

Summer Literacy Intervention for Homeless Children Living in Transitional Housing

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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/postattitude 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	<i>DIBELS</i> Pretest	<i>DIBELS</i> 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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