The efficacy of teacher made special education referrals in Appalachian and non-Appalachian schools of Kentucky

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Keywords
special education, referrals, RTI, Kentucky, Appalachia
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THE EFFICACY OF TEACHER MADE SPECIAL EDUCATION REFERRALS IN APPALACHIAN AND NON-APPALACHIAN SCHOOLS OF KENTUCKY

Special education is a program of learning, designed individually, to meet the unique needs of exceptional children and strengthen their skills. Specifically, Kentucky defines special education as meaning specially designed instruction to meet the children with a disabilities unique needs. This includes instruction in the classrooms, hospitals, institutions, in the home, and in other settings. This is offered at no cost to the parents (Kentucky Department of Education, 2008).

Kentucky has 120 counties with 54 of those counties (45 percent) located in the geographic region known as Appalachia. Students in Appalachia Kentucky graduate with a bachelor’s degree at a lower percentage than the Kentucky state average. Per capita income is less in Appalachia Kentucky when compared to the state average. The Kentucky Appalachian region has a higher unemployment rate than the Kentucky state average (Appalachian Regional Commission, 2015a).

In Kentucky, special education involves a team leadership approach, recognized as an admissions and release committee (ARC). The ARC consists of a chairperson, parents, general education teachers, special education teachers, advocates and other service providers. Before making a teacher-made referral, the ARC triangulates data such as attendance records, discipline reports, universal screener scores, report card grades, and Response to Intervention (RTI) progress monitoring data. This group of individuals has the responsibility of developing, reviewing, or revising the individualized education plan (IEP) of a child with a disability (Kentucky Department of Education, 2008).
In regards to children within Kentucky, during the 2015-16 school year, there were 83,787 exceptional children ages six through 21. Additionally, there were 17,519 exceptional children ages three through five. Kentucky’s total population of public school students was 655,475. Of these students, the top three ethnic groups show that 79 percent are of white ethnicity, 10.5 percent African American ethnicity, and 6 percent are Hispanic ethnic. In addition, 70.57 percent of individual students are eligible for free or reduced-price meals in public schools. Finally, 12.78 percent of kindergarten through twelfth grade students within Kentucky public schools receive special education services (Kentucky Department of Education, 2017). Another important factor involving exceptional children involves efficacy of teacher made referrals and the probability of placement in special education.

The purpose of this study was to determine if a difference in special education referrals leading to student qualification occurs between teacher made special education referrals in Appalachian and non-Appalachian schools in Kentucky. To date, a minimal amount of research exists concerning special education referrals in the state of Kentucky. Overall, the majority of research concerning special education referrals centers around English as a second language learners (ESL), African American ethnic groups as well as other minorities, and more developed areas in the United States and internationally (Hallahan, Kauffman, & Pullen, 2014). Due to the lack of studies concerning special education referrals, further research is needed within the commonwealth of Kentucky, particularly Appalachia. Educators do their utmost to meet student needs. However, knowledge of trends in student population, research-based interventions, and legal regulations to best impact students before referring a child for special education are important for educators. Likewise, parents need to be aware of these same trends.

Efficacy is the ability to produce a desired or intended result. When a student displays complications related to learning, an referral may be completed to assess the individual’s abilities cognitively, academically, and social-emotional functioning. The desired result of a
referral is to produce qualification for special education services under a suspected disability category. This is done to determine how to best meet the student’s educational goals. When a referral is completed and the student does not qualify, an undesired result occurs.

**Special Education in Kentucky**

The Appalachian Regional Commission was founded in 1965 by Congress as a regional economic development agency for the 13 Appalachian states. The commission’s four goals as a
part of their strategic plan involves increasing job opportunities and per capita income, competing in the global economy, develop and improve infrastructure, and reduce isolation by building the Appalachian Development Highway System. Likewise, this organization compiles data and conducts research on key demographics and quality of life factors which affect the current and future Appalachian region. Also, their research provides information on Appalachian trends and needs. One of the trends reviewed was specific to graduation rates.

National data collection specific to graduation includes a great deal of variability, often due to how the data was collected, such as the inclusion or exclusion of GEDs and equivalency completers, inclusion of private schools, and/or those who completed degrees in more than the four year typical high school time line. Additionally, long range data was not always available, such as the National Center for Education Statistics report that indicates data for Kentucky “was unavailable” (NCES, 2014). Subsequently, for purposes of this study, data from the Appalachian Regional Commission (2015b) were used. According to the Appalachian Regional Commission (2015b) data reported between the years 2009 through 2013, the national percentage of students who successfully complete high school was 98.3 percent. In the state of Kentucky, that percent was 96.5 percent, except in the Appalachian region of Kentucky where the rate was only 87 percent. This statistic is calculated by dividing the percentage who have completed a high school diploma or more in a county, state, or region by the national average. Furthermore, 21.5 percent of Kentuckians completed a bachelor’s degree or more between 2009 through 2013. In comparison, that percentage decreases to 13.3 percent for those who reside in the Appalachian region of Kentucky.

Also, in 2013 the per capita income for an individual in Kentucky was on average $36,214. That average drops by over $7,000 when compared to Appalachian Kentucky where
the average was $29,103. Finally, the 2013 United States unemployment rate was 7.4 percent. Kentucky's unemployment rate was higher at 8.3 percent. The Appalachian region of Kentucky was even higher at 10.3 percent (Appalachian Regional Commission, 2015b).

During the 1960s, there was no special education personnel preparation in Kentucky. The University of Kentucky hired their first special education faculty member in 1968. Since then, there has been progress in preparing future educators for working in rural special education. By the 1980s, the University of Kentucky expanded to having a Department of Special Education. Special education efforts have to continue to progress to meet the needs and challenges of those in rural America (Collins & Schuster, 2001).

One study by DeYoung, (1983) compared county school districts in Appalachia Kentucky to those in non-Appalachia. The school districts in Appalachia Kentucky had: a higher amount of students who were economically disadvantaged, a higher amount of students scoring below average on basic reading and math skills tests, fewer dollars were spent per student on instruction, fewer percentage of high school graduates, fewer local tax dollars to spend on education, and a higher amount of dependence on federal and state funding than school districts in non-Appalachia. This evidence displays the negative effects poverty had on education.

In 1990, as a part of the Kentucky Education Reform ACT (KERA), a funding formula was developed titled Support Education Excellence in Kentucky (SEEK). This funding formula is still currently used by Kentucky public school districts for special education students. Guaranteed funding is provided per student for capital expenditures and regular operating costs, including transportation costs. The formula assigns different financial weights to disability categories and a report of exceptional children is completed annually on December first each year (Kentucky Department of Education, 2015b).
Research Questions

This research question guided the study:

1. Is there a statistical difference between referrals submitted by teachers in Appalachian and non-Appalachian schools leading to qualification of student’s for special education in the state of Kentucky?

Methods

Sample

This study was conducted to determine the efficacy of special education referrals made by teachers in Kentucky schools located in Appalachia and not located in Appalachia. Data were collected for the 2014-2015 academic school year. This study was conducted in 35 Kentucky schools geographically located in the area known as Appalachia and 74 schools in Kentucky not geographically located in the area known as Appalachia. A total of 812 teachers who made special education referrals were included in this study. Based on the referrals reviewed during this study concerning teacher referrals, of 627 students referred, 77 percent qualified for special education services.

Data Collection Procedures

Every school district superintendent in the state of Kentucky was contacted via e-mail with a letter requesting participation in the research study. Data were obtained through Superintendents, Directors of Special Education, and school district psychologists who completed multi-disciplinary school evaluations. School psychologists completed the evaluation report using triangulation of data to determine if the referred student would be best served by special education or not. Data were calculated in relation to the 2014-15 academic year. At no
time were names of schools or students used anywhere in the study. Data collected in the study were evaluated using a causal-comparative design.

An important note is that qualification accuracy and special education referral rates do not include all students who were referred. An ARC in Kentucky can determine that data does not indicate a suspected disability for the referral, or that the referral does include sufficient information to determine a suspected disability. As a result, a full individual evaluation would not be initiated.

**Data Analysis**

Concerning the difference between teacher-made referrals in Appalachian and non-Appalachian schools, an independent samples \( t \)-test was conducted. Since there is no direct connection between the schools, the independent samples \( t \)-test was used instead of the paired samples \( t \)-test. This statistical test is generated for normal distributions. This test compares numeric data from two groups to see which is greater (Spatz, 2001).

**Research Findings and Discussion** Even though several research studies have been conducted concerning the disproportion of special education students and reasons for referral, limited specific research has been conducted in regard to special education referrals made by teachers in Appalachian and non-Appalachian schools in the state of Kentucky. Additional research is needed to support school leadership in their policy-decision making as it relates to special education referrals.

Furthermore, a comparison of 2014-15 school year special education referrals shows that 354 teacher-made referrals were made in Appalachian schools in Kentucky with 291 (82 percent) qualifying for special education. Conversely, 458 teacher-made referrals were made in non-
Appalachian schools in Kentucky with 336 (73 percent) qualifying for special education. The independent samples $t$-test indicated a significant difference between teacher-made referrals in Appalachian schools ($M = 8.3$) and teacher-made referrals in non-Appalachian schools ($M = 4.5$), ($t_{[107]} = 2.78, p < .05$). The statistic is significant at the 95 percent confidence level. Teacher referrals are more likely to lead to special education qualification when made by Appalachian teachers as compared to non-Appalachian teachers. See results in Table 1.

Table 1: Independent samples $t$-test: Appalachian and Non-Appalachian teacher-made referrals.

<table>
<thead>
<tr>
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<th>Appalachian - Teacher-Made Qualified</th>
<th>Non-Appalachian - Teacher-Made Qualified</th>
</tr>
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<td>107</td>
<td></td>
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<tr>
<td>$P(T&lt;=t)$ two-tail</td>
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<tr>
<td>$t$ Critical two-tail</td>
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</tr>
</tbody>
</table>

**Practical Assessment of Research Question.** Presently at the state level, the Kentucky Department of Education has placed an emphasis on novice reduction, in other words, reducing the number of students scoring at the novice level to improve overall student achievement, thus
closing the achievement gap (Kentucky Department of Education, 2015a). This gap is determined
by the annual state accountability test known as Kentucky Performance Rating for Educational Progress (K-PREP). This has a negative effect on children with special needs. The state’s push for novice reduction on a single achievement test is in contrast to the design of an IEP. Where the K-PREP exam scores children based upon one single assessment and pushes for proficiency, an IEP focuses on growth to address a specific weaknesses or deficit area. Appalachian school administrators and teachers, specifically those in poverty, may have a better understanding of the achievement gap due to poverty. Additionally, special education students require different cognitive strategies than their similar aged non-disabled peers. A referral is justified when explicit direct instruction has occurred from highly qualified teachers, though student learning remains significantly below the level of similar age peers. There is a difference between teaching, what occurs outside the head, and learning, what occurs inside the head (Payne, 2005).

Even though quality teaching attempts to activate learning, some students continue to struggle to make adequate progress. Those students who fail to emerge from their deficits may be referred for a special education evaluation. The research question sought to determine the efficacy of special education referrals made by teachers in Appalachian and non-Appalachian schools. As reported by the independent samples t-test, there is a significant difference between teacher-made referrals in Appalachian schools ($M = 8.3$) and teacher-made referrals in non-Appalachian schools ($M = 4.5$), ($t[107] = 2.78, p < .05$). Teacher referrals are more likely to lead to special education qualification when made by teachers at Appalachian schools as compared to teachers from non-Appalachian schools. Consultation between special and general education teachers is essential to determining which students garner a referral. This knowledge management system allows educators to work in collaboration by sharing ideas that will enhance student performance in the classroom.
In an RTI team, special and general educators learn from each other by sharing responsibility for instructing students with and without disabilities. Responsibility is shared by exchanging ideas, lessons, and strategies to better reach student academic and behavioral goals. An RTI team is an on-going team environment, typically known as common planning, but does not always meet face-to-face. Rather, data and notes can be shared virtually in an accessible team folder on Google Drive, Dropbox, or another synchronized file sharing software. Administrative support is necessary for changes to be made. By utilizing a team approach, such as a RTI team, opportunities to implement future teaching ideas are reinforced to administrators due to the team approach (Hunter, Jasper, & Williamson, 2014).

Therefore, school administrators may possibly better meet this need for collaboration between general and special education teachers by ensuring common time for educators to participate in professional learning opportunities. By administration being strategic with time, educators could work collaboratively, studying student data and charting progress during tiers of intervention. As a result, when a referral occurs the ARC could possibly better determine the correct classification of disability suspect for evaluation.

Data shows a discrepancy between teacher-made referrals in the state of Kentucky. This can be partially attributed to the wording found in the Kentucky Administrative Regulations (KAR). Concerning the KAR for special education, a change in verbiage can better increase special education referral efficacy. Section Two states that intervention services are to be conducted for students’ kindergarten through twelfth grade. An emphasis is placed on intervention services for students’ kindergarten through third grade. These intervention services help students who need additional academic and behavior support in order for them to have success in the general education classroom. This is to be done “prior to a referral” for special
education (Kentucky Department of Education, 2008, p. 14). However, in section three, part three, letter a of the referral system, a way for teachers to circumvent the “prior to a referral” exists. The terminology that relevant research-based instruction and interventions should be conducted “as a part of the referral process” should be eliminated (Kentucky Department of Education, 2008, p. 14-15).

**Implications of the Findings and Recommendations**

This study examined the efficacy of special education referrals made by teachers in Appalachian and non-Appalachian schools of Kentucky. As reported, teacher made-referrals are more likely to lead to qualification when made by teachers in Appalachian schools in comparison to those in non-Appalachian schools. The significance of these results impact the professional development of teachers and best practices.

Concerning the improvement of teacher-made referrals in both Appalachian and non-Appalachian schools, regional special education co-operatives should be utilized. The co-operatives partner with the Kentucky Department of Education help educators meet their professional demands to the best of their abilities. These co-operatives offer specific trainings such as IEP development, teaching enduring skills, and math intervention. A training offered about proper special education referrals increases the competence of the general education teacher in relation to special education services. Well-trained educators in their field of services can deliver best practices in the classroom. Likewise, solving problems such as when to refer a student for a special education evaluation can become a best practice.

Technical changes to Kentucky Department of Education’s Web-based software, Infinite Campus are needed to better track parent and teacher referrals data. Infinite Campus does not always allow record reviewers, such as school psychologists, to know exactly who completed the
referral. Some referrals on Infinite Campus may have teacher and parent listed together, but who gets the credit for the referral is left up to decision of the person reviewing the records. In addition, there is not an option to indicate that the referral was a collaborative effort between special and general education teachers. A parent, teacher, and collaboration check box, as well as, suspected special education disability check box for data tracking can result in automatic report generating for this needed data. This will help monitor trends in special education referrals and the accuracy of referrals based upon student qualification rates. Likewise, the referral would provide information about most appropriate strategies for RTI implementation in each referral category and disability.

An RTI teams yields a high level of value for schools. Educators collaboratively work together as members of an RTI team. Teachers seek out one another’s feedback to improve the education they provide. Including special and general education teachers and intervention teachers in grade level RTI teams may better improve the efficacy of special education referrals. Referrals could be more in depth as the RTI team would be data-driven. As a result, teachers can be individually student-focused. Teachers could discuss a variety of researched-based instructional delivery-methods for these struggling students.

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Another recommendation concerns the elimination of certain language found in the KAR. The terminology that relevant research-based instruction and interventions should be conducted “as a part of the referral process” should be eliminated (Kentucky Department of Education, 2008, p. 14-15). By ensuring that research-based interventions are implemented prior to a special education referral, less time is spent by an ARC referring students for special education
with insufficient data. As a result, more time can be spent referring students with sufficient data and a higher accuracy of qualification rates of special education referrals. This would also lower
the amount parent referrals made. However, for students with life-threatening or extreme disabilities exemptions can be made. For these students, such as a traumatic brain injury, functional mental disability where the child’s IQ is within the intellectual disability range, or orthopedic impairment such as cerebral palsy where physical movement is limited, an exemption allows them to receive necessary services due to the impact on daily living skills.

A referral for special education is a process that will take time. The multi-tiered RTI system is a general education initiative. Research-based interventions are to prevent over-identification of students with disabilities in special education (Kentucky Department of Education, 2008, p 14-15). Response-to-intervention is a problem-solving component leading to a possible referral but it is not an independent process. However, response-to-intervention provides a strong basis for a special education referral. The RTI data obtained is used to identify the problem. Students may cycle through RTI more than once.

Teachers who better utilize resources may produce more efficient referrals. Common planning for RTI teams allow general education teachers, interventionists, and special education teachers the opportunity to collectively analyze data and come to an agreement for a teacher-made referral. Furthermore, special education co-operatives provide in-depth trainings for educators. Utilizing these co-operatives for special education referral professional development may produce more efficient referrals, which lead to qualification when appropriate.

Limitations of the Study

During this study, there were limitations that surfaced. Certain referrals were intentionally excluded from this researched study. Speech-language disability only referrals were excluded. Commonly, a school’s speech-language pathologist will screen and evaluate
students for this disability. Furthermore, preschool referrals were excluded, as preschools are optional to attend and only affect those students whose parents choose for them to attend.

Technical issues with the Kentucky Department of Education’s student record management system, Infinite Campus limited this study. This Web-based software system contains student household information, grades, attendance records, and special education documents. A special education teacher creates IEPs, conference summaries, and eligibility determination forms in this system. Several school districts contacted for this study declined to participate after first attempting to collect data due to the lack of tracking availability between parent and teacher referrals within Infinite Campus. Lastly, the data collector checked each student’s records to verify accuracy and eliminate any that were speech-language referrals only. These manual steps are time consuming and not easily obtainable. Therefore, other schools may have participated if the Infinite Campus software had a suspected special education disability check box for tracking data. School administration necessitating easier access for tracking data in Infinite Campus at the state level will help monitor special education referral qualification rates across the educational field in Kentucky.

Population differences in Appalachia and non-Appalachia are a limiting circumstance too. A metropolitan area in the United States is considered to have a core urban area with a large population of at least 50,000 individuals and has a high degree of social and economic integration. Micropolitan areas are similar, though they have a population above 10,000 but less than 50,000 (United States Census Bureau, 2016). Kentucky has only nine metropolitan areas and 16 micropolitan areas (United States Census Bureau, 2013). The majority of the areas listed as neither metropolitan or micropolitan are in Appalachia. These areas have economic
constraints, such as lack of basic infrastructure, roadways, and waste management (Appalachian Regional Commission, 2016), indirectly affecting education.

**Summary**

This research study examined the efficacy of teacher made special education referrals in Appalachian and non-Appalachian schools of Kentucky. The study revealed significant differences between referral qualification rates. Teacher made referrals leading to qualification for special education were significantly more likely to occur in Appalachian schools.

Responsiveness to the research findings in this study from schools in Kentucky is needed. By taking a proactive approach to the efficacy of special education referrals, teachers can use their time more effectively. Schools need to be sure they are accurately suspecting a child to have a disability. Improving the qualification efficacy of special education referrals also supports a school’s educational excellence.

Even though, this study was conducted only within Kentucky schools, results can be generalized to other geographic areas. Specifically, other states located in or a part of Appalachia could benefit from the information gathered in this study. States located in Appalachia share similar demographics and characteristics. As a result, these states encompass similar concerns which need to be addressed. Changes should be cultivated for increased efficacy of teacher referrals in relation to special education evaluations. The findings positively impact best practices across those 13 states in Appalachia.
References


Publications.


