The Journal
OF AT-RISK ISSUES

The Journal of At-Risk Issues

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Manuscripts should be original works not previously published nor concurrently submitted for publication to other journals. Manuscripts should be written clearly and concisely for a diverse audience, especially educational professionals in K-12 and higher education. Topics appropriate for *The Journal of At-Risk Issues* include, but are not limited to, research and practice, dropout prevention strategies, school restructuring, social and cultural reform, family issues, tracking, youth in at-risk situations, literacy, school violence, alternative education, cooperative learning, learning styles, community involvement in education, and dropout recovery.

Research reports describe original studies that have applied applications. Group designs, single-subject designs, qualitative methods, mixed methods design, and other appropriate strategies are welcome. Review articles provide qualitative and/or quantitative syntheses of published and unpublished research and other information that yields important perspectives about at-risk populations. Such articles should stress applied implications.

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Submit electronically in Microsoft-Word, including an abstract, and send to the editor at edu_rar@shsu.edu for editorial review. Manuscripts should also include a cover page with the following information: the full manuscript title; the author's full name, title, depart-ment, institution or professional affiliation, return mailing address, email address, and telephone number; and the full names of coauthors with their titles, departments, institution or professional affiliations, mailing addresses, and email addresses. Do not include any identifying information in the text pages. All appropriate manuscripts will be submitted to a blind review by three reviewers. Manuscripts may be submitted at any time for review. If accepted, authors will be notified of publication. There is no publication fee.

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Authors are encouraged to submit appropriate book reviews for publication consideration. Please include the following: an objective review of no more than five, double-spaced pages; full name of the book and author(s); and publisher including city, state, date of publication, ISBN number, and cost.

Submit Manuscripts to:

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A Portrait of Administrator, Teacher, and Parent Perceptions of Title I School Improvement Plans

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Abstract: *As a nation we need to identify a set of practical tools to help schools meet the needs of diverse learners. Schools must improve learning for all students, including children living in poverty, students learning English for the first time, students with special needs, students that are mobile, and students with diverse backgrounds. It is critical to their success that decision making be based on real-time accurate data and include classroom interventions based on research. An increase in staff knowledge is required to promote a unified focus on strategies, targets, and data monitoring that is tied directly to the school mission, beliefs, and objectives for improvement.*

Introduction

A Schoolwide Title I designation allows schools to utilize funds from Title I, Part A, and other federal education resources to upgrade the school's entire educational program and enhance academic achievement (Elementary and Secondary Education Act [ESEA], 1965). To qualify as a Schoolwide Title I school, at least 40% of the student population must live in poverty. Title I concentrates on a results-based accountability approach. This allowed

> flexible use of Title I funds as opposed to targeting only qualifying students for academic assistance, reduced the fragmentation of programs and allowed schools to integrate services based on both the needs of the Title I students and other students within the building. (Stavem, 2008, p. 4-5)

Schoolwide Title I schools are required to develop a comprehensive plan within one year of obtaining Schoolwide Title I status (ESEA, 1965). The plans "must address the needs of all children in the school, but particularly the needs of children who are members of the target population of any federal education program whose funds are included in the Schoolwide program" (Stavem, 2008, p. 2).

This mixed methods research study examined the way Schoolwide Title I schools in Nebraska are implementing their Title I School Improvement Plans in order to identify needs, challenges, and successes within the Title I program. This research provides educators across the nation with information about the effectiveness of Title I School Improvement Plans, and could be used to offer improved assistance to Schoolwide Title I schools and their students. As a quarter of low-performing schools are rural schools (Manwaring, 2011, p. 18), these findings on school improvement have relevance beyond the state of Nebraska.

Purpose of Study

The purpose of the study was to examine administrative, teacher, and parent perceptions about their schools' Title I School Improvement Plans.

Literature Review

There is no doubt that improving schools in order to improve student achievement is extremely difficult work. It requires "strong leadership, a good plan and lots of communication with relevant stakeholders, including teachers and staff, families and community members" (Manwaring, 2011, p. 16). Robinson and Buntrock (2011) argue that schools that successfully improve have "high-impact leaders and the district capacity to initiate, support and enhance transformational change" (p. 22). Marzano's research supports this belief: "Leadership could be considered the single most important aspect of effective school reform" (2003, p. 172). Leadership influences practically every aspect of the school's organization: the teachers, students, parents, community, administration, and the overall school environment. Strong leaders not only encourage a change in school culture and the development of a clear focus, but are "key to the recruitment, retention, and development of effective teachers" (p. 26). It is important, therefore, that school leaders be given the flexibility to make personnel, schedule, and resource allocation changes (Duke & Jacobson, 2011; Robinson & Buntrock, 2011).

Inevitably, leaders seeking to turn around low-performing schools will face resistance in the form of deeply-entrenched behavior patterns of teachers, students, and parents (Heath & Heath, 2011). Overcoming these patterns means redefining how "administrators, staff and faculty think about and relate to work" (Ulrich & Woodson, 2011, p. 33). Robinson and Buntrock (2011) argue that stakeholders must "view turnaround status as a positive opportunity to transform their schools

rather than a public rebuke for poor performance," and accordingly, turnaround schools must be "desirable places to work" (p. 26). Ulrich and Woodson (2011) discuss the need to forge an identity, purpose, personal relationships, and a positive work environment when trying to improve a school. They suggest that to transform schools in a meaningful way, school leaders must "recognize the interests and unique skills of those they lead and then encourage people to draw on their strengths to strengthen others" (p. 34). Duke and Jacobson (2011) describe successful leaders as having "boundless energy, infectious optimism, sincere regard for students, and an instinctive sense of where to focus resources and energy" (p. 38).

The consistent use of data derived from formative assessments is also necessary for low-achieving schools seeking to be successful (Robinson & Buntrock, 2011, p. 27). Without a good data collection and monitoring system, schools lose track of students' academic improvement and progress in meeting the standards; they can also fail to develop a focus for their school that is based on needs (Duke & Jacobson, 2011). While new teacher evaluation systems incorporating student achievement were "perhaps the most hotly debated education policy issue of the last year" (Manwaring, 2011, p. 18), it is also important that data is a part of teacher evaluation.

Heath and Heath (2011) describe a successful change pattern originally postulated for hospital administrators called the Rider-Elephant-Path game plan, wherein the rational "Riders" of a school are given a path to focus on, while the emotional "Elephants" are given a "jolt of energy and hope" to shake them out of a "culture of failure" (p. 32). According to DuFour (2007):

> When principals focus on creating an environment in which people are working toward a shared vision and honoring collective commitments, an environment in which the structures and supports foster collaborative efforts and continuous professional growth, an environment in which each teacher has someone to turn to and to talk to when confronted with challenges, they address one of the deepest yearnings in the hearts of most teachers: To make a positive difference in the lives of their students. (p. 46)

Methodology

This mixed-methods research study utilized both quantitative survey data and qualitative interview data collected in the winter and spring of 2010. Both the surveys and interview protocols explored seven themes: (a) Title I School Improvement Plans, (b) Clear Focus, (c) Classroom Interventions, (d) Professional Development, (e) Data/ Monitoring, (f) Community Involvement, and (g) Overall Improvement.

Nebraska public school districts were divided into two categories, nonrural and rural, using Locale Codes defined by the Common Core of Data (National Center for Educational Statistics, 2010). Nonrural districts were defined as districts in cities, suburbs, and towns less than or equal to 35 miles from an urbanized area. Rural districts were defined as districts in rural areas as defined by the U.S. Census Bureau. Towns more than 35 miles from an urbanized area were also defined as rural for the purposes of this study. Of the 14 districts participating in surveys, one (7.1%) was classified as nonrural and 13 (92.9%) were classified as rural. Of the seven districts participating in interviews, one (14.3%) was classified as nonrural, and six (85.7%) were classified as rural.

Twenty schools in 14 districts that were currently in "Needs Improvement" status and four schools in four districts that had recently been in the category were invited to participate in surveys. Seventeen schools in "Needs Improvement" status and all four schools that had recently been in the category agreed to participate. Administrators and teachers from these 21 schools were surveyed using an online instrument regarding their perceptions of the Title I School Improvement Process. Administrators responded to a 51-item survey and teachers responded to a 53-item survey in the winter of 2010. Administrative and teacher survey responses ranged from 1 to 5 on the five-point Likert scale with "5" representing *strongly agree*. Of the 14 districts participating, eight (57.1%) returned surveys. Of the administrator surveys returned, 68.4% were from nonrural districts and 31.6% were from rural districts. Of the teacher surveys returned, 60.2% were from nonrural districts and 39.8% were from rural districts.

In addition, open-ended interviews were conducted with administrators, teachers, and parents in seven school districts. Detailed perceptions were collected using an interview protocol. Table 1 depicts the number of responses from both administrators and teachers in each identified theme. These sample districts were selected based on years in Title I (three schools were in their first year in the category, two schools had been in the category for two or more years, and two schools were no longer in "Needs Improvement"), geographic area, Free and Reduced Lunch (FRL) rate, and ethnicity. Forty-eight (48) individual interviews were conducted statewide during the spring of 2010. Interviews were conducted with administrators, teachers, and parents in both elementary and secondary settings. Up to five interviews were conducted within each school district.

Table 1

Interview Themes and Total Coded Responses (2009-2010)

	Number of Coded Responses
Interview Question Themes	
Title I School Improvement Plans	160
Clear Focus	220
Classroom Interventions	349
Professional Development	152
Data/Monitoring	235
Community Involvement	214
Overall Improvement	124
Emerging Themes	
Collaborative Culture	161
Resources	290
Leadership	66
Challenges	64

Note. Demographic data on each of the quotes is included in the article under each theme.

Results

Administrators rated the category Title I School Improvement Plans 4.46, while teachers rated it 3.86. The Clear Focus category was rated 4.57 by administrators and 4.19 by teachers, the highest of any category. Administrators rated the Classroom Interventions category 4.53, while teachers rated it 4.11. Administrators rated the Professional Development category 4.39, while teachers rated it lower at 3.86. The Data/Monitoring category was rated 4.48 by administrators and 4.06 by teachers. The Community Involvement category was rated 3.69 by administrators and 3.31 by teachers, the lowest of any category. Administrators rated the Overall Improvement category 4.26, while teachers rated it lower at 3.84. Figure 1 shows administrators' and teachers' average ratings of the seven categories overall.
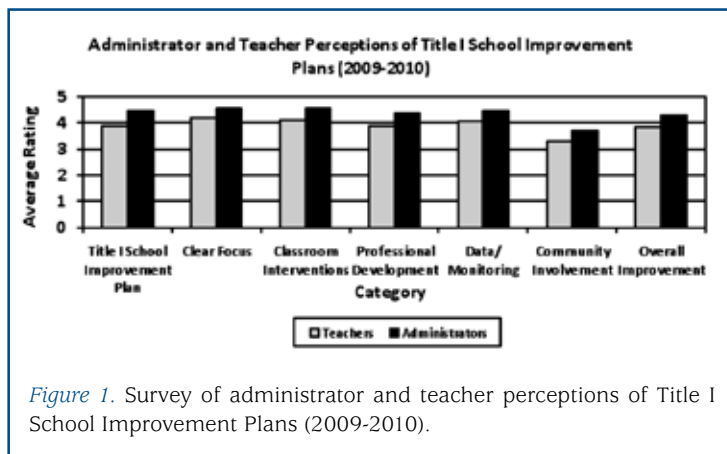

Figure 1. Survey of administrator and teacher perceptions of Title I School Improvement Plans (2009-2010).

Title I School Improvement Plan

The average administrator response in this category was 4.46, higher than the 3.86 average teacher response in this category. However, administrators and teachers rated the same items as "strongly agree" and "strongly disagree." The item rated strongest by both teachers (4.41) and administrators (4.89) within this category was, "The planning process in my school is focused on improving student achievement." A male, nonrural secondary teacher explained, "Through our PLCs (Professional Learning Communities), through staff meetings, we discuss student achievement all the time. I might say, 'what are you doing to make that student achieve higher in your classroom than in mine, and vice versa?'" On the subject of administrator participation and leadership in the Title I process, administrators both rated themselves highly and received high ratings from teachers.

However, responses indicated that teacher involvement in the Title I process might be lacking. The item rated lowest by both teachers (3.18) and administrators (3.74) was "All teachers in my school were involved in the disaggregation of student data to identify Title I Goals." Teachers also gave their second-lowest rating (3.26) to the item "Teachers were involved in the identification of the Title I Goals." A nonrural female elementary teacher shared that at her school, "too few people [were] involved in school-wide goals." Although administrators more strongly agreed with this item (4.51), the second-lowest rating in the category given by administrators was for the item "Teachers in my school understand the Title I Goals and

how to achieve these goals" (4.21). Teachers rated this item between "undecided" and "agree" at 3.81, their third-lowest rating.

Accordingly, there were mixed opinions about whether educators had clear understanding of their schools' Title I Plan and goals. For example, a female rural elementary teacher shared one goal that she was aware of, "I know that we needed improvement in reading." However, when asked "Do you know why you are in Title I?" she responded, "No, I don't think so."

Clear Focus

Educators acknowledged the importance of developing a clear focus on the areas they had identified as in need of improvement. The average administrator response (4.57) and average teacher response (4.19) in the Clear Focus category were the highest average responses given in any category. Administrators rated every item in this category between "agree" and "strongly agree," giving ratings that ranged between 4.47 and 4.74. Teachers rated most of the items close to "agree," giving ratings that ranged between 3.89 and 4.49. This indicates that schools have strongly emphasized the concept of focus on standards and areas of need when developing curriculum and instruction. A female rural secondary Title I coordinator explained, "I think [teachers] are looking at the standards more closely and saying, 'By the time you leave this grade, you need to not just have been introduced to this standard, but have mastered it.' So I do think their teaching has become more standards-based."

Administrators gave the highest rating to the item "The curriculum in my school is aligned with state standards" (4.74). A male rural elementary principal explained,

> We set up time for staff to get together and review the curriculum and tie them to the state standards. Then we looked at our current curriculum and correlated it to the standards, and if we've got any gaps or overlaps, we look at how we can make adjustments.

Teachers gave this item the second-lowest rating in this category, but still agreed with the statement (4.09).

Teachers gave the highest rating to the item "Teachers in my school engage students in order to improve individual and group academic performance" (4.49). A female rural elementary reading coordinator stated,

> I feel like teachers have been a lot more engaged in the students' learning. They pay a lot more attention to what kids are doing on a daily basis and their test scores. Usually within two weeks, a teacher can say, "this kid's failing, what intervention can you help me put in place?"

Administrators rated this item similarly (4.47).

Classroom Interventions

Schools used a vast array of interventions to meet the learning needs of students. The average teacher response in the Classroom Interventions category was "agree" at 4.11, while the average administrator response in this category was higher at 4.53. In general teachers and administrators indicated that they understood the purpose and importance of classroom interventions. Both administrators (4.68) and teachers (4.30) most strongly agreed with the item

"Additional learning time is provided for students who need it." A male rural elementary teacher explained, "We have a lot of teachers that stay after school to help kids, from 3:30 to 4:00 as needed. For 5th grade on up, we have tenth period, which means if they don't have work done, they stay and do work. There's an aide in there to help them." The item that was rated second highest by both groups was "Classroom interventions are used to achieve my school's Title I Improvement Goals" (4.19 by teachers and 4.63 by administrators).

Administrators and teachers differed slightly, however, on their assessment of their schools' use of resources and research-based interventions. The item rated lowest by teachers was "Both external and internal resources are used to develop research-based interventions" (3.98), while administrators gave it the third-highest rating of the category at 4.47. A female rural secondary teacher explained,

> Last year, I didn't even turn in the budget, because we had no money. This year I understand we've been cut $250,000 more. After a while you just go, 'happens every year.' What we're trying to do this year is just the bare minimum. The only thing I'm buying is a consumable vocabulary. The rest I will buy out of my own money.

The item producing the largest discrepancy between teacher and administrator means in this category was "Research-based interventions are implemented based on the data analyzed for my school's Title I Improvement Plan." Teachers were more likely to rate this item "agree" at 4.02, whereas administrators were in more enthusiastic agreement at 4.53. A male rural elementary principal stated, "We were using Response to Intervention (RTI) strategies and we charted all our growth. When we didn't see growth, we'd change the strategy, do something different in hopes of seeing gains."

Professional Development

Both teachers and administrators indicated that professional development at their schools needed to be improved. The average administrator response in the Professional Development category was 4.39, ranging from 4.26 to 4.53. The average teacher response was lower at 3.86.

Educators agreed that what professional development was available was helpful. Both administrators (4.53) and teachers (4.05) gave their strongest rating to "Professional development experiences have led to new classroom practices." A male rural superintendent shared, "We try to train in [APL Associates] every two or three years, because we think it's real, practical stuff that most good teachers probably use, but sometimes forget." The second-highest-rated item for both administrators (4.47) and teachers (4.03) was "Teacher collaboration in my school is a form of professional development used to enhance student learning." A female nonrural secondary teacher explained the impact of professional learning communities (PLCs):

> [The] PLC movement was huge for us. Before that, we were on our own. PLCs just brought it all together. That's when we really started to see a lot of changes: when we had that common time to actually sit, plan, talk about curriculum, talk about students, talk about what was and wasn't going well in our classrooms.

However, the item rated weakest by both administrators and teachers was "Teachers are encouraged to observe each other in the classroom." Administrators rated this 4.26, while teachers rated this item between "undecided" and "agree" (3.67). Although educators stated in interviews that such observations were important for teacher self-improvement, a nonrural male teacher indicated, "It is hard to arrange for the opportunities to make observing in fellow teacher's classrooms happen." The item rated second-lowest by both teachers (3.73) and administrators (4.32) was "Professional development needs at my school were based on analysis of data." Making sure that professional development decisions are based on data may be another area schools need to improve on.

Data/Monitoring

The use of data and the extent to which schools monitor student progress and plan curriculum and instruction varied; teachers and administrators gave a wide range of responses to this category. Administrator responses ranged from 4.16 to 4.89, with an average of 4.48. Teacher responses ranged from 3.72 to 4.38, with an average of 4.06. Educators (4.89 by administrators, 4.38 by teachers) agreed on the item rated strongest: "Data are essential to our school improvement process," showing that educators understand the importance of data to school improvement. A male rural principal explained, "We looked at different types of data sets. It all showed that our reading comprehension was going down as opposed to even staying level or going up. . . . It wasn't hard to say we had to make a change."

However, survey and interview results indicated that the actual use of data was not strong in all schools. The item rated weakest by administrators was "Teachers in my school adjust their instruction in order to attain our Title I Goals" (4.16), which teachers rated similarly (4.10). A male rural elementary principal stated,

> Sometimes I question how much data-gathering you do. Sometimes I think it's too much. My core beliefs are that really good, effective teachers are going to be more effective than keeping score on kids all the time. I think we do too much assessment.

The items rated weakest by teachers were "Every classroom is implementing our Title I Goals" and "Administrators in my school monitor additional learning time for students to ensure success," both receiving a rating of 3.72. It should be noted that administrators either rated these items "agree" or "strongly agree," giving them both ratings of 4.47. This indicates that teachers and administrators are not in agreement as to the frequency and consistency of monitoring that is taking place in schools, with teachers feeling that less monitoring occurs than do administrators.

Community Involvement

The challenge posed by community involvement was made evident by the average administrator (3.69) and teacher (3.31) responses, which were the lowest of any category. Parent involvement was often low in Title I schools. Schools hoped to increase it by using diverse communication methods and expanding after-school programs. Administrators most strongly agreed with the item "The Title I Improvement Plan was communicated to all stakeholders"

(4.47), also rated second highest by teachers (3.61). Schools—especially administrators—made a point of notifying parents and the community of the school's Title I status, as is required by the grant. A female rural elementary teacher stated, "I know our superintendent has put [information about Title I] in newsletters and in the paper. If parents have questions or want to observe a classroom, they're more than welcome to. We've had a few [come in], not very many at all."

The item rated strongest by teachers was "Community members have high expectations for student achievement" (3.65), which was not asked on the Administrator Survey. A male nonrural secondary teacher shared, "When schools and parents come together, there's always a benefit, because the student sees that it's not just the school trying to get you to learn this." A male rural elementary principal discussed parents' awareness of their children's achievement: "There's no reason our parents should not be fully aware of what their child's capabilities are."

However, parent and community engagement in the Title I process received low marks. The item rated lowest by both administrators and teachers was "Community members are engaged in decision making based on data that was analyzed." Administrators (3.16) and teachers (3.06) both rated this item mostly "undecided." The similar item "Community members were involved in identification of the Title I Goals" garnered similarly low ratings from administrators (3.37) and teachers (3.12). A nonrural female elementary principal stated, "Our community group is informed of the goals but did not take part in the decisions. We have parent and community groups but they don't actively work on the improvement plans."

Overall Improvement

The average administrator response in this category was 4.26, while the average teacher response was 3.84. Importantly, the item "Data shows that progress is being made in meeting our Title I Goals" received the strongest level of agreement within the category from both administrators (4.42) and teachers (4.04). A female nonrural secondary teacher provided the example using state writing scores:

> Four years ago, 69 % of our students were proficient in writing. Three years ago, after we started PLC work, we started this common planning, common assessment, big kick on writing in the classroom. That first year we went from a 69 % to a 95 % proficient.

A female nonrural secondary Title I coordinator stated,

> The 6th grade team set Smart Goals and the students were not making them. They were working so hard, they were doing everything correctly. The counselor and I were like, 'but look at that evidence of growth!' So they started charting both. They showed that maybe we didn't [meet the Smart Goals], but from where we were [at] pre-assessment and where we are [now], let's not forget that.

Administrators also rated "The use of our research-based interventions is leading to the attainment of our Title I Goals" the highest rating of 4.42. When a female rural elementary Title I coordinator was asked what she was seeing with the new reading program, she responded, "Huge improvements. The data I look at on a weekly basis, you can see their scores rising."

However, both administrators and teachers rated the item "Community members recognize improvement as a result of our Title I Improvement Plan" the lowest in this category. Teachers rated it between "undecided" and "agree" at 3.46, while administrators rated it "agree" at 4.05. The second-lowest rating was given to "During teacher evaluations, administrators in my school discuss with teachers about the way they are helping students in order to meet our Title I Goals," which administrators rated 4.16 and teachers rated 3.84.

Additional Themes

In addition to these seven themes, four additional themes emerged from the interviews: Collaborative Culture, Resources, Leadership, and Challenges.

Collaborative Culture

Educators emphasized the importance of a collaborative culture to the Title I School Improvement Process, as it allowed teachers to share resources, cooperate on a more cohesive curriculum, and support each other emotionally. A female rural elementary teacher explained, "With us being a small school, we are like a little family. Everybody here is on board. It's easy to ask if you have questions, easy to notice if somebody's confused. We all work really well at reaching that same goal. It's nice." She elaborated, "There's always a teacher that we can go to. It's mentoring, helping one another." A female rural secondary principal implied that steps taken during the Title I School Improvement Process might in and of themselves encourage collaboration: "There's a lot more collaboration between the disciplines and between the levels of the discipline than we've ever had before."

Collaboration took place across grade-levels, disciplines, and school buildings, but could be difficult to coordinate consistently. A male rural superintendent stated, "We had good conversations between our upper elementary and middle school people. We've not done as well with that recently." Teachers and administrators collaborated through formal, regularly scheduled meetings as well as informal conversations throughout the day. A male rural elementary principal explained, "Given the [small] size of our school, teachers go across the hallway and have grade interventions and intermingling. Even though we don't have official meetings, we simply stop and talk about how things are going in the classroom."

Resources

Through federal funding, the Title I School Improvement Process allows schools to use extra resources to support the implementation of their school improvement plans. Educators considered this a major benefit of participating in the Title I program. A female rural elementary teacher stated, "It's been a good thing for us to be in school improvement, because we get the opportunity to get more professional development and individual textbooks, which we need." Schools used these resources to attain new technology (e.g., interactive whiteboards, laptops, projectors, distance learning technology, reading and grading software); extra teachers (e.g., reading and math coaches, home-school coordinators, part-time teachers, and paraprofessionals); professional development opportunities; and new programs and interventions. Educational Service Units (ESUs),

the Nebraska Department of Education (NDE), and consultants were also listed as helpful resources.

A female rural elementary Title I coordinator explained,

> When we were able to take advantage of this opportunity to develop a plan and have some funding to help us with research-based materials and strategies, and extra man-power to help deliver those services, then [it] became, as our principal referred to it, our reward for having [Title I status].

It is vital that schools learn how to manage these resources well. Educators stressed that this involves prioritization and accountability. A female rural elementary principal explained, "Don't go in and ask for something unless you can justify it. You know how you want to spend this money and what you expect to receive from it. That's the way it should be: accountability."

Leadership

Many educators pointed out the positive difference a good leader could make for a school in Title I "Needs Improvement" status. A female rural secondary principal explained, "It's trickle-down. It's important to [our superintendent] so it's important to me, and then it's important to the teachers, and then it's important to the kids."

Although administrators displayed a wide variety of leadership styles, teachers praised similar attributes: having an open door policy, being present in classrooms and hallways, being involved in the Title I process, and earning the respect of teachers and parents. A female rural secondary teacher explained that her principal was "really good about 'let's get together and talk about it.'. . . If you do a good job, you hear 'good job.' That makes a big difference." A female nonrural secondary teacher stated that communication with administrators at her school was "constant," and "They've made it a point to understand where we are in the curriculum. They know where we are in terms of pacing for every curricular area. Very, very involved."

High levels of administrative turnover can negatively impact the school improvement process. In these cases, teachers reported a decrease in staff collaboration and administrative involvement. A nonrural male elementary teacher shared, "Communication is a HUGE problem in my school. [Our] principal does not give information to teachers until the last minute, if even then." It is also inevitable that administrators will make mistakes. A female rural elementary principal explained, "Sometimes you do it and afterwards you think, 'I should have involved this person or that person,' or 'maybe that wasn't my job to do.' But that's part of being an administrator, you do some things right and you do some things not so right."

Challenges

Children from demographic subgroups have specific needs that must be taken into account. A female rural elementary principal explained that her students

> do not bond well with adults because they have basically raised themselves. They are, in their mind, adults already. If you are your own primary caregiver, it's difficult to go to school and look at someone else as a person who is going to inform you or change your life.

A male rural elementary principal stated: "Our kids don't understand what it takes to get to the next level, because they've never witnessed it at home."

For meeting these challenges, effective teachers are just as important as effective administrators. A female rural elementary teacher suggested, "Because some kids don't even have a kitchen table to do their homework, they need to stay here for half an hour and work with us." Still, educators expressed frustration that they could not eliminate these challenges. Regarding student mobility, a female rural elementary teacher shared:

> I wish there was a formula [for] what to do with children that move. It is hard to work so hard on a child, get them rolling, and they're gone. I don't care if they go to the best school in the state, they still miss out, they still have to adjust.

A male nonrural assistant secondary principal noted,

> [Our school] isn't like most schools in Nebraska. It's much more intense; you have to have a passion for it. The teachers said when I arrived, "it takes a special person to work at [our school]." It really doesn't take a special person to work here. To make an impact here, it takes a special person. To be a difference maker, it does take something special.

Conclusion

As illustrated by the survey findings and interview responses, Nebraska Title I "Needs Improvement" schools are focused on improving student learning. These results were categorized according to the themes of Title I School Improvement Plans, Clear Focus, Classroom Interventions, Professional Development, Data/Monitoring, Community Involvement, and Overall Improvement. Additionally, four themes emerged during interviews that were not examined by the survey: Collaborative Culture, Resources, Leadership, and Challenges.

The items "The planning process in my school is focused on improving student achievement" and "Professional development experiences have led to new classroom practices" were the highest-rated items by teachers and administrators in their respective categories. Given the focus on improving student achievement and providing new opportunities for teachers to implement interventions, it is worth noting that both teachers and administrators gave the highest rating in the Overall Improvement category to the item "Data shows that progress is being made in meeting our Title I Goals."

Teacher observation should be pursued as an opportunity for growth in schools, since both teachers and administrators gave "Teachers are encouraged to observe each other in the classroom" the lowest rating in the Professional Development category.

A major factor in the success of a Title I Plan is the involvement of parents and community. Both rural and nonrural educators indicated that engaging parents is difficult due to the many demands placed upon families with children in Title I programs. Teachers and administrators gave the item "Community members are engaged in decision making based on data that was analyzed" the lowest rating in the Community Involvement category. Engaging community members in the Title I School Improvement Process was even more difficult. This is evidenced by the finding that the item "Community members recognize improvement as a result of our Title I Improvement Plan"

was the lowest-rated item in the Overall Improvement category by both teachers and administrators. One successful method of engaging parents was after-school programming. A female rural elementary parent who was also on the school staff explained, "A lot of parents call and say, '[my child] needs to go to the after-school program to complete their homework.' Some parents are really consistent and make sure their kid is here."

Administrators and teachers discussed the importance of focus in planning and implementing school improvement goals. A male rural elementary principal explained, "The more you can focus different aspects of different programs on the same thing is huge. I can really concentrate our efforts and improve one area at a time. Once you do that, you make a lot more progress." The area of greatest focus for the schools in this study was the use of interventions to positively impact learning. However, it is unclear how schools are using data to guide decisions about individual student needs.

It became evident in interviews that many challenges impact Title I students' learning. Many of their teachers indicated the need to depend on each other when trying to improve student performance, thus building a culture that encouraged collaboration. This culture allowed leaders to actively engage with staff and utilize new Title I resources and materials for professional development and student engagement.

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Stereotype Threat and School Belonging in Adolescents From Diverse Racial/Ethnic Backgrounds

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Abstract: *In this study, we extend research on stereotype threat to adolescents and to school belonging. Stereotype threat refers to the impact of societal stereotypes on individual performance. Participants included adolescents from marginalized racial/ethnic minority groups including African Americans, American Indians, and Latinos and nonmarginalized racial/ethnic groups including Asian Americans and European Americans. A subtle manipulation that involved altering the sequence of instruments on a survey was employed to make identity salient and to activate stereotype threat. Results indicated that marginalized minority adolescents in the threat condition reported lower school belonging scores than their counterparts in the nonthreat condition, with a small to medium effect size. Making identity salient did not affect school belonging in nonmarginalized participants. Findings have implications for academic performance in minority adolescents.*

Introduction

Considerable disparities in educational outcomes persist across racial/ethnic minority groups (KewalRamani, Gilbertson, Fox, & Provasnik, 2007). In 2005, just over half of Hispanics and two thirds of African Americans had completed high school by adulthood compared to 90 % of European Americans (KewalRamani, et al., 2007). These disparities have long-term implications, given the strong relationship between educational attainment and earnings in adulthood (U.S. Census Bureau, 2009). A potent explanation for the racial/ethnic patterns in achievement is stereotype threat (Steele & Aronson, 1995). A large literature has emerged showing that when college students from stigmatized minority groups are made aware of negative societal stereotypes about their group, a decline in academic performance is observed. For a recent review, see Davis and Simmons (2009).

However, very little is known about the stereotype threat phenomenon in adolescents, even though this developmental period may be particularly sensitive to stereotype threat. Adolescence is a period of heightened identity formation (Erikson, 1968). For racial/ethnic minority youth, this process involves the consideration of racial or ethnic group membership, which includes associated stereotypes (Phinney, 1990; Spencer, 1995). Instead of stereotype threat, research on racial/ethnic minority adolescents and academic outcomes has focused on school belonging (Faircloth & Hamm, 2005), with studies consistently showing that school belonging positively predicts academic outcomes in adolescents (Osterman, 2000). Thus, in the current study we sought to bring these literatures together, by extending research on

stereotype threat to adolescents and by examining its relationship with school belonging.

Stereotype Threat

Stereotype threat has a negative impact on the academic performance of individuals in marginalized groups (Steele & Aronson, 1995). As Steele (1997) noted, a decline in performance results when individuals are made aware of their membership in a stigmatized group and are in a situation in which a negative stereotype about their group is present. The majority of extant research includes college students as participants and experimental studies conducted in laboratory settings (Steele, 1997; Steele & Aronson, 1995). Researchers typically activate stereotype threat by (a) creating an evaluative situation such as the completion of a high-stakes test, and (b) making racial/ethnic group membership salient. Using this method, Steele and Aronson (1995) showed that African American college students had lower academic scores than their counterparts not exposed to stereotype threat. Similar results were observed with a verbal test in African American college students (Blascovich, Spencer, Quinn, & Steele, 2001).

Several factors have been posited to explain the decrements in academic performance when stereotype threat is activated. These include anxiety (Steele, 1997), a decrease in working memory capacity (Schmader & Johns, 2003), and physiological stress (Schmader, Johns, & Forbes, 2008). For example, Schmader (2010) argued that the process of considering how poor performance on a test may confirm a stereotype taxes cognitive abilities, and, in turn, diminishes performance. In another study, Blascovich et al. (2001) showed that the blood pressure of African Americans increased

in the stereotype threat condition compared to counterparts in the control condition. It is generally believed that encountering negative stereotypes about one's social group will detract from cognitive resources, resulting in a decline in performance (Schmader et al., 2008).

Most of the research on stereotype threat has focused on African Americans, although research with Latinos has shown similar effects. Gonzales, Blanton, and Williams (2002) examined stereotype threat in Latino college students. Results from this study indicated that Latinos scored lower on a test of math and spatial ability than their nonthreatened counterparts. In another study of Latino college students, Schmader and Johns (2003) reported that when a test of working memory was described as a measure related to intelligence, participants in the threat condition scored lower than those not in the threat condition.

Extant research on stereotype threat and adolescents is limited, although adolescence is an especially relevant developmental period to examine stereotype threat. Individuals in this age group are forming an identity (Erikson, 1968). Adolescents from racial/ethnic minority backgrounds also develop a racial/ethnic identity that includes affiliation with a particular racial/ethnic group and the understanding of the stereotypes associated with membership (Phinney, 1990; Spencer, 1995). Stereotypes about academic performance are negative for marginalized racial/ethnic groups, such as African Americans, American Indians, and Latinos. In contrast, stereotypes about the academic performance of nonmarginalized racial/ethnic groups including European American and Asian American are positive. Thus, research on identity formation and racial/ethnic minority adolescents indicates individuals in adolescence will show similar stereotype threat patterns as college students.

A small body of research has examined stereotype threat in adolescents. In a study of high school freshman, African Americans had lower scores on academic tests than European Americans in the same threat-activated condition (Kellow & Jones, 2008). Arbuthnot (2009) examined eighth grade African American students in relation to test-taking strategies. Results indicated that when placed in a high-stereotype threat condition, students employed less advanced test-taking strategies than other conditions. Good, Aronson, and Inzlicht (2003) designed an intervention program for seventh graders that focused on teaching strategies to overcome the anxiety-producing effects of stereotype threat. Adolescents were mentored by college students who encouraged participants to consider intelligence as malleable or as a function of particular educational contexts. Participants were female, minority, and low-income. Results indicated that standardized test scores in mathematics were higher for those participants in the intervention condition compared to those in the control condition.

Research with children provides support for the examination of stereotype threat in adolescents. In a study of Asian American girls, Ambady, Shih, Kim, and Pittinsky (2001) showed a decrease in cognitive performance for participants confronted with a negative stereotype about females and an increase in cognitive performance for participants exposed to positive stereotypes about Asian Americans. McKown and Strambler (2009) showed that African American and Latino children aged 5 to 11 who were aware of broadly held stereotypes about racial/ethnic groups exhibited the stereotype threat effect on a standardized memory task. In sum, research consistently shows when exposed to negative group stereotypes in an evaluative situation, stereotype threat effects emerge on several indices of academic performance.

School Belonging

School belonging is a particularly important factor for the promotion of academic achievement in racial/ethnic minority adolescents (Osterman, 2000). Osterman reviewed the research on school belonging and indicated that definitions of the construct included adolescents' sense of belonging, relatedness, or connection to school, as well as school or classroom membership. Osterman reported that studies have shown school belonging predicted academic outcomes such as achievement, motivation, and the likelihood of dropping out of school, as well as positive attitudes toward class work, teachers, and peers. This author argued that students' sense of belonging to school influences both commitment to school and engagement with school activities, and that these behaviors are directly related to academic outcomes.

Extant research provides support for the positive association between school belonging and academic outcomes. Goodenow (1993) examined school belonging in early adolescents and reported that school belonging predicted academic expectations, values, and performance. Archambault, Janosz, Jean-Sebastien, and Pagani (2009) showed that low levels of school engagement, a conceptually-similar construct to school belonging, predicted high school dropout among adolescents in French-Canadian schools. Faircloth and Hamm (2005) reported that the relationship between motivation and achievement was best predicted by school belonging in African American and Latino adolescents. Sirin and Rogers-Sirin (2004) showed that school engagement positively predicted academic achievement in a subsample of the National Longitudinal Study of Adolescent Health (ADD Health). Participants included middle-class, those living in a household with an income greater than $50,000.00, and were African American adolescents aged 12 to 19. In another analysis of the ADD Health data that included 9th through 11th grade African American students, Sirin and Rogers-Sirin (2005) reported that school belonging positively predicted academic performance.

In a retrospective study of school belonging, Pittman and Richmond (2007) found that college student reports of school belonging, both about high school and college, positively predicted academic achievement and perceived competence in college. Similarly, Walton and Cohen (2007) demonstrated that when African American participants learned they would have few friends in their reported field of study, both their sense of belonging and sense of potential in their future field of study decreased dramatically compared to European Americans. Moreover an intervention that attenuated doubts about belonging increased academic achievement.

The Present Study

The present study sought to extend research on stereotype threat to adolescents and to school belonging by addressing three interrelated research questions. First, does stereotype threat manifest in adolescents? Given that the few extant studies on stereotype threat with children or adolescents have showed similar results with college students (Arbuthnot, 2009) we expected to observe comparable findings. Second, what is the relationship between stereotype threat and school belonging? Prior research shows that school belonging

consistently and positively predicts academic outcomes (Osterman, 2000), so we expected that school belonging would have a similar relationship with stereotype threat as performance on standardized tests; thus, increasing stereotype threat would be associated with reports of school belonging that were lower than nonstereotyped participants. Third, does a subtle manipulation manifest stereotype threat? Specifically, does simply drawing attention to one's racial/ethnic group in a nonevaluative situation prime stereotype threat? Given the interest in stereotype threat topic, we sought to provide information about the methods used to assess the topic.

Method
Participants
Participants included 301 adolescents in the following self-reported racial/ethnic groups: African American ($n = 33$, 11 %), Asian American ($n = 76$, 25 %), European American ($n = 123$, 41 %), Latino ($n = 31$, 10 %), American Indian ($n = 3$; 1 %), Multi-Ethnic ($n = 29$, 10 %), other ($n = 5$; 2 %), and missing ($n = 1$; .5 %) categories. The sample ranged in age from 12 to 19 ($n = 16$, SD = 1.25), was 60 % male ($n = 180$), and included students in Grades 6 to 12.

We classified individuals who reported membership in multiple groups into a single racial/ethnic category, with membership in an ethnic minority group treated as dominant. Thus, a participant who reported both African American and European American group membership was classified as African American. The recoded sample included 35 African Americans (12 %), 85 Asian Americans (29 %), 123 European Americans (41 %), 34 Latinos (11 %), 15 American Indians (5 %), and the remaining participants in multiple group ($n = 3$; 1 %), other ($n = 5$; 2 %), and missing ($n = 1$; .5 %) categories. It is worth noting that analyses were conducted with both forms of racial/ethnic group categorization and no differences were observed.

Measures
Multigroup Ethnic Identity Measure (MEIM)
The *MEIM* measures affiliation with a racial/ethnic group (Phinney, 1992). It includes 20 items rated on a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). The *MEIM* consists of two subscales—ethnic identity (EI; Α = 0.71) and other group organization (OGO; Α = 0.69). An example of an EI item is, "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs," and an example of an OGO item is, "I like meeting and getting to know people from ethnic groups other than my own." Ratings are made on a four-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). Alphas for the current study were as follows: ethnic identity (Α = 0.84) and other group organization (Α = 0.73).

School Belonging
School belonging was measured with the item: "To what extent do you experience a sense of exclusion or a sense of belonging at your school?" This item has been used effectively in prior research on school belonging (Sidanius, Van Laar, & Levin, 2004). Participants responded on a 7-point Likert scale ranging from 1 (*strong sense of exclusion*) to 7 (*strong sense of belonging*). Average school belonging was 5.32 (SD = 1.65).

Control Variable
Socioeconomic status (SES) was included as a control variable. Cohen and Sherman (2005) argued for the inclusion of control variables that eliminate confounding variation among racial/ethnic groups in stereotype threat studies. SES was measured with one item, "How would you describe your family's socioeconomic status?" Participants chose which SES group best described their family's SES on a 7-point Likert scale that ranged from 1 (*poor*) to 7 (*wealthy*). The average SES was 4.20 (SD = 1.29).

Procedure
Participants were recruited from four high schools in Midwestern and Western states (one and three, respectively). Schools were identified through nonprobability sampling. Principals at the high schools volunteered their schools for the purpose of the present study. We were unable to determine the response rate; given the numbers of students in attendance on the day of data collection was not ascertained. Study materials were distributed through the schools. Adolescents who returned completed materials comprised the convenient sample.

We divided participants into marginalized (African American, American Indian, and Latino, $n = 84$; 28 %) and nonmarginalized groups (European American, Asian American, $n = 217$; 72 %). Marginalized groups reflected racial/ethnic minorities associated with broadly held negative stereotypes regarding academic achievement.

Stereotype threat was activated by varying the sequence of questions in the survey. We randomly assigned participants to complete a survey with a demographic form soliciting their racial/ethnic group, SES, and a measure of ethnic identity (i.e., the *MEIM*; Phinney, 1992) either before or after reporting school belonging. Reporting racial/ethnic group identification before school belonging should prime stereotype threat for members of marginalized groups. Prior research with children has shown how presenting pictures of stereotyped racial/ethnic groups evokes the stereotype threat phenomena (Ambady et al., 2001).

Results
Analytic Strategy
We used ANCOVA to examine the effect of the threat condition on school belonging for marginalized and nonmarginalized groups, with SES as a control variable. The model included school belonging as the outcome variable and the following predictors: (a) a dichotomous term indicating marginalized or nonmarginalized group membership, (b) a dichotomous term indicating the threat condition, (c) an interaction term generated by the product of marginalized group and threat condition, and (d) SES. Dichotomous terms were set to values of "1" and "0." Statistical significance was determined with *p*-values less than 0.05. Finally, we interpreted the effect size of results based on guidelines proposed by Tabachnick and Fidell (1996), with $Η^2$ the suggested estimate for the strength of association in an ANCOVA.

Preliminary Analyses
Preliminary analyses included the examination of SES across racial/ethnic group membership. A one-way ANOVA indicated that SES varied among racial/ethnic groups with a small effect size, $F(6, 291) = 3.67$, $p < .001$, $Η^2 = .07$. Asian American adolescents had

the highest overall SES ($M = 4.67$, $SD = 1.02$), followed by African Americans ($M = 4.40$, $SD = 1.67$), European Americans ($M = 4.00$, $SD = 1.26$), American Indians ($M = 3.93$, $SD = 1.53$), and Latinos ($M = 3.79$, $SD = 1.17$). SES was included as a control variable in analyses.

Primary Analysis

Table 1 shows results from the ANCOVA. There was a main effect for marginalized group membership on school belonging ($p < 0.01$), with participants in marginalized groups (i.e., African American, American Indian, and Latino) reporting lower school belonging than their nonmarginalized counterparts (European American and Asian American). Most pertinent to the current study was the significant interaction of group membership and threat condition in predicting school belonging ($p < 0.01$). The effect size for this result was small to medium (i.e., $H^2 = 0.27$). Figure 1 shows marginalized participants in the threat condition reported lower school belonging scores than marginalized participants in the nonthreat condition ($M_{threat} = 4.54$; $M_{nonthreat} = 5.55$) and nonmarginalized participants in the threat or nonthreat conditions, respectively ($M_{threat} = 5.55$; $M_{nonthreat} = 5.41$). School belonging scores did not differ between nonmarginalized participants according to threat condition.

Discussion

We showed that adolescents from racial/ethnic minority backgrounds, such as African American, American Indian, and Latino reported lower school belonging scores than their counterparts when stereotype threat was activated. Simply bringing to mind one's membership in a group that is marginalized was associated with feeling excluded from one's school. These findings extend research on stereotype threat in at least three ways. First, they suggest that adolescents are a meaningful age group for research on stereotype threat. Second, stereotype threat can have an effect on school belonging, an attitudinal variable with a consistent positive relationship to academic outcomes. Third, they show that even a subtle manipulation of identity salience in a nonthreatening context can activate a form of stereotype threat.

The results provide support for additional research on stereotype threat in adolescents and are consistent with the limited prior research with this age group (e.g., Arbuthnot, 2009; Kellow & Jones, 2008) and children (McKown & Strambler, 2009; McKown & Weinstein, 2003). Developmental theory has highlighted the salience of identity in adolescence (Erikson, 1968) and more recent theorizing has extended the adolescent focus on identity to cultural identities such as race and ethnicity in minority adolescents (Phinney, 1990; Spencer, 1995). Because adolescents in minority groups are engaged in reflection about their racial/ethnic identity and what it means in the context of the larger society, they may be particularly sensitive to the stereotypes about their racial/ethnic group membership.

Previous research on African American adolescents has indicated that stereotype threat affects performance on standardized tests (Kellow & Jones, 2008) and the cognitive processing required to access appropriate test-taking strategies (Arbuthnot, 2009). The present study showed that stereotype threat also has a negative effect on attitudes about school belonging. These findings have implications

Table 1

Examining School Belonging by Marginalized Racial/Ethnic Group Membership and Stereotype Threat Condition

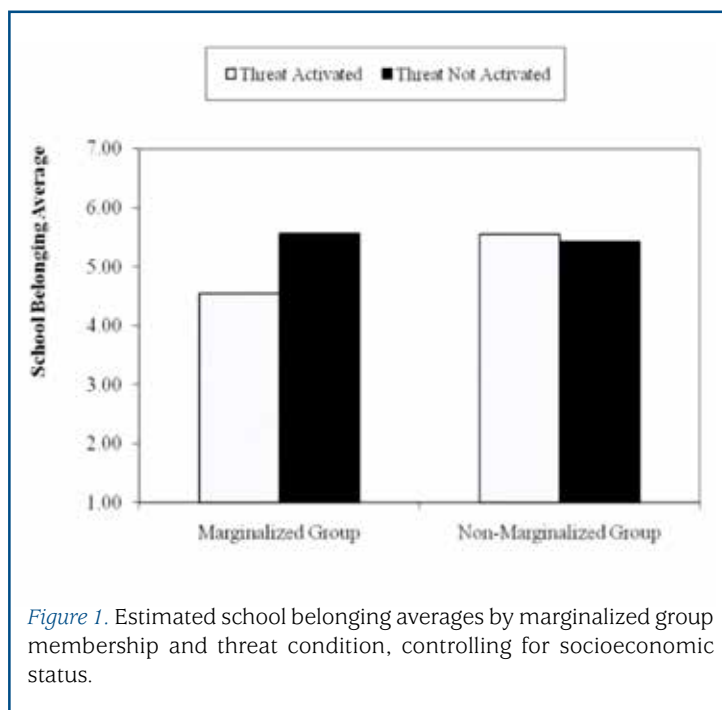| Source	Sum of Squares	df	Mean Square	F
Model	61.47	4	15.37	6.3***
Marginalized Group	17.86	1	17.86	7.32**
Threat Condition	7.94	1	7.94	3.26
Marginalized Group X Threat Condition	18.40	1	18.40	7.54**
Socioeconomic Status	4.91	1	4.91	2.01
Error	663.25	272	2.44	

***p < 0.001, **p < 0.01.

Figure 1. Estimated school belonging averages by marginalized group membership and threat condition, controlling for socioeconomic status.

for educators working with minority adolescents. School belonging is an important predictor of school functioning and has been described as especially useful topic for adolescents from stigmatized minority groups (Faircloth & Hamm, 2005).

We used a subtle manipulation to invoke stereotype threat, and produced results similar to those shown in laboratory studies (e.g., Steele & Aronson, 1995). Specifically, we activated stereotype threat by placing questions soliciting racial/ethnic group membership and ethnic identity either before or after a question on school belonging in a self-report survey. Our findings indicate that simply considering one's membership in a marginalized racial or ethnic group such as African American, American Indian, or Latino may call to mind stereotypes of underperformance. Even in the absence of negative feedback on an evaluative test, members of marginalized groups may be aware of stereotypes with their group and experience a sense of threat. These findings are consistent with those of Ambady et al. (2001) who also employed a subtle manipulation to activate stereotype threat in a study with participants in kindergarten through grade 2. Specifically, the authors used a picture-coloring task to activate stereotypes about gender and racial/ethnic groups. The current study provides preliminary evidence that the phenomenon is robust enough to appear in a survey research design.

Limitations, Future Directions, and Implications

This study has limitations that should be explored in future research. First, the marginalized minority sample in the current study was too small to separate participants into individual racial/ethnic groups. An important direction for future research would involve conducting similar research with specific racial/ethnic groups such as African Americans, American Indians, and Latinos. Second, we used a single item to measure school belonging. Even though this method has proved effective for assessing school belonging in prior studies (e.g., Sidanius et al., 2004), research should examine more nuanced school belonging measures.

Third, future research may further examine SES. Although this variable was controlled for statistically, the marginalized racial/ethnic minority participants in this study were disproportionally from lower-SES groups compared to nonmarginalized adolescents. There is some research suggesting that students from low-SES backgrounds are more vulnerable to stereotype threat than those from high-SES backgrounds (Croizet & Claire, 1998). In this particular study, low-SES participants included those with parents who were employed in occupations, such as manual labor, whereas high-SES included managers and professionals. Further, SES was positioned with racial/ethnic group identity in the survey used for the current study. This prohibited the separate examination of SES and racial/ethnic group membership.

Finally, we used nonprobability sampling to identify the high schools that we used to recruit participants. Given that our study relies on a volunteer or convenience sample, we were unable to estimate sampling error (Pedhazur & Schmelkin, 1991). Further, we did not identify the number of adolescents in attendance in the high schools on the days of data collection, which prohibits the calculation of response rate. The nature of the sample in this study greatly limits its generalizability. Future research is needed that employs probability sampling.

Nonetheless, this study has implications for educators who focus on adolescents who are at risk for poor educational outcomes. As noted, the educational and occupational disparities between marginalized (i.e., African Americans, American Indians, and Latinos) and nonmarginalized (i.e., European Americans and Asian Americans) adolescents are striking. Identifying mechanisms that may facilitate positive outcomes for marginalized adolescents is critically important. Further, adolescents complete high school graduation exams and other tests (e.g., SAT) that have important consequences for college enrollment and employment. If something as simple as changing the ordering of demographic questions and a measure of ethnic identity can mitigate the effects of stereotype threat, this change is worth making.

Last, adolescence may be a particularly useful period for interventions, given the salience of this construct in this period. Indeed, Good et al. (2003) have shown that an intervention program addressing a mediating mechanism of stereotype threat, such as anxiety, can counteract the adverse effects of stereotype threat in minority adolescents. In sum, this study suggests that we should pay considerably more attention to the role of stereotype threat in marginalized racial/ethnic minority adolescents.

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Summer Literacy Intervention for Homeless Children Living in Transitional Housing

Adrienne Lisa Willard and Pamela Hodges Kulinna

Abstract: *This study reports the findings of a six-week summer literacy program conducted at a transitional housing facility for homeless families in the Southwestern region of the U.S. This study is grounded on the body of knowledge on students' literacy and homelessness. The intervention included one-on-one instruction by tutors. This study examined reading scores, attitudes, and the previous home literacy environments of the 12 participants (ages five to 12). Parents and tutors also participated in postprogram interviews (N = 24). Descriptive statistics results showed that reading fluency increased (i.e., words per minute) through the literacy intervention. No significant change in attitude toward reading was found; however, themes within qualitative data suggested that participants' reading confidence and summer reading behaviors increased. Findings give (some) insight into early literacy and home literacy development of homeless children.*

Introduction

With the recent economic downturn and the unfolding foreclosure crisis in the United States, there has been an increase in the number of children experiencing homelessness and poverty, often for the first time (National Center on Family Homelessness ([NCFH], 2008). In 1999, one in 50 children was homeless in this country (i.e., 1.5 million in 1999; NCFH, 1999). Of the homeless children in the U.S., 42 % have been reported as under the age of five (United States Department of Education [USDOE], 2006).

Even before recent increases were recorded in homelessness, homeless children were already experiencing poor academic achievement in reading as the following statistics reveal: (a) 75 % of U.S. homeless children performed below grade level in reading (Rubin et al., 1996); (b) 36 % of homeless children have repeated a grade (NCFH, 1999); and (c) homeless children have twice the rate of learning disabilities and three times the rate of emotional and behavioral problems compared to nonhomeless children (National Child Traumatic Stress Network [NCTSN], 2005). It has been reported that homelessness adversely affects children physically, academically, and behaviorally (NCFH, 2008). A child living under homeless conditions may lack the basic daily sustenance needed for academic success such as adequate levels of rest and proper nutrition (NCFH, 1999). In addition, children experiencing homelessness are four times more likely to be sick in comparison to nonhomeless children and they have four times as many respiratory infections. They also have twice as many ear infections, five times as many gastrointestinal problems, and are twice as likely to have asthma (NCFH, 1999).

Noll and Watkins (2004) indicated that high student absenteeism and family mobility have posed difficulties for teachers and schools, which has negatively impacted student literacy. The authors have also noted factors such as poor concentration and a lack of daily preparedness (e.g., completing homework) resulting from not having necessary materials or a place to study as hindrances to literacy development. These stressors also place an additional burden on children's mental health, which can greatly affect the social and emotional development of youth.

Impact of Homelessness on Early Literacy Development and Reading Development

The onset of homelessness during early literacy development can impact future reading success for a child. Knapp and Winsor (1998) reported that children who did not learn to read or fell substantially behind their classmates in reading skills during their first three years of school, typically did not catch up in later grades. Children experiencing homelessness are four times more likely to show delayed development (NCFH, 1999). Delayed development and early reading failure have been cited as reasons for referral to special education, later grade retention, academic failure, dropping out, and lack of adult employability (NCFH, 1999).

The reading development literature indicates that oral language is the foundation for literacy. According to the American Academy of Pediatrics (2011), a child is considered at risk for developmental delay in oral language if they do not speak at least 15 words by the age of 18 months. Since children develop their understandings of the written word based on oral language skill and their knowledge of the world

around them (Hanning, 1996), the very first teacher for any child is a parent. Parents serve as the most important first link to oral language development in their children. In fact, some authors suggest that the home literacy environment is a stronger predictor of later literacy than socioeconomic status (Hanning, 1996). Children growing up in families that value and enjoy reading, and have access to a variety of reading materials, become stronger readers than those without such familial support. Reading aloud to children is perhaps the best known and most commonly used one-on-one reading intervention (Knapp & Winsor, 1998). Children see and hear models of good reading; they become familiar with common written syntax and text structure; they come to value and enjoy books and reading (Knapp & Winsor, 1998). In addition, reading aloud with a child and clarifying the meaning of the text helps the child to internally decode language, which is a cognitive skill required to read.

Homelessness and the Home Literacy Environment

Due to the insufficient research base on the literacy environment of homeless families, successful literacy programs in other settings have been examined. For example, Walker-Dalhouse and Risko (2008) studied the Brownstone School in the Bronx, New York. It is an example of a successful, accelerated learning, after-school program that serves homeless children. It provided effective one-on-one tutoring, homework assistance, and theme-based educational activities to accelerate learning. Moreover, the school encouraged parent involvement through learning contracts, participation in family literacy workshops, field trips, and additional staff support to communicate with parents at parent-teacher conferences. Hanning (1996) further discussed this model program reporting that the Brownstone School children had shown improved scores in reading, math, science, and school attendance. These studies support the tenet that homeless students can thrive in well-supported literacy environments that offer one-on-one instruction.

The effectiveness of one-on-one instruction has also been shown with students considered at risk for school failure or identified with a reading or learning disability (Elbaum, Vaughn, Hughes, & Moody, 2000). One-on-one instruction, provided as a supplement to classroom instruction, has been considered one of the most effective ways of increasing student achievement. Classroom teachers identify it as the ideal teaching practice. Teachers report, however, that they are rarely able to implement it in their classroom (Moody, Vaughn, & Schumm, 1997).

Homeless parents may not be able to offer assistance in one-on-one instruction or reading support or modeling. The typical home literacy environment may be far from ideal. First, there is no stable home environment, but instead a transitory existence that consists of moving from shelter to shelter or place to place. Parents may be more concerned with obtaining food and tracking down other basic necessities than assisting with reading and homework. Rafferty, Shinn, and Weitzman (2004) compared homeless students to their nonhomeless peers. They found that children who were homeless had a higher rate of school mobility than their housed peers. Changing schools hinders children's academic progress (USDOE, 2006). The USDOE has consistently identified movements among multiple

schools as one of the major barriers to school success for children who are homeless.

Most (> 80 %) of single-parent homeless families are also female-headed. As such, they are among the poorest in the nation and many have been on public assistance. Of these single mothers, 53 % do not have a high school diploma (NCFH, 1999). This statistic suggests that these children may lack a positive literacy role model or parent with the capacity to read to them. In addition, the USDOE (2006) has also reported that 42 % of homeless children are below the age of five and are significantly underrepresented in preschool programs. This suggests that nearly half of the homeless children are also not getting the proper head start education needed to succeed in school.

Access to Books and Rewards as Intrinsic Motivators

One other area of investigation that informed this study involved students' access to books and other reading materials and the role of resources in promoting literacy in homeless students. Since homeless families lack disposable income to purchase books, providing free books to homeless children or at least access to books while they are residing in shelters or transitional housing facilities may be essential to building and maintaining literacy skills and creating an optimal home literacy environment. Books serve to entertain, educate about choices, and to expose homeless children to people like themselves who have persevered and overcome incredible barriers. Text-to-self and text-to-world reading strategies have been successful ways for early readers to begin to comprehend stories about others and the world. According to Kim (2007), giving children free books to read has been an effective strategy for keeping disadvantaged children engaged in reading when schools are closed for summer vacation. Kim (2007) reported that low socioeconomic status and few books in the home were reasons for the achievement gap in reading between White and minority children. Further, he reported that results from his summer reading program showed low-income children owned significantly fewer books than middle-income children.

Disadvantaged Children and Literacy Development

Only a few sustained and comprehensive studies exist on homeless children and literacy development (e.g., Hanning, 1996; Sinatra, 2007). The rationale for this project, therefore, was to gain insight into this population and early literacy issues, since it is difficult to isolate even a small segment of the homeless population for any sustained length of time. Since homeless populations tend to be highly mobile, the setting in this project (i.e., transitional housing) allowed a somewhat stable opportunity to study children's literacy issues because families reside at this facility for up to a year.

Burkam, Ready, Lee, and LoGerfo (2004) as well as Cooper, Nye, Charlton, Lindsay, and Greathouse (1996) have reported that summer vacation had a larger negative effect on reading achievement for low-income children. Moreover, Sinatra (2007) cited results from 39 studies, concluding that low- and middle-class students lost approximately three months in reading and language achievement during the summer months. When these findings are coupled with the already lagging reading scores of homeless children, it could equate to even

further declines in reading achievement for homeless children during the summer months. The current study is unique in that it includes a group of students who were living in a transitional housing setting during the study, while previous research studies (Alexander, Entwisle, & Olson, 2001; Kim, 2004) have included low-income disadvantaged children, but not homeless children.

Purpose. The purpose of this study, therefore, was to examine the effectiveness of a summer literacy program on the reading scores and attitudes toward reading of homeless children residing at a transitional housing facility for homeless families located in the Southwestern U.S. The study also addressed deficiencies for this population in the areas of book ownership. The specific research questions examined in this study addressed the effect of a six-week summer literacy program on (a) reading performance, (b) attitudes, and (c) self-confidence (as observed by tutors). This study also investigated the roles of early literacy home environment, access to books, and external rewards on children's literacy and related factors.

Method
Participants

Twelve children residing at a transitional housing facility participated in this study. There were seven males and five females. Of the 12 participants, eight completed the entire study, two moved away during the study and two completed all aspects of the study except the posttest. Of the participants who moved away, one family moved suddenly for unknown reasons and the other family was asked to move out of the facility for violating the rules. All participants were considered at-risk youth since they lived in poverty and qualified for transitional housing for homeless families. The children had the following ethnic backgrounds: (a) White ($n = 5$), (b) Hispanic ($n = 5$), and (c) African American ($n = 2$). All children were English speakers.

Students ranged in age from 5 to 12 years old and were in grades pre-k to sixth grade. In the sample, there were preschool grade ($n = 2$), kindergarten ($n = 2$), first grade ($n = 1$), second grade ($n = 1$), fourth grade ($n = 3$), fifth grade ($n = 1$) and sixth grade ($n = 2$) students. All of the parents were identified as single head-of-household mothers with the following educational attainment: college graduate ($n = 1$), some college ($n = 3$), high school graduate ($n = 5$), and some high school ($n = 1$). All but one of the children was eligible for federally subsidized lunch based on household income. The tutors who worked with the 12 children at the transitional housing center consisted of adult females ($n = 5$) and peers ($n = 7$) comprised of four males and three females ranging in age from 9 to 17 years old. Human Subjects approval was obtained and parents/tutors provided informed consent while children provided their assent.

Recruitment

An experimental six-week literacy program that met twice a week for two hours was adopted as part of the summer programming schedule at a community center located at a transitional housing facility for homeless families in the Southwestern U.S. The students were paired with an adult or peer tutor for the entire six-week program with all assessments performed by adult tutors. The tutors were from the local community who responded to outreach flyers posted at local churches, retirement communities, and college campuses. In addition, some tutors responded via word-of-mouth requests from other tutors. The student participants were signed up for the program by their parents that responded to solicitation announcements that appeared in the community's monthly newsletter and flyers that were delivered door-to-door to residences at the facility.

Instruments

Four instruments were used in this study. Prereading-postreading tests were used. Student participants also completed a pre/posttitude survey. Parents completed a behavior survey (posttest only), and interviews (parents and tutors) with field notes taken throughout the project.

Dynamic indicators of basic early literacy skills (*DIBELS*). The *DIBELS* informal reading test, otherwise known as the Oral Reading Fluency (ORF) measurement, was administered to the students' pre- and postintervention. *DIBELS* was developed by Good and Kaminski based on initial research conducted at the University of Oregon in the 1980s. The instrument version used for the current study was published in 2007. The informal reading test has previously shown that it produces reliable and valid scores with youth (e.g., Good, Gruba, & Kaminski, 2001). It is a timed one-minute reading passage that provides a student's grade equivalent reading score. It was administered by reading a brief instruction prompt, pointing to a passage, starting the stopwatch and beginning the test when the student read the first word. The administrator (adult tutor) crossed out the words read incorrectly and subtracted them from the total words attempted in the passage. A bracket was made after the last word read in the passage. *DIBELS* employs a hesitation rule where the administrator waits three seconds before telling the student the word and the word is then crossed off the passage as an indication that it was not known. There is also a discontinue rule that is activated if no words are read correctly in the first row. The pretest reading score provided a zone of proximal development, which was the reading level range from which students' self-selected books from the library. In order to support this model, staff and tutors at the community center organized and color-coded books in the library by reading level for easy selection by participants.

Since the intervention occurred during the summer, the grade recorded was the grade the student attended the previous school year. For testing purposes, a Grade 1 student was given a Grade 1 *DIBELS* pretest and their scores were compared to the end of the year benchmark for that grade level. For the preprimary readers in the sample, tutors administered *DIBELS* letter and sound recognition pretests-posttests. This two-part test rated whether a pre-k student was at risk by identifying their Letter Naming Fluency (LNF). Students identified letters in the alphabet that were out of alphabetical sequence by pointing to the letter in the random sequence and naming it. Initial Sound Fluency (ISF) was evaluated by having students identify pictures of items that began with the same sound. For example, a student was shown a sheet with four pictures on it. The tutor would point to each picture and say "This is mouse, flower, pillow and letter." The student was then told that mouse begins with the sound /m/. Then the student was asked to identify which picture begins with the sound /fl/. Identifying seven or less letters or seven or less initial sounds would qualify a student as being at risk for poor language or

reading outcomes. Tutors were provided with phonics materials to teach letters, sounds, and blends to pre-k students during the study.

Student attitude survey. The second instrument measured students' attitudes toward reading using the Elementary Reading Attitude Survey preintervention-postintervention, which has previously shown that it produced reliable and valid scores with youth (McKenna & Kear, 1990). It provided a quick indication of student attitudes toward reading. It took about 10 minutes to administer and consisted of 20 items. Each of the items had a brief statement about recreational or academic reading followed by a picture of the cartoon character Garfield poised in four different moods ranging from positive to negative (e.g., How do you feel about reading for fun at home?). Students circled the response that described their attitude ranging from the happiest Garfield with four points to the very upset Garfield scoring one point. It was then scored by totaling the score for the first 10 items which indicated a recreational reading score and then by scoring the last 10 questions in order to provide an academic reading score. Raw scores ranged from 10-40 for each test and were then converted to percentile ranks from 0 to 99 (e.g., 10-80) by grade level using a table provided by the authors. These scores indicated attitude toward recreational and academic reading compared to national averages by grade. For instance, a raw academic score of 25 for a sixth grade student is equivalent to a rank in the 54th percentile, which indicates a slightly indifferent attitude toward academic reading.

Parent behavior survey. A parent reading behavior survey was developed for this study and was completed by parents at the end of the intervention. It asked two questions about home literacy environment using a Likert scale of 1-5 with an anchor of 5 as (*strongly agree*) and anchor of 1 (*strongly disagree*) to measure parents' home reading enjoyment pleasure. Another three questions asked parents how often they read for pleasure, read to their child, and if they read to their child as a toddler. For this series of questions, a Likert scale of 1-5 was used with anchors of 5 for (*always*) and 1 indicating (*never*). The survey also asked parents the age or onset of oral language development in their child and questions about their child's literacy habits including the total number of books owned, types of books preferred, and total minutes read per week prior to the study. Further questions inquired about first time homeless status, how many times the child had changed schools in the last two years, special education services, and the parents' educational level.

Interviews and field notes. Finally, interviews with parents and tutors were also conducted at the end of the study using a general interview guide. Tutors were asked to keep a journal to record their observations throughout the intervention. Observations recorded in journals included auditory, visual, kinesthetic, environmental, and behavioral issues and events. Tutors also completed log sheets of books their students read by title, author, and reading level.

The interview guide included questions such as: (a) reading behaviors observed for students; (b) effect of project on their own reading behavior (i.e., tutors and parents); (c) effective motivators that encouraged their child to read during the project; and (d) the typical summer reading behavior of their child.

Data Collection/Procedures

Tutors were given information regarding reading benchmarks by grade and were instructed on how to use testing instruments during a two-hour training session held prior to the study. For the student participants, a brief orientation was conducted at the first meeting to discuss the criteria for milestones and to go over the rules for completing the program. Students were then assigned to tutors and the adult tutors administered the reading and attitude pretests. Once students' pretest scores were coded on a spreadsheet and stratified by grade and then by reading level, students were assigned to reading levels.

Intervention. A paired-reading (one-on-one) model was used and supplemented with group sessions and creative activities that focused on comprehension. In paired reading, the adult and the child first read a text aloud simultaneously, in chorus. In this way, the tutor supports the child in reading initially difficult words while simultaneously providing a model of more expert reading (Knapp & Winsor, 1998). The child can then read on his/her own and for the tutor, which helps the student build confidence. Participants were expected to spend 50% of their time reading one-on-one with their tutors and the other 50% of the time completing comprehension worksheets, playing literacy games, or completing creative activities related to the story. The second session during the week included small reading group sessions that focused on a theme that helped relate text-to-self and text-to-the-world. The adult tutors took turns leading the various weekly group sessions. These sessions aimed to not only model reading but also to engage the students in discussions about the book, build their interest in the story, and increase comprehension. On three occasions, two of the older children read and modeled reading for the whole group.

Students were encouraged to read a set number (i.e., 20) of self-selected books from the library that contained 1,500 preauthorized books. Overall, the model was set up much like a read-a-thon or summer library reading program where participants received rewards when they reached milestones. For this study, a child received 100 points valued at one dollar toward purchasing *Scholastic* books at a book fair that was held at the end of the study. Students received trinkets from a treasure chest when they hit 5-, 10-, 15-, and 20-book milestones. The *Scholastic* Book Fair (prize earned) contained over 500 book titles including popular fiction and nonfiction books plus posters; art kits; and school supply items such as pens, pencils and erasers.

Data Analysis

Descriptive statistics were calculated for reading fluency (i.e., *DIBELS*), the student attitude survey, and the parent reading behavior survey. Interviews and journal entry data were reviewed for emerging themes using constant comparison.

Results and Discussion

There were five research questions addressed in this study. The first three questions addressed effects of the intervention program on students' reading performance, attitude, and self-confidence. The other research questions investigated the role of access to books and early literacy development on reading performance outcomes and related factors such as external rewards.

Reading Performance, Attitude, and Self-Confidence

Students who read at grade level or above recorded the most improvement from the intervention with an average increase of 32 words per minute (see Table 1 for *DIBELS* results). Students' attitudes towards reading remained relatively stable from pretest-posttest.

Tutors and parents reported that the children had higher levels of reading self-confidence at the end of the project. Successful participation in the program helped build students' confidence and they were observed having fun while reading. For example, Jill (adult tutor) stated "I think once he had a little more confidence in himself, once he felt like he could do this, then he paid attention more. I think his confidence in himself was building. He smiled more. He was a little more talkative." Mary, another adult tutor, stated "You could tell how excited he was to be reading the words. He worked very hard today." Interviews with parents indicated that without this study, their children would not have read as much as they did over the summer. Patricia, a parent, said "Just some nights he was more into reading books. I see that he is reading more on his own. It was a good program for him." This was a notable positive effect of the program on children who otherwise would not be spending time reading by choice. This was a critical finding since many in the group were struggling readers who did not enjoy reading on their own. A few parents reported that their children read and engaged in literacy-related activities more, which they said were atypical behaviors for their children during summer months. This in turn prompted some parents as well as tutors to read more; for example, Brenden, an 11-year-old tutor, stated "Actually yes. I did start reading a little bit more after the program." Meg, another parent, also noted "Yes, I read stuff like (magazines) and romance novels (more)." Tanner, a 12-year-old tutor, said "Just the fact that I saw someone a lot younger than me reading constantly I just realized that if I just took the time to read more often I could just finish so many books and it would be a good experience for me."

Access to Books, External Rewards, and Influence of Early Literacy and Home Literacy

It was unanimous from interviews and journal entries that the students were motivated by the external rewards. Students picked trinkets from a treasure chest when they hit the 5-, 10-, 15-, and 20-book milestones. These prizes included books, play dough, bubbles, jump ropes, balls, cars, candy, cards, games, dolls, stuffed animals, and action figures. Group sessions also included prizes and snacks. By including food and prizes, it helped the program attract and retain students.

Table 1

Oral Reading Fluency Scores

Participants	Grade	Gender	Reads at Grade Level	*DIBELS* Pretest	*DIBELS* Posttest
100	Pre-K	M	Preprimary	*23 LNF / 8 ISF*	*No test*
101	Pre-K	F	Preprimary	*5 LNF / 6 ISF*	*13 LNF / 21 ISF*
102	4	M	Below grade level*	52	61
103	6	M	Yes	142	166
104	5	F	Yes	138	194
105	1	F	Yes	75	91
106	K	M	Below grade level	*Moved*	*Moved*
107	6	F	Below grade level*	46	61
108	2	M	Yes*	*Moved*	*Moved*
109	K	M	Yes*	10	8
110	4	M	Below grade level*	19	29
111	4	F	Yes	*157*	*No test*

Note: Preprimary assessments include LNF = Letter Naming Fluency and ISF = Initial Sound Fluency.

* = special education services received or student was being evaluated for services.

Students read nine to 22 books (Mean = 16). Students earned just over $240 in books, which was $20 per participant toward *Scholastic* books. The book prizes students selected included popular nonfiction books (e.g., *Diary of a Wimpy Kid, Percy Jackson, and Haddix*). Comments from parents and tutors about what they thought motivated the participants confirmed the external motivation. Tanner, a 12-year-old tutor, stated "The fact that she was able to read. . . . She just wanted to go straight for the prize." Mary, an adult tutor, also stated "For her age, it was the prizes. It was a big deal to her." Finally, Patricia, a parent confirmed "I think he was wanting to learn more and [to earn] the prizes. He said some of them would be nice to have."

Information compiled on participants' book ownership indicated that they preferred nonfiction, adventure, action, and fairy-tale books. Survey data also showed that 50 % of the participants owned over 50 books. Of those with fewer books, three students reported owning 20-50 books and two students indicated owning no books at all.

Parents reported on factors influencing early literacy development. For example, two parents reported rarely reading for pleasure, while the rest indicated reading "often" or "always" supporting that literacy modeling was occurring more regularly with this group of parents than previously reported for parents of disadvantaged youth. There was also a notable qualitative shift in the results, suggesting a decrease in parents' reading to children as the child aged.

Since most of the parents indicated reading to their child as a toddler, this may reflect a home environment where reading was valued. This positive environment may also account for the number of homeless students in this study that read at grade level (i.e., 60 % versus the national average of 25 %). Of the students that read at grade level or above, the majority (10 out of 12) were also read to as a toddler. However, for the lowest readers in the group, two of them were "never" or "rarely" read to as a toddler according to the parent survey. This suggests that the home literacy environment may be a stronger predictor of later literacy success than socioeconomic status as suggested by Hanning (1996).

Parents also reported their child's total weekly reading minutes (prior to the project and thus before the summer months). Of the 12 student participants, four read under 30 minutes a week and another eight read between 30-90 minutes a week, one student read 180-220 minutes a week, and finally, one student read 280-320 minutes a week. Overall, of those participants that read at or above grade level, five of six read between 30-90 minutes a week, (20 minutes a day). Interviews with parents, however, suggested that these children do not typically read for this amount of time during the summer months.

One area that needs further investigation is the age or onset of homelessness and its effect on early literacy development. The current sample consisted of seven children that identified themselves as being first time homeless. The other five children had been homeless at least one time before. Of the 10 students in kindergarten or above, five indicated changing schools more than two times in the last two years. The other seven students, all of which were first time homeless, had not changed schools and three of them read at or above grade level. The parents further indicated that nine out of 11 students spoke their first words by 18 months of age. Two students did not speak any words by 18 months suggesting a possible developmental delay early in childhood.

There may be a relationship between being homeless and being on an Individual Education Plan (IEP) at school since four students indicated they received special education services and five were being evaluated for special education services. Three out of the four students identified the reason for the IEP as "reading disability." One other kindergarten student was being evaluated for an IEP based on symptoms of Attention Deficit Disorder. This is a rather large percentage of the sample (42 %) when compared to the national average (12 %). It should also be noted that of these five children, four were identified as children with minority heritages of Hispanic (*n* = 3) and African American (*n* = 1). Three out of five also identified themselves as being homeless more than one time.

Conclusions

Results from the current study suggest that a summer reading program conducted at a homeless shelter helped to counteract the negative effects of a summer vacation on reading achievement. Students stabilized or improved their reading scores by reading an average of 16 books during the six-week program. Students also appeared to have increased levels of self-confidence toward reading as reported by parents and tutors. The effectiveness of the current reading intervention may have been related to its comprehensive nature, including tutors, one-on-one instruction, self-selection of library books, and external rewards. Kim (2007) also reported that the reading of four or five books during the summer had the potential to prevent reading achievement loss from spring to fall. Sinatra (2007) in his review of 39 studies reported that low- and middle-class students lost approximately three months in reading and language achievement during the summer months. In addition, contrary to previous studies of disadvantaged youth (e.g., Kim, 2007), the current project found that most (i.e., 10/12) homeless students owned at least 50 books.

One-on-one instruction, provided during the summer in a shelter-based setting, was an effective way of increasing reading fluency. By using trained tutors, adults, and peers, students were able to build relationships that helped them build self-confidence and improve their reading fluency. This allowed the children to have a literacy role model who offered assistance with decoding unfamiliar words and monitoring their comprehension. In addition, the tutors challenged students to continue reading and expanding their vocabulary. One limitation of the current study, as with most homeless populations, was the mobility of the participants. Two students dropped out of the summer reading program when their family moved away, and two other students did not return to take their posttest at the end of the project.

The key variables necessary for an effective intervention of this kind appeared to include one-on-one instruction, tutors, instruments that produced reliable and valid scores, access to books, and external rewards. Through the current intervention design, summer vacation became a beneficial period for homeless students where they improved or at least maintained their reading fluency levels. This was important especially for students in their first three years of school. Research suggests falling behind during primary years leads to future reading failure (e.g., Knapp & Winsor, 1998). Interventions during this critical period (primary grades) could help close the achievement gap

since summer vacation typically has a larger negative effect on the reading achievement of low-income children who already in most cases have lagging reading achievement scores. It may also help end the cycle of poverty for these children.

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Is the Black-White Achievement Gap a Public Sector Effect? An Examination of Student Achievement in the Third Grade

Kathryn Simms

Abstract: *Prior research has suggested private school education in middle school and high school as a solution for the Black-White achievement gap. However, more recent research calls this solution into question. Additionally, research increasingly implicates third grade as being of preeminent importance in driving students' subsequent academic achievement. Consequently, this study relied on a nationally representative sample to compare standardized test scores of Black and White third graders who attended private schools. Regression analysis revealed achievement gaps in reading, math, and science. These achievement gaps were not significantly different from those detected in public schools. Hence, school vouchers may be inadvisable for most minority students.*

Introduction

An achievement gap between Black and White students has been documented consistently at all education levels. Recent analysis indicated that among all first-time, postsecondary students, 36 % of White students attain bachelor's degrees within six years compared with only 17 % of Black students (Radford, Berkner, Wheeless, & Shepherd, 2010). Of fourth and eighth graders who scored above the 75th percentile in reading and math on the National Assessment of Educational Progress (NAEP) in 2011, more than 70 % were White and fewer than 8 % were Black—despite some narrowing of average achievement gaps since the early 1990s (National Center for Educational Statistics [NCES], 2011a; 2011b). Fryer and Levitt (2004) have detected evidence of the Black-White achievement gap as early as kindergarten, and Burchinal et al. (2011) identified this gap among low income children as young as three years old in the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development (NICHD SEC-CYD).

This pervasive Black-White achievement gap has severe long-term consequences because it perpetuates historical racial differences in socioeconomic status (SES)—where SES is generally measured through a three-pronged approach: educational attainment, income, and occupational status. In particular, the Black-White achievement gap is directly connected to educational attainment (Radford et al., 2010). Furthermore, education also has an indirect impact on the remaining components of SES through its association with lifetime wage premiums (Taniguchi, 2005) and through its relationship to minimum eligibility requirements in most higher status professions.

Before proposed remedies for the Black-White achievement gap can be assessed, the genesis of the gap must be better understood. Consequently, in the next section, I review three potential explanations for the Black-White achievement gap tested in the empirical literature: family background, peer pressure, and school effects. In doing so, I place particular emphasize on the focus of this study (i.e., school sector).

Explanations of the Black-White Achievement Gap
Family Background

Extant literature reports a strong correlation between family background and the Black-White achievement gap. Yeung and Pfeiffer (2009) tested this correlation via the Panel Study of Income Dynamics (PSID) on an initial sample of about 3,500 children under age 13 in 1997, followed to 2002 and 2003 when participant ages ranged from 8 to 18. Hierarchical regression analysis indicated that gaps in letter-word scores through sixth grade and applied problems scores up to third grade were accounted for by children's early family backgrounds (e.g., grandparent's education, characteristics related to the mother [e.g., teen birth] and the child [e.g., birth weight], SES; family structure; and other family characteristics). By high school, although early family background continued to have explanatory power, it no longer accounted for 50 % to 75 % of achievement gaps evaluated. Gutman, Sameroff, and Eccles (2002) found that recent family risk factors also had explanatory power among 837 African American seventh graders in the Maryland Adolescent Development In Context (MADIC) study. More specifically, a risk index predicted grade point average, number of school absences, and math

achievement—where the measure of risk included current maternal SES, maternal depression, single parenthood, the presence of three or more children in the same household, recent stressful family events (e.g., unemployment), and neighborhood poverty.

The literature also has identified positive family characteristics and proactive behaviors that bolster academic achievement among African Americans. These characteristics and behaviors have included consistent discipline and decision making (Gutman at el., 2002), and educational resources (e.g., more than 50 books at home [Roscigno, 1998]). Other supportive family-related factors are high parental expectations for educational attainment, parental school involvement, extracurricular trips and classes, and saving for college (Charles, Roscigno, & Torres, 2007).

Peer Pressure

The Black-White achievement gap has sometimes been attributed to Black students' fear of being alienated from their Black peers should they emulate more academically successful White students. This fear—commonly called the fear of "acting White"—is typically credited to Fordham and Ogbu (1986). Despite its relatively lengthy history, Fordham and Ogbu's (1986) theory is controversial and has uneven empirical support.

In their survey of 166 gifted Black students in two school districts in Ohio, Ford, Grantham, and Whiting (2008) uncovered support for the theory of "acting White" and concluded:

Specifically, acting Black is associated with negative behaviors, low intelligence, disinterest in school and achievement, poor language skills, and a preference for urban clothes. On the other hand, acting White is associated with positive behaviors and positive stereotypes—being intelligent, caring about school, doing well academically, being well behaved, and being perfect. Acting White is also associated with being arrogant or believing that one is better than others. (p. 232)

However, larger sample research tends to report that White peer groups hold more negative stereotypes about academic achievement than do Black ones (Roscigno, 1998)—challenging the creditability of the theory of "acting White" as an explanation for the Black-White achievement gap. Additionally, much of the qualitative literature has suggested that although pressures of "acting White" exist, this phenomenon is complex and far from pervasive. In a study of college-bound African American females, Horvat and Lewis (2003) concluded that pressures of appearing too academically successful among some peers were offset by other supportive peer relationships as well as by strong Black identity. Additionally, Tyson, Darity, and Castellino (2005) reported that self-doubt, not peer pressure, precluded higher performing African Americans from enrolling in advanced coursework. Among more at-risk students, Chavous et al. (2003) determined that strong, positive ethnic identity was associated with higher levels of educational attainment.

School Effects

Nonsector specific school effects. Much of the literature implicates schools as contributing to the persistence of Black-White achievement gaps. Oates (2009) found that school quality (e.g., percent of graduates who attend college) and teacher perceptions (e.g., perceptions about which students complete homework) were the primary explanations of the Black-White achievement gap based on structural equation modeling conducted on the National Educational Longitudinal Study. Hanushek and Raymond (2005) further established that No Child Left Behind (NCLB) has had little impact on achievement gaps and that these gaps are perpetuated by increasing minority concentrations in schools. Hanushek and Rivkin (2009) estimated that reducing minority concentration and inexperienced teachers would eliminate between 15% and 20% of the growth in the achievement gaps from fourth to eighth grade based on Texas administrative data. Condron (2009) concluded that although class gaps widen in the summer, achievement gaps widen during the school year—implicating schools as contributing to the Black-White achievement gap.

However, the prior evidence is not incontrovertible. Ferguson (2003) clarified that teachers' expectations have been classified as biased when these expectations have correctly incorporated students' past performances. His review of the literature suggested that teacher perceptions of past and current performance are unbiased—although he affirmed that teacher expectations may in some ways contribute to the achievement gap. Bali and Alvarez (2004) questioned the association between minority concentrations and achievement gaps by exploring outcomes in the Pasadena Unified School District (PUSD), where the average White student attended 66% minority schools. Achievement gaps developed that were not explained by numerous measures of school quality (e.g., the percentage of fully credentialed teachers, years of teaching experience, number of computers per student, class size. and state benchmarks of school quality). Additionally, Downey, von Hippel, and Broh (2004) concluded achievement gaps increased less rapidly during the school year than during the summer—suggesting that schools may be part of the solution to the achievement gap.

Private schools as a solution to the achievement gap. Potentially, school sector rather than the preceding, more generic criticisms might help both explain and remedy the achievement gap. Given existing enrollment patterns in private schools, however, the potential for private school education to provide a comprehensive, naturalistic solution appears unlikely. Available evidence suggests not only that African American students are underrepresented in U.S. private schools today, but also that their enrollment in private schools has declined over time. More specifically, Betts and Fairlie (2001) reported that Black students represent 16% of private, primary school enrollment and 11% of secondary school enrollment based on 1990 Census Micro-data. National Center for Education Statistics (NCES) reported that, during the 2009-2010 school year, only 9% of the 4.7 million students enrolled in the nearly 33,400 private schools in the United States were Black (Broughman, Swaim, & Hryczaniuk, 2011).

Evidence from qualitative research indicates considerable diversity in the range of experiences that underrepresentation in private schools might trigger for Black students. For example, Perry (1988) provided an autoethnography of a 15-year-old female Black student who enrolled in public school out of a sense of racial isolation after

10 years of private school education. She discovered that her new public school prized rote memorization and good behavior. It did not emphasize the intellectual abstraction that she had become accustomed to in her private school. Both racially and intellectually isolated in her advanced classes in public school, she returned to private school. DeCuir-Gunby (2007), on the other hand, describes the cultural isolation of six, high achieving Black students at a private, college preparatory school. These students explained that they did not have equal opportunity at their private school. Its rigid class structure fostered greater privileges for traditional White students, so that African Americans could not fully participate in its educational and cultural benefits.

Although insightful, qualitative research is not intended to provide conclusive evidence about the impact of private schools on the education of Black students as a whole. Much of the early large-scale, quantitative evidence concluded that Catholic schools in particular offered an advantage for African American students. This evidence was primarily based on nationally representative data from High School and Beyond (HS&B), which followed U.S. high school sophomores starting in 1980. Hoffer, Greeley, and Coleman (1985) reported that Catholic school students in HS&B were at least half a year ahead of public school students on average—with even greater benefits accruing to Black students. Explanations for better performance among Catholic school students included greater academic rigor and more homework. Sander's (2000) subsequent analysis of HS&B suggested that homework was a less likely explanation for White students' performance in Catholic schools than for minority students. More specifically, he estimated that White students in Catholic schools did an extra 15 - 30 minutes of homework per week, but that minority students did an additional 1.5 - 2.5 hours of homework per week.

More recent analysis suggests that private school advantages may have dissipated. Hallinan and Kubitschek (2012) compared the academic achievement of sixth and eighth graders in Chicago public schools and Catholic schools from 2001 to 2004. On the whole, neither private nor public school students exhibited a pattern of superior performance. Black students in Catholic schools tended to have higher reading scores (i.e., 3 points higher in sixth grade and 5 points higher in eighth grade). At the same time, the growth in their math scores was 6 points lower in sixth grade, and 8 points lower in eighth grade in comparison with public school students.

S. T. Lubienski and C. Lubienski (2006) relied on math achievement scores from the 2003 administration of NAEP to examine a more comprehensive set of private schools: Catholic schools, Lutheran schools, conservative Christian schools, and other private schools. Initial analysis indicated certain private school students had higher scores than did public school students. In particular, math achievement scores among Catholic and other private school students were 14 points higher, whereas students in Lutheran schools scored 21 points higher. After the introduction of demographic control variables, differences in math achievement were significantly negative for Catholic school students by 3.6 points, conservative Christian school students by 10.6 points, and other private school students by 2.3 points. Public school students' and Lutheran students' math scores were no longer significantly different.

Purpose of the Study

This study contributes to the literature by evaluating the achievement gap in private schools at third grade, a period much earlier than traditionally examined in the literature. A single year of poor academic performance is not an inevitable death knell for any given student's future academic performance. However, empirical evidence implicates academic achievement in third grade as a pivotal predictor of future academic performance and attainment among students as a whole. Lesnick, Goerge, Smithgall, and Gwynne (2010) detected a chain reaction related to third grade reading achievement in particular—based on an initial sample of 25,948 Chicago Public School (CPS) third graders in 1996-1997 and 2008. More specifically, reading below grade level in third grade was associated with lower reading achievement in eighth grade; which was associated with lower ninth-grade course performance; which was associated with reduced high school graduation and college attendance. The net impact of this chain reaction was that less than 20% of students who read below grade level in third grade attended college. Similarly, Hernandez (2011) concluded that in comparison with proficient readers in third grade, students who were not proficient were four times less likely to graduate from high school—based on 3,975 students in the National Longitudinal Survey of Youth.

The importance of third grade extends beyond reading achievement. Based on a sample of 538 children in Greensboro, North Carolina, McClelland, Acock, and Morrison (2006) detected stability by third grade in poor learning skills (e.g., self-regulation, responsibility, independence, and cooperation) initially identified in kindergarten. Poor learning skills in turn were correlated with lower reading and math achievement through sixth grade controlling for such factors as IQ, race, and maternal education. Additionally, Grimm's (2008) latent growth curve analysis indicated that reading comprehension in third grade was associated with higher order math skills (e.g., problem solving) through eighth grade in a sample of 46,373 CPS students.

Method

Data for this study were obtained from the third grade wave of the ECLS-K (NCES, 2004). ECLS-K student-level participants (N = 21,260) were selected initially during kindergarten through three-stage-probability-weighted sampling, where the primary, secondary, and tertiary sample units were (1) geographic area, (2) school within geographic area, and (3) student within school, respectively. The third-grade database (2001-2002) consists of cognitive assessments; physical measurements of height and weight; and student, parent, teacher, and school administrator responses to structured interviews or questionnaires.

Participants

Our sample consisted of all Black students in the ECLS-K in 2002 who were (a) enrolled in a private school, (b) on grade level, and (c) who had standardized test scores on the NCES assessments in math, reading, and science (n = 129). The restriction on grade level caused 11 Black students to be excluded from the study (i.e., eight were enrolled in second grade; two were in fourth grade; and one was enrolled at a school where grade levels were not determined).

Additionally, four Black students were excluded from the study because these participants had at least one missing assessment score.

The number of Black children who attended private school differed substantially from the number of White students who attended private school (n = 1,822). To avoid complications that differences in sample sizes might create for statistical testing, I drew a stratified random sample of White students (n = 129) from the ECLS-K. This second sample satisfied the same three criteria as the Black sample, and was stratified by private school type (i.e., Catholic school, other religious school, nonreligious school) to reflect the private school types of the African American sample. Table 1 provides more detailed descriptive statistics about the sample.

Table 1

Descriptive Data for Student Subsamples by Race

Measure	Black Students		White Students	
	n	%	n	%
Gender				
Male	55	42.6	54	41.9
Female	74	57.4	75	58.1
SES				
SES quintile 1	6	4.7	1	0.8
SES quintile 2	8	6.2	4	3.1
SES quintile 3	38	29.5	22	17.1
SES quintile 4	44	34.1	35	27.1
SES quintile 5	33	25.5	67	51.9
School Status				
Catholic school	77	59.7	77	59.7
Other religious	42	32.6	42	32.6
Other private school	10	7.7	10	7.7
Total participants	129	100	129	100

Measures

Assessments. Students' standardized assessment scores in math, reading, and science served as the dependent variables in our analyses. NCES administered these standardized assessments one-on-one with students during the spring of third grade. Reliabilities of these assessments were measured as theta and were considered to be high (i.e., .95 for math, .94 for reading, and .88 for science; Tourangeau et al., 2004). NCES established content and construct validity for these assessments through expert panel and pilot testing as well as through comparisons with national/state standards and commercial/state achievement tests.

Race and other covariates. Race was dummy coded so that 1 = Black student; 0 = White student. Similarly, gender was defined so that 1 = Male and 0 = Female, whereas Catholic schools were designated as 1 and non-Catholic schools were designated as 0. School enrollment was assessed through an indicator variable ranging from 1 (0-149 students) to 5 (750 or more students). Finally, SES was evaluated by quintiles for descriptive purposes as well as via a continuous variable for inferential purposes.

Data Analysis

Preliminary data analyses consisted of descriptive analyses of the dataset and a univariate comparison of Black and White student standardized tests scores (i.e., *t*-tests both with and without a Bonferroni correction for serial analysis of the data). Subsequent regression analysis controlled for SES, gender, school enrollment, and Catholic school attendance. Additionally, interactions were evaluated to determine whether regression results differed by race. Standard errors and significance testing were corrected through Am Version 0.06.03 Beta. Analyses were weighted with the appropriate sample weight provided in the ECLS-K dataset (i.e., the cross-sectional weight for student assessment and parental interviews—with parental interviews having provided the necessary data for the determination of SES).

Results
Univariate Results

Table 2 indicates that Black students' mean scores in reading, math, and science were over a standard deviation lower than those of White students. These differences are significant with or without a Bonferroni correction for serial analysis. White females outscored White males in reading without a Bonferroni adjustment. No other significant differences related to gender were detected for either White or Black students. Additionally, no significant differences were found between assessment scores for Catholic versus non-Catholic schools for either race.

Multivariate Regression

Table 3 reports the results for three multivariate regressions where standardized test scores in reading, math, and science served as the dependent variables. Analyses were controlled for race, gender, SES, school enrollment, and Catholic (versus non-Catholic) school type. Race and SES were consistently significant in each regression. Being a Black student was associated with about 12-, 13-, and 8-point lower scores in reading, math, and science, respectively. A one unit increase in SES, on the other hand, was associated with 9-, 9-, and 6-points higher scores in reading, math, and science, respectively. No other variables in any of the regressions were significant, but each regression had reasonable explanatory power (i.e., R^2 = .30, .38, and .42 for reading, math, and science, respectively). The interaction between Catholic school and race and the interaction between race and gender were tested in supplemental analyses, but were not found to be significant. Subsequent analysis indicated that the achievement gaps identified among private school students did not differ significantly from those exhibited by their peers in public school.

Table 2

Means, Standard Errors (SE), and Standard Deviations (SD) of Standardized Test Scores in Reading, Math, and Science for Private School Students by Race, Race/Gender

Category	Reading	Math	Science
Race			
White students			
Mean (SE)	118.763* (1.646)	92.334* (1.459)	38.692* (1.074)
SD	14.744	13.604	8.975
Black students			
Mean (SE)	101.605* (2.047)	74.704* (1.592)	27.767* (0.933)
SD	17.025	14.292	8.039
Gender Comparisons by Race			
Female White students			
Mean (SE)	121.605** (2.220)	91.007 (1.726)	38.171 (1.487)
SD	14.122	13.351	9.270
Male White students			
Mean (SE)	114.325 (2.198)	94.407 (2.656)	39.507 (1.482)
SD	14.600	13.737	8.429
Female Black students			
Mean (SE)	101.534 (3.007)	73.219 (2.135)	26.683 (1.116)
SD	18.768	14.532	7.881
Male Black students			
Mean (SE)	101.707 (2.504)	76.846 (2.413)	29.331 (1.593)
SD	14.136	13.656	8.008

*Significantly different $p < .001$ across like assessments. Results were significant with or without a Bonferroni correction for serial analysis of the data.

**Significantly different $p < .05$ across like assessments. Results were significant without a Bonferroni correction for serial analysis of the data.

Table 3

Regression Analyses: Predictions of Reading, Math, and Science Achievement Scores

Covariates	Reading		Math		Science	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
			87.562*	3.386	32.673*	2.142
Constant	111.214*	3.960				
Black	-11.810*	2.537	-13.175*	2.218	-7.566*	1.440
Male	-3.318	2.543	3.019	2.055	1.638	1.228
SES	8.809*	2.366	9.078*	1.911	5.786*	1.191
School enrollment	0.675	1.309	-0.403	1.119	0.323	0.671
Catholic	3.146	2.665	1.898	2.005	1.846	1.226
R2	.296		.381		.416	

Note. Black student = 1; White student = 0. Male = 1; Female = 0. Catholic School = 1; non-Catholic school = 0.

*$p \leq .001$.

Discussion

Our findings contribute to the debate about school choice as a solution to the achievement gap by evaluating the achievement gap in a pivotal year in education, third grade—with third grade achievement and learning skills being highly associated with both subsequent educational achievement and attainment (Grimm, 2008; Hernandez, 2011; Lesnick et al., 2010; McClelland et al., 2006). Our analysis indicated that a Black-White achievement gap exists in private schools by third grade in reading, math, and science. Furthermore, this achievement gap did not differ significantly from the Black-White achievement gap in public schools.

Our findings should be evaluated in consideration of several limitations. First, our analysis was correlational and not causational. Additionally, our study does not attempt to account for unobserved factors that might drive one set of students to attend private school instead of public school. However, prior literature has suggested that private school students and their families may be more educationally oriented (C. Lubienski, Weitzel, & S. T. Lubienski, 2009), so that failure to control for these unobserved factors only biases private school students' achievement upward. Additionally, findings are indicative of differences in private and public schools as a whole, and individual cases may vary substantially from average.

Our study has important implications for policymakers. In particular, it suggests that the use of vouchers may not be effective for reducing the Black-White achievement gap. If policymakers continue to favor vouchers, then these vouchers should be accompanied with comprehensive evaluations of school choice options that include an accurate system of school ratings. These evaluations should also provide a caveat that, on average, private school enrollment is not associated with reduced achievement gaps. This suggestion is well aligned with other literature that has concluded that only regulated school choice is likely to be effective (Cobb & Glass, 2009).

Additionally, this study has important implications for parents. Despite unprecedented demands that they face, parents remain the ultimate stewards for their children. If they want to consider private school education for their children, then, at present, nothing exists to substitute for their personal assessments and investigations of private school alternatives. Regardless of their choice of school sector, African American families in particular must personally advocate for their children to protect them from alienation and exclusion from advantages in both sectors. I find it necessary, but unsettling, that this advice has to be given to African American parents—many of whom are less accustomed to navigating the educational system on behalf of their children and, therefore, at a disadvantage.

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