1. This study examined the relationships between students’ attendance at full-day, half-day, or no preschool and first grade reading achievement. 214 urban, low SES public first grade students of mixed ethnicities were studied. Using the students’ Developmental Reading Assessment (DRA2) scores (Beaver, 2006), results indicated that by the middle of first grade students who completed one year of full-day preschool significantly outperformed students who did not attend preschool. Students who completed one year of full-day preschool also outperformed students who completed half-day preschool, although not to a significant degree. Additionally, students who completed half-day preschool outperformed students who did not attend preschool, although not to a significant degree. The results further showed that significant differences between the groups were not apparent at the start of first grade, demonstrating that preschool attendance may not show immediate, positive benefits.

**Keywords:** urban education; literacy education; early literacy

The United States has recently experienced a tremendous growth in early education programs (Gormley, Gayer, Phillips, & Dawson, 2005). These programs are designed to provide a pathway of support for young children to enter kindergarten with the skills, knowledge, and behaviors associated with school success (Gormley et al., 2005). Research has demonstrated that preschool education can contribute to many areas of children’s learning and development; however, it is unclear whether if the gains acquired in preschool are long lasting (Barnett & Hustedt, 2003). Thus, controversy exists regarding whether or not investment in public preschool education is a wise move for taxpayers, communities, and federal and state governments.
Arguments for Preschool Education

Research has established that preschool education can produce substantial gains in children’s early learning and development, especially for children in poverty (Barnett & Hustedt, 2003). Studies done by Barnett & Camilli (2002) found that preschool education yielded persistent gains on achievement test scores, fewer grade retentions, and a lower number of children being placed in special education programs. Coolahan, Fantuzzo, Mendez, and McDermott (2000) similarly found that attendance at early intervention preschool programs for low-income children was related to increased intellectual ability, achievement, and self-concept, as well as reduced grade retentions and special education placements.

Three studies described by Bracey and Stellar (2001) provided evidence of high-quality preschool producing long-term, positive outcomes. The oldest of the three studies is the High/Scope Perry Preschool Project, which was started in the mid-1960s, designed for African American children in Ypsilanti, Michigan. The project involved an experimental group of children who attended half-day preschool for 8 months and received weekly 90-min home visits by members of the project staff versus a control group of students who did not attend preschool. The impact of the High/Scope Perry Preschool Project is still under examination for subjects at age 40; however, results have been reported on participants who reached the ages of 19 and 27.

At age 19, the preschoolers had higher graduation rates and were less likely to have been in special education. The graduation rate effect, though, was limited to females. The preschoolers also had higher scores on the Adult Performance Level Survey, a test from the American College testing Program that simulates real-life problem situations. By the time the two groups turned 27, 71% of the preschool group had earned high school diplomas or GEDs, compared to 54% of the control group. The preschoolers also earned more, were more likely to own their own homes, and had longer and more stable marriages. Members of the control group were arrested twice as often, and five times as many members of the control group (35%) had been arrested five or more times. (Bracey & Stellar, 2001, p. 781)

The second study, the Abecedarian Project, identified children at birth and provided them full-day preschool for 50 weeks a year, from birth until they entered school. Adults conversed with children, showed them toys and pictures, and offered them opportunities to react to sights and sounds in their environment. As the children got older, the interactions between the adult and children became more skill and group oriented. A 1988 follow-up study of the subjects at age 21 found that young adults who had taken part in the Abecedarian Project...
completed more years of schooling than the controls. More members of the experimental group were still in school and more had enrolled in 4-year colleges. The experimental group was also less likely to smoke or to use marijuana. Participants who had been in the program for 8 years demonstrated greater reading skills and math skills than those in the control group.

The third large, long-term study of preschool education and outcome is the Chicago Child-Parent Center Program. The focus of this program emphasized three major areas: body image and gross motor skills, perceptual/motor and arithmetic skills, and language. In a 20-year follow-up study, participants at age 21 who had taken part in the project had lower crime rates, higher high school completion rates, and fewer grade retentions.

The three preschool programs described above were costly to taxpayers; however, subsequent research indicated that the investments were cost-effective (Barnett, 1996; Masse & Barnett, 2002; Reynolds, Temple, Robertson, & Mann, 2002). As an outcome of the three projects, society received 4 dollars in return for every dollar invested. The children who took part in the preschool programs earned US$143,000 more during their lifetimes than those who did not. In addition, mothers of the preschool-enrolled students earned US$133,000 more during their lifetimes than those who did not participate in the program. Bracey and Stellar (2001) reported that the children of the children who participate in high-quality preschool programs will earn more and experience better life success as a consequence. Barnett and Hustedt (2003) agreed that long-term benefits from preschool education include increased high school graduation rates and decreased crime and delinquency rates.

**Arguments Against Preschool Education**

Although much research has established that preschool education produces short-term and long-term academic and social benefits, and is cost-effective, the case for preschool education is not conclusive. For example, research on early education has focused on preschool attendance effects on the IQ scores of children and has found that few preschool programs produced lasting gains (Barnett & Hustedt, 2003). Even the highest quality full-day preschool programs have not shown positive, long-term effects on IQ (Barnett & Hustedt, 2003).

Marcon (2002) examined 160 children who had formal preschool training and observed their academic progress in fifth and sixth grade compared to students who had not received formal preschool at age 4. Marcon reported that no differences attributed to preschool education were found for special education placement. Furthermore, by the end of the children’s
5th year in school, there were no differences in academic performance, and by the end of their 6th year, children who attended preschool earned significantly lower grades (Marcon, 2002).

In an effort to explain these findings, Marcon (2002) wrote about the potentially negative effects of preschool curricula that may have become too academically oriented, and, as a result, developmentally inappropriate for the needs of young children. She stated, “Their [children enrolled in preschool] progress may have been slowed by overly academic preschool experiences that introduced formalized learning experiences too early for most children’s developmental status” (p. 18), and “In the ongoing debate over education reform designed to improve performance of American children, preschools are under increasing pressure to offer instruction in basic academic areas” (Marcon, 2002, p. 2).

Although the goal of academic success is shared among educators, parents, and policy makers, strategies for achieving the goal vary. Some parents, educators, and policy makers argue that instruction in preschool is too formal for a young child, whereas others insist that growing academic demands in kindergarten require young children to be formally introduced to reading and mathematics instruction in preschool settings. Goffin (1994), Elkind (1986), and Zigler (1987) expressed concern about the wisdom of overly formal instructional practices on young children. They feared that short-term academic gains would be offset by the long-term stifling of children’s motivation and self-initiated learning. Research by Hart, Charlesworth, Burts, and DeWolf (1993) showed that these concerns were warranted. Their work indicated that children whose preschool experience emphasized child-initiated learning had lower conduct problems, better work habits, an increased willingness to follow directions, and that the children appeared to be more social than students enrolled in more formal, academically oriented programs. Walsh (1989), as reported by Marcon (2002), predicted that the likelihood that children will experience a highly formal, teacher-centered approach to preschool is increasing with universal prekindergarten, which is, therefore, causing the preschool experience to be even more like elementary school.

Some researchers also argue that high-quality preschool education is not available to all children and that the costs are extremely high. A majority of children that participate in high-quality preschool are poor children (Marcon, 2002). Thus, little research exists on the long-term benefits of preschool for middle-class children and, as a result, a true assessment of the value of preschool to all children is not possible (Bracey & Stellar, 2001). Most high-quality preschools (curriculum based; not child care) are
funded by the government and state and are provided to those in lower classes and in poverty (Barnett & Hustedt, 2003). Other high-quality preschools tend to be very expensive because they are run by private, for-profit companies; therefore, families of the children must pay out of pocket for the service (Bracey & Stellar, 2001). The cost of publicly funded preschool to the government and state is substantial and raises a question regarding taxpayers’ funding preschool education. Bracey and Stellar (2001) reported that taxpayers are concerned with whether or not the costs are truly beneficial.

Preschool Education and Literacy Achievement

Many studies have shown a strong relationship between early literacy skills acquired during a child’s first 5 years of life and later literacy success (Adams, 1990; Pullen & Justice, 2003; Yaden, Rowe, & MacGillivray, 2000). Early literacy skills most often cited as essential to literacy achievement include general oral language ability (Snow, Burns, & Griffin, 1998), vocabulary knowledge (Beck & Mckeown, 2001), phonemic awareness (Shaywitz, 2004), letter identification (Adams, 1990), and knowledge of print concepts (Morrow, 2001). However, despite a strong research base that demonstrates the critical importance of early literacy skills acquired during children’s first 5 years of life, only a handful of studies have actually examined the relationship between preschool participation and subsequent literacy achievement.

Gormley et al. (2005) examined the effects of universal pre-k on approximately 3,000 children’s cognitive development. The term “universal” pre-k is used most often to describe statewide, state-funded initiatives to offer preschool to all children. In their work, Gormley et al. found significant positive effects in the literacy areas of letter-word identification and spelling for students who attended Oklahoma’s universal pre-k. Furthermore, as reported by Gromley et al., studies of Georgia’s universal pre-k (Henry, Gordon, Mashburn, & Ponder, 2001; Henry et al., 2003) showed that 82% of children who attended the program performed better than average on third grade, nationally normed tests. Positive effects in these studies were especially pronounced for children of low-SES (socioeconomic status) backgrounds. Gromley et al. also reported that Xiang and Schweinhart (2002) found positive effects on literacy achievement evaluating Michigan’s universal pre-k program.

measures of phonological awareness, letter knowledge, and listening comprehension, the researchers reported that “during the preschool year individual differences in reading grew larger and that this growth was faster among those who entered preschool with well-developed skills. However, during the first grade, individual differences in reading diminished” (p. 73). Leppanen et al. labeled these growth patterns as trajectories. They stated that preschool students displayed “cumulative” trajectories in which differences between students increased during the year. In contrast, first-grade students displayed “compensatory” trajectories in which differences between students decreased during the year. The findings from this study are contrary to Stanovich’s (1986) widely quoted “Matthew Effects” in which early literacy achievement sets the trajectory for all subsequent achievement with “children of differing abilities show[ing] a widening of individual differences in reading performance across time” (Leppanen et al., 2004, p. 72).

Theoretical Frame and the Current Study

Studies regarding the effects of preschool education on literacy achievement can be framed from multiple theoretical perspectives (Tracey & Morrow, 2006). However, the emergent literacy theoretical perspective (Clay, 1966) seems particularly pertinent. As Tracey and Morrow explained,

Emergent literacy refers to a period in a child’s life between birth and when the child can read and write at a conventional (approximately third-grade) level. . . . Emergent Literacy Theory is built on a set of beliefs regarding the ways in which children’s early literacy development occurs. One of the central tenets of Emergent Literacy Theory is that children’s development in the areas of listening, speaking, reading, and writing are all interrelated. . . . A second central belief is that literacy development starts at birth and is continuous and ongoing. . . . Emergent Literacy Theory underscores the finding that although many factors are important to children’s reading success, including parents’ education, occupation, and socioeconomic level, the quality of the literacy environment correlates most closely with children’s early literacy ability. (pp. 85-86)

Thus, applying emergent literacy theory, participation in environments that are specifically designed to foster children’s listening, speaking, reading, and writing skills should be associated with greater literacy achievement than nonparticipation. Similarly, greater amounts of time in such environments should be associated with greater literacy achievement gains than lesser amounts of time in such environments.
The Current Study

Given the controversy regarding the impact of preschool education, particularly in light of the current debate regarding statewide, state-funded universal pre-k, and given the small number of studies that have specifically examined the effects of preschool participation on reading achievement, the present study was designed to examine the effects of preschool attendance on first-grade reading achievement. Using an emergent literacy theoretical frame, it was hypothesized that increased amounts of time spent in preschool would be associated with increased first-grade literacy achievement.

Method

Participants

The study involved a northeastern, diverse community comprising of a population of approximately 22,000. Although the community is small, it is located within 15 miles of two of the largest urban cities in the nation, thus sharing many of its neighboring cities’ characteristics. Demographics indicate that approximately 46% of the community is African American, 40% is Caucasian and 15% is Hispanic; however, many of the Caucasians do not use the public school system resulting in a school population of approximately 62% African American, 26% Hispanic, 11% Caucasian, and 1% Asian. The estimated median household income in the community in 2005 was $66,900.

The subjects were all students enrolled at an early childhood center that is part of the community’s public school district. At the time of the study (the 2006-2007 academic year), the school housed 830 students with grade levels ranging from preschool to second grade. The school contained 37 regular education classrooms and 5 special education classrooms. The 37 regular education classrooms were comprised of 6 full-day preschool classrooms, 10 kindergartens, 10 first-grade, and 11 second-grade classrooms. Data were collected on all first-grade students (n = 232) enrolled in the school during the 2006-2007 academic school year.

Materials

A total of 232 student cumulative folders were used to obtain knowledge of each child’s past preschool experience, and fall and spring first-grade reading levels. Reading levels reported in the cumulative folders were deter-
mined by the students’ classroom teachers using the Developmental Reading Assessment, Second Edition (DRA2; Beaver, 2006), as is the normal procedure within the school district. The DRA2 is an individually administered reading assessment that can be used to determine a student’s independent reading level and also determine areas of weaknesses and strengths. Data on approximately 1,900 students presented by the company that publishes the DRA2 (Beaver, 2006) show statistically appropriate differences in text difficulty between grade-level passages, statistical similarities on within-grade-level passages, and a reliability measure of more than .75 on internal consistency for comprehension questions.

Procedure

The researchers examined all \( n = 232 \) first-grade students’ cumulative folders and placed each student in one of three groups: those who attended full-day preschool, those who attended half-day preschool, and those who did not attend preschool at all.

A total of 87 of the first-grade students had attended full-day preschool. All of the students who attended full-day preschool were enrolled at the public, early childhood center described above. According to the preschool’s handbook, the full-day program is based on a whole-child philosophy that incorporates developmentally appropriate, research-based practices. The curriculum encompasses knowledge, skills, and applications in all developmental domains (cognitive, language, social/emotional, and physical) with respect for individual, family, cultural, and socioeconomic variation. The curriculum also emphasizes the importance of play in early childhood development and is thematically designed. Classroom instruction makes use of learning centers and family resources. Enrollment at the early childhood center is based on a first-come, first-serve basis, and the center is funded by the state through Early Childhood Program Aid (ECPA) funds.

In all, 86 children attended 64 different half-day preschools. Given the large number of half-day preschools represented, descriptions of these programs were not obtained.

Another 41 students did not attend preschool at all. Furthermore, children who participated in preschool out of the country and children who were retained in first grade were eliminated the study.

Following assignment into one of the three categories (full-day preschool, half-day preschool, and no preschool), fall and spring first-grade DRA2 data were examined for the participating 214 students. A statistician completed three statistical evaluations. First, an analysis of variance (ANOVA) was run on the September DRA2 scores of the three groups of
Results

Tables 1, 2, and 3 illustrate the results of a comparison of the first graders’ September DRA2 scores. Results indicated no significant differences between the September means of the three groups of students.

The results of Levene’s test (.591) of homogeneity of variance indicate that the groups’ September variances are approximately equal.

Tables 4, 5, and 6 illustrate the results of a comparison of the first graders’ January DRA2 scores. Results indicate no significant differences between the January means of the three groups of students.

The results of Levene’s test (.983) of homogeneity of variance indicate that the January groups’ variances are approximately equal.
Tables 7, 8, and 9 illustrate the results of a comparison of the first graders’ DRA2 gain scores. Results indicate a significant difference between at least two of the groups’ gain scores.

The results of Levene’s test (.448) of homogeneity of variance indicate that the groups’ gain variances are approximately equal.

Tables 10 and 11 illustrate the source of the statistical difference identified in Table 9. Results indicated that students who participated in full-day preschool made significantly greater gains in reading during the first half of first grade than students who did not attend preschool. Students who participated in full-day preschool also outperformed students who completed half-day preschool, although not to a significant degree. Furthermore,
**Table 6**

ANOVA Results for Students’ January DRA2 Scores

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>63.301</td>
<td>2</td>
<td>31.650</td>
<td>1.602</td>
<td>.204</td>
</tr>
<tr>
<td>Within groups</td>
<td>4168.330</td>
<td>211</td>
<td>19.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4231.631</td>
<td>213</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ANOVA—The $F$ test is not significant ($F = 1.602, p = .204$). This indicates that the groups’ January means are statistically equal. We fail to reject the null hypothesis, which states that the groups have equal means.

**Table 7**

Descriptive Data for Students’ September - January DRA2 Gain Scores

<table>
<thead>
<tr>
<th>DRA Gain Scores</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>SE</td>
<td>SE</td>
<td>SE</td>
</tr>
<tr>
<td>1.00</td>
<td>87</td>
<td>5.4368</td>
<td>2.67504</td>
<td>.28679</td>
<td>4.8667</td>
</tr>
<tr>
<td>2.00</td>
<td>86</td>
<td>4.7326</td>
<td>2.88780</td>
<td>.31140</td>
<td>4.1134</td>
</tr>
<tr>
<td>3.00</td>
<td>41</td>
<td>4.1707</td>
<td>2.48900</td>
<td>.38872</td>
<td>3.3851</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>4.9112</td>
<td>2.75895</td>
<td>.18860</td>
<td>4.5395</td>
</tr>
</tbody>
</table>

**H$_0$: Mean(Group1) = Mean(Group2) = Mean(Group3).**

**H$_A$: At least one group’s mean is different.**

**Table 8**

Levene Statistic Variances for Students’ September-January DRA2 Gain Scores

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>$df_{i}$</th>
<th>$df_{j}$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.806</td>
<td>2</td>
<td>211</td>
<td>.448</td>
</tr>
</tbody>
</table>

**Table 9**

ANOVA Results for Students’ September-January DRA2 Gain Scores

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>49.257</td>
<td>2</td>
<td>24.629</td>
<td>3.306</td>
<td>.039</td>
</tr>
<tr>
<td>Within groups</td>
<td>1572.056</td>
<td>211</td>
<td>7.451</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1621.313</td>
<td>213</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ANOVA—The $F$ test is significant ($F = 3.306, p = .039$). This indicates that at least one of the group’s gains means is statistically different. We reject the null hypothesis, which states that the groups have equal gain means.
students who completed half-day preschool also outperformed students who did not attend preschool, although not to a significant degree.

Both the LSD ($p = .015$) and Bonferroni ($p = .045$) multiple-comparison tests indicated that there is a significant difference between Groups 1 and 3. This means Groups 1 and 2 and Groups 2 and 3 have statistically equal gain means, but Groups 1 and 3 are statistically different.
Discussion

This study investigated the relationships between full-day, half-day, and no preschool on first-grade reading achievement. Using the DRA2 to assess reading ability, results indicated that students who participated in full-day preschool made significantly greater gains in reading during the first half of first grade than did students with no preschool. Students who participated in full-day preschool also outperformed students who completed half-day preschool, although not to a significant degree. Furthermore, students who completed half-day preschool outperformed students who did not attend preschool, although not to a significant degree. Interestingly, the significant difference between students who attended full-day preschool versus those children who did not attend preschool was not observed until January of first grade.

Results of the present study show support for publicly funded, full-day preschool education, as only this group of students significantly outperformed students with no preschool attendance. According to the findings of this investigation, half-day preschool attendance was not sufficient to help students achieve significantly greater reading gains than their peers who did not attend preschool. These findings support the voices of Barnett and Hustedt (2003) who argued in favor of providing universal preschool for all children.

Results of the study also support the emergent literacy theoretical perspective (Clay, 1966; Tracey & Morrow, 2006). As predicted by application of this theory, students who spent the greatest amount of time in environments specifically designed to facilitate growth in the areas of listening, speaking, reading, and writing outperformed students who spent less time in these environments. Moreover, the present study showed that this growth occurred in a stepwise pattern, with students who spent the greatest amount of time in preschool achieving the greatest gains, followed by students who spent a moderate amount of time in preschool, and then students who did not attend preschool.

In addition to supporting the value of state-funded, full-day preschool and emergent literacy theory, the present research adds data to the debate regarding students’ developmental literacy trajectories (Leppanen et al., 2004). As previously described, Leppanen et al. identified two literacy growth trajectories: cumulative trajectories in which differences between students increase during the year (also known as the Matthew Effects, see Stanovich, 1986) and compensatory trajectories in which differences between students decrease during the year. The findings from Leppanen et al. supported a compensatory trajectory that was in contrast to a widespread, popular belief supporting the
existence of Matthew Effects. The present study provides further data to support a cumulative trajectory and the presence of Matthew Effects, as the differences between students’ September DRA2’s were slight (though still following the same stepwise pattern described above) and then grew to statistical significance by January.

Despite research findings consistent with emergent literacy theory, a cumulative developmental trajectory, and Matthew Effects, several limitations of the study warrant caution. First, it is possible that differences between the groups of students were partially or fully associated with differences in the students’ home lives rather than differences associated with preschool attendance. Such an argument would suggest that parents who enrolled their children in the full-day, free public program (a first-come, first-serve opportunity) may be different in some significant way(s) from parents who did not enroll their children. For example, perhaps the parents who enrolled their children were inherently more savvy or assertive than parents who did not (or were unable to) enroll their children. It is also possible the children who attended the full-day program had parents who were working more than the children who stayed home, or had parents who were better educated. The present research did not investigate the effects of the children’s at-home literacy experiences or parents’ education, both of which have been found to be influential in literacy development (Yaden et al., 2000).

Another limitation of the present study was that the quality of the full-day and half-day programs was not evaluated or compared, leaving open the possibility that qualitative differences between the programs, rather than the amount of time spent in attendance, led to the superior gains of the full-day students. This line of reasoning is consistent with the work of Barnett and Hustedt (2003) who found that publicly funded programs tend to be of a higher educational quality than private programs.

Educational leaders in urban communities typically feel competing pressure for limited financial resources. The present project indicates that attendance in full-day preschool is related to significantly greater first-grade reading achievement than nonattendance, and greater achievement than half-day attendance. As such, the research supports the argument that full-day preschool is a wise investment for city school districts. Further reinforcing this position are the data that show that students who are ahead in the early grades tend to maintain and even increase their academic leads throughout their schooling (Shaywitz, 2004, Stanovich, 1986).

Educational leaders may need to convince community constituents of the benefits of full-day preschool and inform them of the benefits versus costs of implementing such programs. In addition to the presented studies, these leaders can contend that investing in full-day preschool may not only
increase first-grade achievement but, simultaneously, may reduce the need for special educational and remedial interventions at later grade levels. Similar to the argument for preventive health practices, investing in full-day preschool is likely to be a preventive educational practice.

The present article did not address the issues of instructional design or practices within the full-day and half-day preschool educational programs included in this study. Rather, the findings of this report should be viewed as an examination of time on task. For educators planning to implement full-day preschool programs, however, program design and content will be of utmost importance. Following the decision to move to full-day preschool education, leaders should follow best practices in literacy education to obtain maximum literacy achievement effects (see Gambrell, Morrow, & Pressley, 2007). Exemplary literacy practices detailed in Gambrell et al.’s text, Best Practices in Literacy Instruction, include promoting family involvement, building literacy-rich classroom environments, developing children’s oral language, phonemic awareness, phonics, word identification, vocabulary, comprehension, meta-linguistic, and fluency skills. Other areas highlighted within the field of exemplary literacy practices are reading motivation, storybook reading to children, story retelling, literacy centers, use of word families, and technology integration. Thus, urban education leaders can reasonably expect optimal literacy achievement for the children in their communities when full-day, publicly funded, preschool programs are combined with exemplary literacy instructional practices.

In conclusion, the present research supports the value of full-day, publicly funded, preschool education in first-grade reading achievement. Results indicated that students who participated in full-day preschool made significantly greater gains in reading during the first half of first grade than did students with no preschool. Students who participated in full-day preschool also outperformed students who completed half-day preschool, although not to a significant degree. Furthermore, students who completed half-day preschool outperformed students who did not attend preschool, although not to a significant degree. The present study also validated the worth of an emergent literacy theoretical perspective for predicting and explaining the research findings. Finally, the present project provides data supporting a cumulative, developmental literacy trajectory in which differences between children’s literacy achievement increase rather than decrease across time. Urban educational leaders can feel confident that combining full-day preschool programs with exemplary literacy instruction can lead to optimal achievement gains for the children in their communities.
References


**Joy E. Valenti** graduated from Kean University with a bachelor’s degree in elementary education. She completed a master’s degree in reading specialization and is in the process of completing a second master’s degree in administration and supervision. She has been a first-grade teacher in Hillside, New Jersey, for the past 7 years and participates in many before- and after-school programs.

**Diane H. Tracey** is associate professor of education at Kean University where she teaches graduate courses in the Reading Specialization Program. Her recent research focuses on differentiated literacy instruction and teacher read-alouds in the classroom. She is author of the text, *Lenses on Reading: An Introduction to Theories and Models* with Lesley M. Morrow, and editor of the *Journal of School Connections*, with Jennifer J. L. Chen.

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