses as a whole shifted towards a lower range of scores. If more teachers had chosen the neutral response of “undecided” (a score value of 3), a mean score of 24 would have been expected. Therefore, a mean of 23.205 shows slightly lower value is placed on the common good versus the needs of individual gifted students, suggesting a slightly positive mindset towards gifted education and rejection of the view it is elitist.

The Acceleration subscale had a possible maximum score of 25 and a mean of 14 and displayed the most variance of the three subscales. A high score on this factor indicates a positive attitude towards the acceleration. An examination of the frequency of scores showed that a greater number of teachers had a slightly negative view of
acceleration (see Figure 1), which was characterized as grade-skipping in this survey. If
the majority of teachers had chosen “undecided” (a score value of 3), the mean would
have been 15. Since it was 14, this group had a slightly more negative score.

Figure 1

*Acceleration: Frequency of Scores*

Values and Needs had a possible maximum score of 25. A high score on this
factor indicates a positive attitude towards the gifted. The mean for this sample was
18.468 which indicated a slightly higher social value of giftedness and interest in meeting
student needs. A few very strong negative scores pulled the mean down slightly;
however, there was a much greater number of positive scores. These positive scores still
fit the normal curve, although some of the responses did reach the highest possible score.
The mean was higher than expected if most teachers had answered “undecided” (a score
value of 3), indicating respondents felt more positively about the social value of giftedness and were more in favor of focusing on student needs.

An analysis of variance (ANOVA) was conducted to determine differences by (a) grade level(s) taught, (b) if teachers lived in the rural districts in which they taught, (c) if respondents had been personally identified as gifted, and (d) if close friends or family members had been identified as gifted. The only statistically significant differences were found when examining data for respondents who did or did not graduate from the rural district in which they taught and when comparing data from different districts surveyed for this sample (see Table 6).

Table 6

*Analysis of Variance by Graduate/Non-Graduate*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Good</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>12.410</td>
<td>1</td>
<td>12.410</td>
<td>1.478</td>
<td>.228</td>
</tr>
<tr>
<td>Within Groups</td>
<td>638.308</td>
<td>76</td>
<td>8.399</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>650.718</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acceleration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>110.006</td>
<td>1</td>
<td>110.006</td>
<td>7.237</td>
<td>.009  *</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1155.173</td>
<td>76</td>
<td>15.200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1265.179</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Values and Needs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>5.989</td>
<td>1</td>
<td>5.989</td>
<td>.530</td>
<td>.469</td>
</tr>
<tr>
<td>Within Groups</td>
<td>847.179</td>
<td>75</td>
<td>11.296</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>853.169</td>
<td>76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at < 0.05 level.
The data were split between teachers who graduated from the same rural district in which they teach and those who did not. Descriptive statistics are available in Table 7. Statistically significant differences were found between the two groups on the variable of acceleration. Those who did not graduate from the district in which they teach showed a higher, more positive attitude towards acceleration with a mean score of 14.94, compared to those who did graduate from the same district where they teach, with a mean score of 12.42.

Table 7

*Descriptive Statistics Graduates/Not Graduates*

<table>
<thead>
<tr>
<th>Graduate</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Good</td>
<td>52</td>
<td>17.00</td>
<td>31.00</td>
<td>22.923</td>
<td>2.983</td>
</tr>
<tr>
<td>Acceleration</td>
<td>52</td>
<td>8.00</td>
<td>21.00</td>
<td>14.942</td>
<td>3.567</td>
</tr>
<tr>
<td>Value and Needs</td>
<td>51</td>
<td>9.00</td>
<td>25.00</td>
<td>18.667</td>
<td>3.284</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Good</td>
<td>26</td>
<td>19.00</td>
<td>29.00</td>
<td>23.769</td>
<td>2.718</td>
</tr>
<tr>
<td>Acceleration</td>
<td>26</td>
<td>5.00</td>
<td>22.00</td>
<td>12.423</td>
<td>4.500</td>
</tr>
<tr>
<td>Value and Needs</td>
<td>26</td>
<td>9.00</td>
<td>24.00</td>
<td>18.077</td>
<td>3.509</td>
</tr>
</tbody>
</table>

An analysis of variance (ANOVA) was conducted for differences in responses from teachers from different districts. (see Table 8). When comparing teachers’ responses from the different districts, a significant difference was noted on the subscale for Values and Needs. Post-hoc analysis showed the only significant difference was between Districts 1 and 4 (M=4.2619, p = .034).
Table 8

Analysis of Variance of Responses by District

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>12.831</td>
<td>3</td>
<td>4.277</td>
<td>.496</td>
<td>.686</td>
</tr>
<tr>
<td>Within Groups</td>
<td>637.887</td>
<td>74</td>
<td>8.620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>650.718</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceleration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>80.589</td>
<td>3</td>
<td>26.863</td>
<td>1.678</td>
<td>.179</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1184.590</td>
<td>74</td>
<td>16.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1265.179</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value and Needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>89.959</td>
<td>3</td>
<td>29.986</td>
<td>2.868</td>
<td>.042*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>763.210</td>
<td>73</td>
<td>10.455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>853.169</td>
<td>76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at <0.05 level.

Discussion

The major purpose of this study was to determine the attitudes of teachers in rural schools toward giftedness and gifted education. Teachers in this current study reported slightly positive attitudes toward giftedness when considering educational accommodations specific to the needs of gifted students and the social value of gifted individuals but slightly negative attitudes towards acceleration. These mixed results are similar to views expressed from respondents in previous studies (Allodi & Rydelius, 2008; Lassig, 2009; McCoach & Siegle, 2007; Perković Krijan, Jurčec, & Borić, 2015; Watts, 2006). Despite research to the contrary, many teachers still ascribe to commonly-
held beliefs that acceleration has detrimental social effects for gifted students (Assouline, Colangelo, VanTassel-Baska, & Lupkowski-Shoplik, 2015; Siegle et al., 2013). Although the teachers appeared to have fairly neutral attitudes towards gifted education overall, there was a great deal of variability among teachers. While some teachers harbored markedly positive attitudes, other teachers harbored very negative attitudes. Therefore, as stated by McCoach and Siegle (2007), it would be more informative for practitioners in the field of gifted education to examine the attitudes of individual teachers on a case-by-case basis versus making broad assumptions about teachers’ attitudes toward gifted education as a whole based on group averages.

Although all of the surveyed schools within the four districts included in this study are categorized as either Rural-Fringe and/or Rural-Distant per the NCES locale codes, demographic variations between the schools and districts exist. Puryear and Kettler (2017) question the usefulness of NCES locale codes for the purposes of education research and denote the need to consider effects of proximity to city centers even within the same locale codes. Other factors besides proximity influence the socioeconomic and cultural profiles of rural communities. The districts ranged in size from a total population of 647 students in the smallest district to just under 15,000 students in the largest (see Table 2). District percentages of students from poverty or low-income households, as determined by eligibility for free or reduced lunch prices, ranged from 56.8% up to 81.7%. The amount of student diversity varied from district to district as well, ranging from a relatively nondiverse population: 94% White students and 4.1% Hispanic in one district to a district with 66.9% White and over 20% Hispanic students in another (see Table 3). Differences in responses from teachers in District 1 and District 4
to questions in the Values and Needs subscale cannot be correlated to any one discrete factor from data collected in this study.

No differences were found in attitudes towards giftedness and gifted education between teachers who lived within the rural districts in which they taught and those that did not. Some commuting teachers would be drawn from surrounding areas that are also rural, while others would be driving in from nearby small towns or even urban areas. Thus some, but not all, of the commuting teachers may also be graduates of other rural districts and/or live in a rural community – but simply not the one in which they currently teach.

Differences in attitudes towards acceleration were found between teachers who were graduates of the rural districts in which they teach and those who are not. Although both groups had slightly negative attitudes towards acceleration, the attitudes of teachers who were graduates of their districts where significantly more negative than those of teachers who were not. Mattingly and Schaefer (2015) suggest many rural communities have a deeply-embedded culture that does not value formal education as a practical necessity for a successful future. Getting an advanced education requires moving away from a rural area, causing a ‘brain drain’ that is often looked upon negatively by members of rural communities. The practice of grade acceleration, commonly referred to as grade-skipping, advances gifted students towards graduation at an earlier age, thus hastening the possibility of pursuit of a higher education away from home.

Although not a benchmark research question for this study, research by Bégin and Gagné (1994) suggested teachers’ self-perception as gifted had a positive effect on their attitudes towards gifted education. Data from this study indicated self-perception had no
significant effect, a result that is in line with other studies on teachers’ attitudes towards giftedness (McCoach & Siegle, 2007; Troxclair, 2013), one that seems somewhat counterintuitive. McCoach & Siegle (2007) bring up the interesting conjecture that perhaps more inclusive definitions of giftedness have inadvertently made the argument for specialized services for gifted studies less compelling. Possible connections between teachers’ self-perception of being gifted and their attitudes towards special programming and services for the gifted merit further research.

Limitations

This study has several limitations which affect the ability to generalize the results. Although eleven schools in four districts in nonadjacent regions of Kentucky were chosen as a representative sample of Rural-Fringe and Rural-Distant public schools districts, the demographic and socioeconomic makeup of populations in rural areas varies greatly across different geographical regions of the United States, and there may be peculiarities to the selected school districts in Kentucky that would not generalize more broadly.

Another limitation is the low number of total responses from teachers in the surveyed districts (n = 78). The attitudes of teachers who responded to the survey may systematically differ from those of teachers who did not respond. For example, it is possible that teachers who are more directly involved with gifted students or who have more training in gifted education may have been more likely to respond to this survey, since the survey dealt with attitudes towards giftedness and gifted education.

Finally, the instrumentation used in this survey only captured a limited scope of factors related to attitudes towards gifted education. Just over half of the questions (18 out of 34) from the original survey instrument were included on three subscales that
demonstrated high enough reliabilities to be used for analysis. Therefore, the measurement of attitudes toward giftedness and gifted education included in this study only encompassed a limited and distinct subsample of attitudinal factors. For example, questions related to acceleration are limited to the practice of grade-skipping or whole-grade acceleration, and they do not reference other forms of acceleration such as subject-area acceleration or early entrance to kindergarten. The use of different attitudinal measures could produce very different results.

**Conclusion**

Research to date has not indicated any one overarching factor which can be credited with shaping teachers’ attitudes towards giftedness and gifted education. Multiple challenges to providing equitable opportunities for gifted students exist in rural areas including geographical barriers, financial constraints, issues with recruiting and retaining high-quality teachers and cultural undercurrents of anti-intellectualism. As a matter of equity, it is important for future research to consider the effects of rurality on gifted education and to also take into careful consideration the broad variances in the demographic and socioeconomic profiles of different rural regions.
References


Retrieved from ERIC database. (ED430766).


Appendix: Survey Instrument

Please review the following implied consent form and choose "Yes" or "No"

- Yes, I wish to continue to the survey.
- No, I would like to quit and exit the survey.

Q1 Thank you for participating in this survey. We are requesting the district in which you teach in order to categorize data by locality code only; no identifying information about you will be shared. This survey should take approximately 10-15 minutes to complete.

Q2 School district in which you teach:

Q3 Number of years teaching:

Q4 Does your school have a gifted program?
  - Yes
  - No

Q5 Does your school have a gifted and talented coordinator?
  - Yes
  - No

Q6 Grade level(s) you teach: (check all that apply)
  - Elementary Grades (K-5)
  - Middle Grades (6-8)
  - High School (9th-12th)

Q7 Do you work with gifted learners on a regular basis?
  - Yes
  - No
Q8 Have you ever been identified for participation in gifted programming?
   ○ Yes
   ○ No

Q9 Have any of your family members of close friends ever been identified for participation in gifted programming?
   ○ Yes
   ○ No

Q10 Do you live within the community in which you teach?
   ○ Yes
   ○ No, I commute from another district

Q11 If you commute from another district, how far is your commute?
   ○ 1-10 miles
   ○ 11-25 miles
   ○ 26-50 miles
   ○ more than 50 miles

Q12 Are you a graduate of the school district in which you currently teach?
   ○ Yes
   ○ No

Directions:
The following statements concern gifted children and their education; they were taken from newspaper articles, books, and other sources. We would like to know the extent of your agreement or disagreement with each of them. **There are no correct or incorrect answers.** Please feel free to express your personal opinion.
1. Use the scale below to give your opinion.

2. Choose the statement which best represents your opinion.

3. Answer as spontaneously as possible.

4. Please answer all questions.

5. Please use "Undecided" as an answer as little as possible.

Q13 Our schools should offer special educational services for the gifted.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q14 The best way to meet the needs of the gifted is to put them in special classes.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q15 Children with difficulties have the most need of special education services.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree
Q16 Special programs for gifted children have the drawback of creating elitism.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q17 Special educational services for the gifted are a mark of privilege.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q18 When the gifted are put in special classes, the other children feel devalued.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q19 Most gifted children who skip a grade level have difficulties in their social adjustment to a group of older students.
   - Totally disagree
   - Partially disagree
   - Undecided
Q20 It is more damaging for a gifted child to waste time in class than to adapt to skipping a grade.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q21 Gifted children are often bored in school.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q22 Children who skip a grade are usually pressured to do so by their parents.
   - Totally disagree
   - Partially disagree
   - Undecided
   - Partially agree
   - Totally agree

Q23 The gifted waste their time in regular classes.
   - Totally disagree
Q24 We have a greater moral responsibility to give special help to children with difficulties than to gifted children.

Q25 Gifted persons are a valuable resource for our society.

Q26 The specific educational needs of the gifted are too often ignored in our schools.
Q27 The gifted need special attention in order to fully develop their talents.
  o Totally disagree
  o Partially disagree
  o Undecided
  o Partially agree
  o Totally agree

Q28 Our schools are already adequate in meeting the needs of the gifted.
  o Totally disagree
  o Partially disagree
  o Undecided
  o Partially agree
  o Totally agree

Q29 I would very much like to be considered a gifted person.
  o Totally disagree
  o Partially disagree
  o Undecided
  o Partially agree
  o Totally agree

Q30 It is parents who have the major responsibility for helping gifted children develop their talents.
  o Totally disagree
  o Partially disagree
  o Undecided
Q31 A child who has been identified as gifted has more difficulty in making friends.

- Partially agree
- Totally agree

Q32 Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q33 By separating students into gifted and other groups, we increase the labeling of children as strong-weak, good-less good, etc.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q34 Some teachers feel their authority threatened by gifted children.
Q35 The gifted are already favored in our schools.
- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q36 In order to progress, a society must develop the talents of gifted individuals to a maximum.
- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q37 By offering special educational services to the gifted we prepare the future members of a dominant class.
- Totally disagree
- Partially disagree
- Undecided
Q38 Taxpayers should not have to pay for special education for the minority of children who are gifted.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q39 Average children are the major resource of our society; so, they should be the focus of our attention.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q40 Gifted children might become vain or egotistical if they are given special attention.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree
Q41 When skipping a grade, gifted students miss important ideas (they have "holes" in their knowledge).

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q42 Since we invest supplementary funds for children with difficulties, we should do the same for the gifted.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q43 Often, gifted children are rejected because people are envious of them.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q44 The regular school program stifles the intellectual curiosity of gifted children.

- Totally disagree
- Partially disagree
Q45 The leaders of tomorrow's society will come mostly from the gifted of today.

- Totally disagree
- Partially disagree
- Undecided
- Partially agree
- Totally agree

Q46 A greater number of gifted children should be allowed to skip a grade.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

*Note:* From Gagné & Nadeau “Opinions About the Gifted and Their Education” (F. Gagné, personal correspondence, April 30, 2017).