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ABSTRACT

The purpose of this non-experimental study was to determine if parental involvement levels have an effect on the gifted and talented (GT) status of fourth grade students. An additional purpose of the study was to determine if there was a difference between the academic performance of GT and non-GT students. The participants were a convenience sample of 50 parents or guardians of fourth grade students at a public middle school in the southeastern United States. The participants completed a researcher-made survey to determine the level of parental involvement in the fourth-grade student's academics. An analysis of the results indicated that parental involvement does not significantly affect student status as GT or non-GT. The results of the study further indicated there is a significant difference between the academic achievement of non-GT students and the academic achievement of GT students, with GT students having a higher achievement level.

INTRODUCTION

Society and the role of the family have changed drastically in the past century. "In 1900, only 6% of married women worked outside the home" (Caplow, Hicks, & Wattenberg, 2011, p. 18). In 1950, 33.9% of women worked outside the home compared with 43.3% in 1970 and 57% in 2014 (Status of Women in the States, 2020). Because more mothers work outside the home than was the case a century ago, these moms have less time available for their children's education. Children are also losing valuable time for connection with their parents and early learning from their parents due to technology, whether the parents are using the technology or giving it to the child as a distraction or reward (Quinlan, 2018). In contrast to this newer family dynamic, Bloom and Sosniak (1981) believe parents play an important role in the academic development of children. If this is indeed accurate, how and to what degree parental involvement impacts academics is valuable information to know.

PARENTS' ACADEMIC SOCIALIZATION

Academic Socialization refers to parents' communication with their children about education. These conversations include topics such as what the children want to be when they grow up and how and why education is important for those dreams to become reality. Student academic achievement is higher when parents have conversations with their children about the importance of education and how it relates to the child's future dreams and goals (Hill & Tyson, 2009). Academic Socialization also includes what the parents' achievement expectations are and how the children can meet those

expectations (Hill & Tyson, 2009). Likewise, discussions about appropriate behavior while in class help students have higher academic achievement (Chaudhry, Khaliq, Agha, & Hassan, 2015). Through dialog with their children, parents gain influence over the academic performance and behavior choices of their child (Yang & Zhou, 2008). However, this influence tends to decrease as students move from the middle school age group into the upper grades where their peers become more influential (Cho & Campbell, 2011). Along with conversations of academic importance, parents are able to invest in their children's education through home-based involvement.

HOME-BASED INVOLVEMENT

Home-based Involvement refers to the role parents play in creating a home environment that supports education (Hill & Tyson, 2009). Yang and Zhou (2008) reported student achievement is greatly influenced by the home environment. Having a space to work and all the materials needed for working at home is beneficial for student achievement (Hill & Tyson, 2009). Undoubtedly, completing a task well is almost impossible if the tools for success are not available. In most cases, higher achieving students preferred to work on homework alone in a well-lit area where parents had provided a plethora of education materials to aid in academic endeavors (Downey, 1995; Hong, 2001). Having a well-lit space to work with minimal distractions helps children concentrate on the task at hand. In addition to materials and workspace, parents of high-achieving students stayed involved in their student's education by providing homework assistance (Cho & Campbell, 2011; Echaune, Ndiku, & Sang, 2015). Because the lighting and provision of a workspace, having needed materials on hand, and study help can be easily improved, parents can quickly help better their children's achievement (Keith & Benson, 1992). Although parents can be involved in their children's education in the home, they can also be involved by volunteering at the school.

PARENTAL SCHOOL-BASED INVOLVEMENT

School-based Involvement (Hill & Tyson, 2009) is the role the parent takes in working at the school and with school officials on behalf of the child. School-based parental involvement can be less student-centered depending on the needs of the school and teacher, which often include making copies, running parties, managing PTO events, or helping students in need (Hill & Tyson, 2009). Furthermore, parents can also be involved at the school by attending parent teacher conferences. When parents attend meetings with the teacher or school administration regarding the child's behavior or academic achievement, student performance is improved (Chaudhry et al., 2015). However, parents tend to avoid schools where they feel unwelcome, not valued, and where communication is not present (Allen, 2011; Holt, 2011). This avoidance and lack of communication might create gaps for parents in knowing how to support their children's academic achievements. According to Avnet, Makara, Larwin, & Erickson (2019) parents of students who scored better on assessments were not as involved in the classroom, but it is unclear as to why this phenomenon occurred. Ultimately, academic achievement appears to correlate with parental involvement at the school. Apart from

this, parental involvement may be impacted by the socioeconomic status of parents.

PARENTAL SOCIOECONOMIC STATUS

Parents' socioeconomic status (SES) can influence parental involvement, which in turn can influence academic achievement. Parents with a higher SES are better able to create a home environment leading to better opportunities for learning (Crane, 1996). In contrast, the difficulty of providing a study area and the materials students may need for their school work at home is intensified when parents do not have the financial ability or knowledge of how to do so (Clemons, 2008). Anderson (2000) and Krasner (1992) reported that children in low socio-economic environments struggle academically and are more likely to not graduate. However, Cho and Campbell (2011) suggest that low SES parents can hold high values and want more for their children than they have had themselves. When parents communicate high expectations and academic importance to their children, they can offset the effects of a low SES (Balli, 1996). Therefore, parental involvement (i.e. reading to children, reviewing homework, using math and science) is a bigger predictor of academic success of children than the socioeconomic status of the family (Walburg, 1984). Parental involvement may also influence the placement of students in Gifted and Talented programs.

GIFTED AND TALENTED STUDENTS

The National Association for Gifted Children (NAGC) defines gifted children as those who have ability significantly above the norm (National Association for Gifted Children, 1954). The NAGC (1954) further describes the meaning of giftedness as potentially "manifesting in one or more domains such as; intellectual, creative, artistic, leadership or in a specific academic field such as language arts, mathematics, or science." The self-perception of their own abilities influences achievement in gifted students (Diaz, 1998). When students feel like they are good at something, their achievement is typically higher. Hong (2008) revealed that high-achieving students are not more self-motivated with their academics than lower achieving students. However, gifted students who are motivated to do well are more likely to do so (Baker, Bridger, & Evans, 1998). The students' motivation propels them forward. Marchant, Paulson, & Rothlisberg (2001) reported that in addition to their motivation, gifted students tend to have a better attitude toward school and a better self-perception when their parents are involved and supportive of their education. Most ideas presented suggest parental involvement impacts student achievement. However, not all parental involvement avenues are the same and therefore could potentially affect achievement differently. Because the success of students in school and in life is important, an understanding of what parental involvement aspects play a part, which do not, and to what degree, if any, they play in academic achievement is key.

PURPOSE OF STUDY

The purpose of this study was to determine if parental involvement levels have an effect on the gifted and talented status of fourth grade students. For this study, the term levels,

when referring to parental involvement, was defined as the position of an amount on a scale. If an association between parental involvement and gifted and talented status exists, parents will know that their participation in their child's education is crucial and can make adjustments accordingly.

A sub purpose was to determine if there were differences between academic performance of fourth grade students who were identified as GT and fourth grade students who were not.

HYPOTHESES

H₁ – It is hypothesized that parental involvement levels has an effect on the gifted and talented status of fourth grade students.

H₂ – It is hypothesized that there is a difference between the academic performance of fourth graders who were identified as GT and those who were not.

METHOD

PARTICIPANTS

The participants in this study were a convenience sample of 50 parents or guardians of fourth grade students at a public middle school in the southeastern United States. The relevant participant demographic characteristics are presented in Table 1.

Table 1: Demographic Characteristics of Participants

	GT	Non GT	Total
Parent's Characteristics	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Number of Children			
1	35 (71)	14 (29)	69 (100)
2	1 (25)	3(75)	4 (100)
3	20 (69)	9 (31)	29 (100)
4	8 (80)	2 (20)	10 (100)
4+	3 (100)	0 (0)	3 (100)
Hours Worked Outside the Home			
0	3 (100)	0 (0)	3 (100)
1-10	7 (70)	3 (30)	10 (100)
11-20	4 (100)	0 (0)	4 (100)
21-30	0 (0)	1 (100)	1 (100)
31-40	4 (80)	1 (20)	5 (100)
41+	10 (67)	4 (29)	14 (100)
	10 (71)	5(33)	15 (100)

INSTRUMENTATION

The primary instrument used for this study was a researcher created Google Form Parental Involvement survey consisting of four sections. The four sections include the purpose of the study and informed consent, demographics, parental involvement items, and parental involvement time. The purpose of the study and informed consent is written as an informational paragraph and did not require a response from the participant. The participant is informed that their completion of the survey is the equivalent of their consent to participate. The demographics section is a series of five multiple-choice questions that reference the student homeroom, information about the relationship between the person completing the form and the fourth grader, gender, number of children are in the home, and number of hours the person completing the survey works outside the home. The demographic portion is not scored. The third part of the survey is comprised of two

different sections. The first section is composed of 17 Likert scaled items that attend to three kinds of parental involvement, which are academic socialization, home-based involvement, and school-based involvement. Participants responded by using one of seven options. Six of the choices range from “strongly agree” to “strongly disagree.” The seventh option on the scale is “not applicable.” Each item is assigned a score from one to six, with one corresponding to “strongly disagree” and six corresponding to “strongly agree.” “Not applicable” receives a score of zero. To reduce response bias, the items include positive and negative statements and will be scored using the reverse scoring method. The scores from each item are combined for a total score for the first part of section three. The possible scores range from 17 to 102. The second section of part three of the survey comprises of five Likert-scaled items. The statements address the average amount of time the parent spends participating in academic activities with their child. The response options range from “1-15 minutes” daily to “46+ minutes” daily. Each option is assigned a score from one to four, with one being the least number of minutes and four being the highest number of minutes daily. For the second section of part three, the possible scores range from five to 20. Finally, the earned scores from both parts of section three of the survey are added together to get a total parental involvement score. Due to this instrument being made by the researcher, the reliability and validity are unknown. A copy of the Parental Involvement survey is included in the Appendix.

To address the secondary purpose of the study, students’ core subject grades for the first three nine-week periods of fourth grade were used. The core subjects include literacy, math, science, and social studies. The average was calculated for each subject area for the three nine-week periods. The calculated averages were then added together and divided by four to obtain a cumulative academic achievement score for each student.

PROCEDURE

Upon approval from the Institutional Review Board (IRB) to begin collecting data for this nonexperimental study, the researcher shared a survey link with parents and guardians through School Status, the school district’s preferred tool for parent communication. As parents completed and submitted the survey, the results were automatically collected in a spreadsheet. The spreadsheet electronically assigned each responder a number in the order the responses were documented. The researcher scored the surveys as they were completed. Once all the surveys were scored, the parental involvement data was analyzed using an independent samples *t*-test to determine if parental involvement levels have an effect on the GT status of fourth grade students. The hypothesis was examined using an alpha level of 0.05.

RESULTS

An independent samples *t*-test was calculated comparing the mean parental involvement scores of participants whose fourth grader is identified as non-gifted and talented to the mean scores of participants whose fourth grade is identified as gifted and talented. No significant difference was found $t(50) = .89, p >$

DISCUSSION

FINDINGS

This study revealed that parental involvement levels do not have an effect on the gifted and talented status of students. The self-reported parental involvement levels for both the GT and non-GT groups were quite close, albeit the GT group parental involvement mean was slightly higher. As reported in the literature, Marchant, Paulson, & Rothlisberg (2001) claim that in addition to their motivation, gifted students tend to have a better attitude toward school and a better self-perception when their parents are involved and supportive of their education. Whereas their claim may be true, due to the lack of distinction in effect of parental involvement levels on GT versus non-GT students, the findings of this study indicate the statement would apply to non-gifted students as well. However, 72% of the survey participants were parents of GT students. Whereas, only 28% of participants were parents of non-GT students. The lack of difference could be attributed to the participant demographics.

Alternatively, additional results of this study indicate there is a difference between the academic performance of GT and non-GT students. The difference between the mean scores of each group was greater than 10 points. Hong (2008) revealed that high achieving students are not more self-motivated with their academics than lower achieving students. However, gifted students who are motivated to do well are more likely to do so (Baker, Bridger, & Evans, 1998). Whether or not the described motivation is related to parental involvement requires additional research.

IMPLICATIONS

The most important implication from the results of this survey is that there is a discrepancy between the academic achievement of non-GT and GT students. While further research is needed to determine why the discrepancy exists and how best to close the gap between these two groups of students, it is imperative to intervene in every way possible, to include continued and more prevalent parental involvement.

LIMITATIONS

Several limitations were present in this study. The first limitation is the bias of the sample based on volunteerism. As was the case with this study, the researcher identified an original sample. However, not all of those parents chose to participate. The ones who did participate are volunteers and may not represent the population. The majority of volunteers in this study were parents of GT students, which is not generalizable to the population. The overall lack of participation of non-GT parents could be representative of the level of parental involvement with their children. An additional limitation in the study is the self-reporting survey. Because parents were reporting information about their parental involvement levels with their children, there may be some dishonesty or exaggeration within their answer selections. Participants may have been concerned about the social desirability of their responses even though the survey results were anonymous. Finally, the study is lacking in a connection

.05. The mean parental involvement score of parents of non-GT fourth graders ($m = 90.25$, $sd = 19.1$) was not significantly different from the mean parental involvement score of parents of GT fourth graders ($m = 93.68$, $sd = 8.47$). The null hypothesis was not rejected and the alternative hypothesis was not supported. The analysis of the difference between parental involvement levels and the GT or non-GT status of students is not statistically significant (see Figure 1).

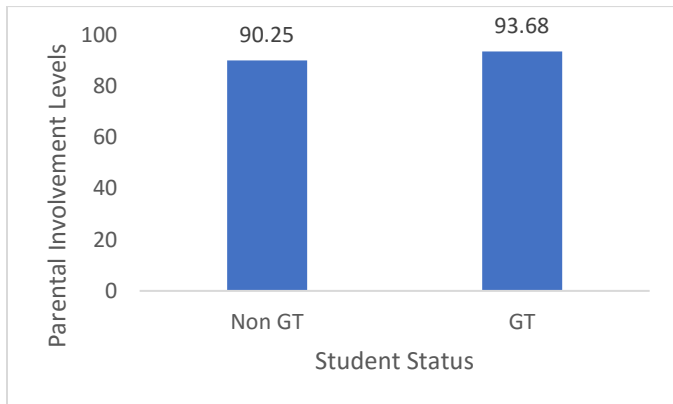


Figure 1: Mean of parental involvement levels of non-GT and GT fourth graders

An independent samples t-test was calculated comparing the mean academic performance scores of fourth graders who were identified as non-gifted and talented to the mean academic performance scores of fourth graders who were identified as gifted and talented. A significant difference was found $t(105) = 9.36$, $p < .05$. The mean academic performance of non-GT fourth graders ($m = 81.56$, $sd = 7.11$) was significantly different from the mean academic performance of GT fourth graders ($m = 91.69$, $sd = 3.34$). The null hypothesis was rejected and the alternative hypothesis was supported. The analysis of the difference between the academic performance of GT and non-GT students is statistically significant (see Figure 2)

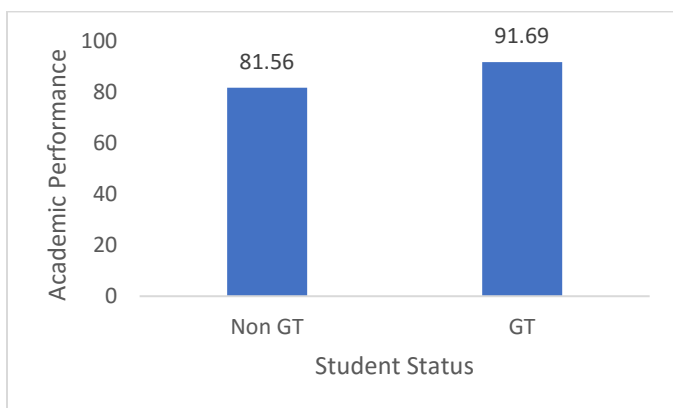


Figure 2. Mean of academic performance scores of non-GT and GT fourth graders.

between the levels of parental involvement and the academic achievement levels of the children. The survey design failed to gather the information needed to investigate that relationship.

FUTURE RESEARCH

Although there is substantial research on parental involvement, studies on the relationship between parental involvement levels and the student achievement of GT versus non-GT students are limited. Therefore, future studies should incorporate data collection that would show whether a correlation exists between non-GT students, GT students and parental involvement levels. Additionally, because the aim of any study is to be able to generalize to the population, the sample used is of great significance. Due to the sample limitations in this study, future research should strive to identify sample groups that are more representative of the population. Finally, future studies should look into the effects of each specific type of parental involvement (academic socialization, home-based, and school-based) on GT versus non-GT status and academic achievement levels. While time is limited for many parents working outside the home, they may benefit from understanding the most effective ways to utilize their time in attempts to support their children's academic success.

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ABOUT THE AUTHOR

Tia Cook is a fourth grade math and science teacher in Searcy, Arkansas. She has 15 years teaching experience. While continuing her career, Tia is also a graduate student pursuing a Masters of Education in Reading with Dyslexia/Reading Endorsement. It is her hope to use her master's degree to better help her struggling students improve in reading and comprehension, thus having a positive impact on their knowledge and understanding of her content area.

Appendix

Parental Involvement Survey

Section 1 – Parental Involvement Study

The purpose of this study is to gain a better understanding of parental involvement at the elementary school level. In order to participate, you need to complete this survey. The potential benefits of this study are a better understanding of the correlation between parental involvement and the academic achievement of students. There are no known risks of participation in this study. You have the right to withdraw from participation without any penalty. Completion of the survey will be considered your informed consent. If you have questions, please feel free to contact Tia Cook at ticook@searcyschools.org.

Section 2 – Multiple Choice. Please choose the most accurate answer for each question.

1. Whose homeroom is your fourth-grade student in?
 a. Cook b. Freeman c. Landers d. Willibey
2. What is your relationship with the fourth-grade student?
 a. Parent b. Grandparent c. Step Parent d. Other
3. What is your gender?
 a. Male b. Female c. Would prefer not to say
4. What is the total number of children in the home (including the fourth grader)?
 a. 1 b. 2 c. 3 d. 4 e. more than 4
5. How many hours a week do you work outside the home?
 a. 0 b. 1-10 c. 11-20 d. 21-30 e. 31-40 d. more than 40

Section 3 – Please read the answer options carefully.

Based on your fourth-grade student, please choose the most accurate response for each statement. If you have more than one fourth-grade student, please choose only one to base your answers on.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree	Not Applicable
1. I make sure my child is in attendance at school daily.	6	5	4	3	2	1	0