A Snapshot of Quality in Abbott Kindergarten Classrooms

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Abstract
A total of 135 (12%) randomly selected kindergarten classrooms in low-income districts in this state were observed to develop a baseline profile of quality to inform policy and practice. Kindergarten classroom quality was measured using two instruments: Assessment of Practices in Early Elementary Classrooms (APEEC; Hemmeter, Maxwell, Ault & Schuster, 2001), and the Early Language and Literacy Classroom Observation Toolkit (ELLCO; Smith & Dickerson, 2002). Scores on both instruments revealed most kindergartens were operating at a minimal to mediocre level of quality. Teachers who held Preschool to Grade 3 teaching certifications scored higher on all measures and significantly higher (p < .002) on the literacy environment than those holding standard elementary K-5/K-8 licenses. In addition, prior experience teaching preschool seems to improve quality scores.

Introduction
In the 1998 school finance case of Abbott v. Burke, the Supreme Court of New Jersey directed the New Jersey legislature to enact legislation that would address two funding mandates. The Court’s first order was for the legislature to allocate adequate funds to ensure that the same amount of money was spent per pupil for regular education in these poor districts, now known as Abbott districts, as was available on average in New Jersey’s high performing districts. The Court’s second mandate was for the State to develop, adequately fund and implement “supplemental programs” that met the needs of the poor children of New Jersey. As part of this legislation, the 30 poorest districts were mandated to provide preschool classes for all 3- and 4-year old children (Abbott v. Burke 1998). These 30 school districts were given the responsibility for ensuring that all programs, regardless of setting, meet high quality standards established by the Court order (Abbott v. Burke, 2000). The goal of the Abbott preschool mandate was to
ensure that children would enter kindergarten with the skills and abilities to succeed in school. While the New Jersey Department of Education has invested considerable effort and funds in improving preschool classroom quality and has been assessing the progress of this initiative, little attention has been focused on the kindergarten programs that these children attend at the completion of preschool.

In an effort to assess the quality of Abbott Kindergartens, the New Jersey Department of Education – Office of Early Childhood Education (DOE-OECE) contracted with the Early Learning Improvement Consortium (ELIC) to expand its assessment of preschool classrooms to assess Abbott Kindergarten classrooms. The ELIC is a multiyear initiative begun in fall 2002 in which participating institutions of higher education assist the DOE-OECE and Abbott districts in identifying the particularized needs of preschool children and programs by collecting and analyzing data on children and classrooms. In the fall of 2006, faculty and staff from the universities completed structured classroom evaluations of approximately 12.41% of all Abbott kindergarten classrooms. The primary purpose of this data collection was to develop a baseline profile of the quality of kindergarten classrooms to inform policy and practice.

Given the growth and improvement of Abbott preschool classrooms (Frede, Jung, Barnett, Lamy & Figueras, 2007; Lamy, Frede, et al, 2005), this study sought to examine the kindergarten classrooms that children move into at the completion of preschool. This study was designed to answer the following questions: What is the overall quality of kindergarten classrooms in Abbott districts? What is the quality of the literacy environment in kindergartens? What is the quality of the teaching strategies used to support language and literacy development? What impact, if any, do the teacher’s prior teaching experiences have on kindergarten quality? What impact, if any, does the type of teacher certification have on quality? What recommendations can be made to improve quality in kindergarten? This report presents the methods and findings of the ELIC kindergarten study. Recommendations based on the findings are also presented.

**Perspectives**

Guiding this study was the premise that kindergarten should be a place for active learning and engagement. Kindergarten children are active learners and learn through their interactions with materials, adults and other children (Bredekamp & Copple, 1997; Gullo, 2006; Seefeldt & Wasik, 2002). Gallo (2006) notes that kindergarten children should be provided with opportunities for rich, in-depth, integrated studies or projects to enhance higher-order thinking, language use, problem solving skills, generalization of knowledge, transfer of learning, and deeper understanding of concepts.

Fusco (2006) notes that “Quality kindergarten programs flourish in the context of a full-day developmentally appropriate kindergarten, where children have choice and opportunity for exploration.” (p. 17). Bronson (2006) links children’s social and emotional competence to teachers’ inclusion of diversity in everyday interactions, materials, and activities. Strickland (2006) suggests the importance of maintaining a balance between explicit instruction and informal learning by keeping instruction active and consistent with how young children learn. Strickland (2006) further recommends that “Instruction should go beyond the acquisition of isolated skills to help learners strategically apply what they have learned” (p. 77).
In selecting the instruments to use to measure quality, adherence to the above noted best practices guided this study.

**Methods**

A total of 135 kindergarten classrooms, of the 1087 kindergarten classrooms in Abbott districts, were observed. This represents 12.41% of all Abbott kindergarten classrooms. These observations across Abbott districts, approximately 12% within each district, were completed between October and December of 2006. Self-contained special education kindergartens were excluded from this sample. Abbott districts provided NJ DOE-OECE with a list of all kindergarten teachers in their district. From these lists, classrooms were selected using a computerized random number generator. Lists of the classrooms to be observed within particular districts were then distributed to the ELIC universities of which districts were assigned the university and which classrooms within that district should be observed.

While the sample in most districts was too small to inform district specific practices, the sample represents 12.41% of all Abbott kindergarten classrooms statewide and was reasonably large enough to make generalizations on a statewide basis. As classrooms were randomly selected and stratified across districts, there was a high degree of confidence that the information presented was indicative of the quality of the classroom experiences for kindergarten children in low-income districts.

Staff from NJ DOE-OECE and faculty from ELIC reviewed a variety of classroom observational assessment instruments and selected the instruments to provide an assessment of overall classroom quality as well as a more detailed assessment of literacy practices and environment. Protocol for inter-rater reliability was also developed.

Kindergarten classroom quality was measured using two instruments: Assessment of Practices in Early Elementary Classrooms (APEEC; Hemmeter, Maxwell, Ault & Schuster, 2001), and the Early Language and Literacy Classroom Observation Toolkit (ELLCO; Smith & Dickerson, 2002). The APEEC was selected to provide a comprehensive view of kindergarten classroom quality. The APEEC is grounded in developmentally appropriate practices in K-3 settings. It was designed to measure the quality of practices, events and arrangements that typically occur in classroom settings. The ELLCO was selected to provide a more discriminating look at the supports and strategies to foster language and literacy development in P-3 classrooms.

In addition, item #4 from the School Age Classroom Environment Rating Scale (SACERS; Harms, Jacobs, White, 1995) was added to examine the quality of room arrangement and items #14, #15, and #20 from the Support for Early Literacy Assessment (SELA; Smith, Dickerson & Weisenfeld, 2001) were added to specifically examine the supports for parent involvement in literacy.

Two days of training was held jointly for all data collectors. One full day of training was provided by the publishers of the ELLCO Tool Kit. One full day of training was provided by faculty of WPU on the remaining instruments to ensure uniform interpretation of the instruments. All data collectors established reliability in the instruments following the protocol and
established reliability with lead faculty who first established reliability with each other. All observations were conducted by specially trained faculty, staff and individuals who were trained to be statistically reliable in the instruments administered. Data collector reliability for the 12 data collectors averaged 94% for the ELLCO Literacy Checklist (range = 90% to 98%); 99% for the ELLCO Classroom Observation (range of 93% to 100%); 97% for the ELLCO Literacy Activity Checklist (range = 89% to 100%); 100% for SELA; and 93% for the APEEC including SACERS item (range = 84% to 100%). Each observation lasted 2.5 to 3 hours and was followed by teacher interview. All data have been reviewed and analyzed by faculty at William Paterson University.

Results

APEEC
The APEEC is used as an observation & rating instrument for early elementary classrooms in kindergarten to grade 3. For the purposes of this study, the APEEC was completed on a total of 135 randomly selected kindergarten classrooms across Abbott districts. The total APEEC score represents an average of the scores on the 16 items. The APEEC quantifies classroom quality on a 7-point Likert scale indicating a range of quality from inadequate (1) to excellent (7). A rating of 1 indicates inadequate quality. A rating of 3 indicates minimal quality. A rating of 5 indicates good quality. A rating of 7 indicates excellent quality. Items are grouped together in three subscales: Physical Environment, Instructional Context, and Social Context.

In fall 2006, the average APEEC score across all sample kindergarten classrooms was 3.96. This score indicates that on a statewide basis, the average overall quality of kindergarten classrooms in Abbott districts was below good quality. While some good practices were evident, there were also several areas that are in need improvement. Analysis of the scores revealed that only 12% of the classrooms scored in the range of good quality (5.00-5.99), 33% of the classrooms scored mediocre quality (4.00-4.99), 44% of the classrooms scored in the range of minimal quality (3.00-3.99), and 1% of the rooms scored below minimal quality. Figure 1 presents the average total scores and the number of classrooms scoring in a particular range. Figure 2 presents the average total scores and the percent of classrooms scoring in a particular range.
Scores for individual classrooms ranged from a low of 2.07 to a high of 5.80. The majority of classrooms scored in the 3.00 – 3.99 range. This indicates that most classrooms were operating at a minimal level of quality. Of particular concern is that 14 of the classrooms were below minimal quality. Lowest scores were revealed in the area of instructional context, although there was a broad range within this subscale.

**APEEC Subscales**

Table 1 presents the subscale and item scores on the APEEC. A discussion of each subscale, practices that are indicators of quality, and observed practices follows. APEEC scores show a range of quality across the items with one individual item (health and safety) scoring less than minimal quality (3), and two individual items (classroom accessibility; monitoring child progress) indicating good quality (5) or higher. While all subscales need to improve in quality,
those areas with scores below minimal quality are of immediate concern. Highlights of individual item scores that impacted the overall score are given.

Table 1: APEEC Subscale and Item Scores

<table>
<thead>
<tr>
<th>Physical Environment</th>
<th>Average Scores</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Room Arrangement</td>
<td>3.50</td>
<td>2.00-7.00</td>
<td>1.233</td>
</tr>
<tr>
<td>2. Display of Child Products</td>
<td>4.07</td>
<td>1.00-7.00</td>
<td>1.207</td>
</tr>
<tr>
<td>3. Classroom Accessibility</td>
<td>5.95</td>
<td>2.00-7.00</td>
<td>1.594</td>
</tr>
<tr>
<td>4. Health &amp; Classroom Safety</td>
<td>2.15</td>
<td>1.00-6.00</td>
<td>1.156</td>
</tr>
<tr>
<td>Instructional Context</td>
<td>4.11</td>
<td>1.67-6.50</td>
<td>1.146</td>
</tr>
<tr>
<td>5. Use of Materials</td>
<td>4.08</td>
<td>1.00-7.00</td>
<td>1.675</td>
</tr>
<tr>
<td>6. Use of Computers</td>
<td>4.09</td>
<td>1.00-7.00</td>
<td>1.991</td>
</tr>
<tr>
<td>7. Monitoring Child Progress</td>
<td>5.55</td>
<td>1.00-7.00</td>
<td>1.423</td>
</tr>
<tr>
<td>8. Teacher-Child Language</td>
<td>3.76</td>
<td>1.00-7.00</td>
<td>1.986</td>
</tr>
<tr>
<td>9. Instructional Methods</td>
<td>3.53</td>
<td>1.00-7.00</td>
<td>1.876</td>
</tr>
<tr>
<td>10. Integration and Breadth of Subjects</td>
<td>3.64</td>
<td>1.00-7.00</td>
<td>1.991</td>
</tr>
<tr>
<td>Social Context</td>
<td>3.81</td>
<td>2.00-5.80</td>
<td>.898</td>
</tr>
<tr>
<td>11. Children’s Role in Decision-Making</td>
<td>3.30</td>
<td>1.00-7.00</td>
<td>1.599</td>
</tr>
<tr>
<td>12. Participation of Children w/ Disabilities in Classroom Activities</td>
<td>4.15</td>
<td>1.00-7.00</td>
<td>2.138</td>
</tr>
<tr>
<td>13. Social Skills</td>
<td>4.76</td>
<td>1.00-7.00</td>
<td>2.012</td>
</tr>
<tr>
<td>14. Diversity</td>
<td>3.39</td>
<td>1.00-7.00</td>
<td>1.172</td>
</tr>
<tr>
<td>15. Appropriate Transitions</td>
<td>4.19</td>
<td>2.00-7.00</td>
<td>1.747</td>
</tr>
<tr>
<td>16. Family Involvement</td>
<td>3.33</td>
<td>2.00-7.00</td>
<td>1.337</td>
</tr>
<tr>
<td><strong>Total APEEC Score</strong></td>
<td><strong>3.96</strong></td>
<td><strong>2.07-5.80</strong></td>
<td><strong>.771</strong></td>
</tr>
</tbody>
</table>

*What is included in the Physical Environment subscale?*

This subscale addresses the areas of room arrangement, display of child products, classroom accessibility, and health and classroom safety. **Best practices include the following indicators:** Children spend most of the day in small group areas; there is a relaxation area with soft furnishings, and a defined space set aside for a child to work alone; duplicate materials are placed in different locations; some child products are displayed at eye level; child products include original work; most children have at least one item displayed; almost all furniture used by children is sized appropriately; most materials can be independently accessed by children; the room is not crowded; room arrangement and furniture do not limit inclusion; there is a working two-way communication system between the classroom and other adults in the school; and teachers provide children the opportunity to wash hands before eating meals and snacks.

*Physical Environment Average Score: 3.92*

The scores for physical environment ranged from 2.00 to 6.75. Lower scoring rooms on average lacked the following:

♦ In 74%(101) of the classrooms, children spent more than 50% of the entire day in whole group activities.
♦ 60%(82) of the classrooms lacked a relaxation area with soft furnishings.
♦ Displays in more than half the classrooms only included product oriented artwork
♦ 51%(69) of the classrooms had safety issues due to hazardous materials within reach of the children. They also lacked basic first aid equipment such as band aids and disposable gloves.
♦ In 62% (83) of the classrooms, the teacher did not provide an opportunity for the children to wash their hands before eating.

Of particular concern is that nearly three-quarters of the classrooms relied on whole group instruction and activity for the majority of the day. “No one teaching method or approach is likely to be effective for all children, at all times.” (NAEYC/IRA, 1998). Teachers need to vary the types of groups to provide times for whole group, small group and individual instruction throughout the day and to insure that teacher- and child- initiated activities are balanced.

What is included in the Instructional Context subscale?
This subscale addresses the areas of use of materials, use of computers, monitoring child progress, instructional methods, integration and breadth of subjects. Best practices include the following indicators: Many different hands-on materials in at least two subject areas are in the classroom; all children use hands-on materials for a majority of the day; hands-on and other relevant materials are used by most children in all subject areas; the classroom has at least two computers that children use; children use computers for at least three purposes; data on individual child progress are used to make instructional decisions; data are collected primarily within the context of instruction; the children are prompted by the teacher to elaborate on their initial statements; children are asked to explain their answers; shared learning is used; at least two teaching methods are used within at least two subject areas; activities or projects are used daily that require children to use skills from multiple-subject areas concurrently.

Instructional Context Average Score: 4.11
The scores for Instructional Context ranged from 1.67 to 6.50. Lower scoring rooms on average lacked the following:
♦ Hands on materials for one or two subject areas were not used in 56% (75) of the classrooms.
♦ In 50% (68) of the classrooms, children did not have an opportunity to speak with their peers about classroom activities.
♦ 26% (35 classrooms) of the teachers only asked low level questions.
♦ 30% (41 classrooms) of the teachers did not ask the children to elaborate on their answers.
♦ 52% (70 classrooms) of the teachers did not engage in some informal conversations with the children.
♦ Only whole group instruction was used in 22% (29) of the classrooms.
♦ In half of the classrooms (50% or 68 classrooms), most activities or materials were not adapted of individual children as needed.
♦ 40% (53) of the classrooms had activities or projects that did not require children to use skills from multiple-subject areas concurrently.
♦ 62% (84) of the classrooms did not offer gross motor opportunities to children daily.

As noted above, findings revealed many inappropriate practices and strategies occurring in kindergartens. Kindergarten children are active learners and learn through their interactions with materials, adults and other children (Bredekamp & Copple, 1997; Gullo, 2006; Seefeldt &
Wasik, 2002). Yet, in more than 50% of the classrooms, children did not have opportunities to use hands-on materials, have discussions with their peers, or informal conversations with teachers. Gallo (2006) notes that kindergarten children should be provided with opportunities for rich, in-depth, integrated studies or projects to enhance higher-order thinking, language use, problem solving skills, generalization of knowledge, transfer of learning, and deeper understanding of concepts.

**What is included in the Social Context subscale?**
This subscale addresses children’s role in decision-making, participation of children with disabilities in classroom activities, social skills, diversity, appropriate transitions, and family involvement. *Best practices include the following indicators:* children make choices many times a day; many IEP objectives for children with disabilities are addressed through regular classroom activities; adults encourage children to negotiate their own solutions to problems; adults primarily use redirection or reinforcement of appropriate behavior to minimize inappropriate behavior; diversity in the classroom is seen across multiple areas and is integrated throughout daily activities; transitions are orderly and advance notice is provided; families are given a variety of options for involvement in classroom-related activities; and a communication system is present so that families and teachers can communicate easily and in a timely manner.

**Social Context Average Score: 3.81**
The scores for Social Context ranged from 2.00 to 5.80. Lower scoring rooms on average lacked the following:
- In 58% (78) of the classrooms observed, children were not allowed to make choices at least once a day.
- Children never helped make decisions that affect the entire class in 61% (82) of the classrooms.
- A variety of materials and information on diversity was lacking in 78% (106) of the classrooms. Diversity information was not provided thought ongoing areas of study in 63% (86) of the classrooms.
- Teachers never provided advance notice about upcoming transitions in 49% (66) of the classrooms.
- A variety of options for family involvement was lacking in 84% (113) of the classrooms.

Most of the kindergarten classrooms observed had limited opportunities for children to make choices or exercise decision-making (even as simple as selecting a name for a class pet). Fusco (2006) notes that “Quality kindergarten programs flourish in the context of a full-day developmentally appropriate kindergarten, where children have choice and opportunity for exploration.” (p. 17). Bronson (2006) links children’s social and emotional competence to teachers’ inclusion of diversity in everyday interactions, materials, and activities. As teachers seemed highly focused on “teaching” and whole group instruction, there was little attention to issues of diversity, and limited if any materials to reflect the diversity of the children in the classroom. The benefits of family involvement are extensively supported in research. Through teacher interview, teachers rarely identified any opportunities for family involvement or strategies they used to encourage involvement in their child’s education.
SACERS & SELA
Assessment based on SACERS item #4 was completed to further validate and inform about the opportunities for active learning, small group instruction and opportunities for child choice. Item #4 focuses on room arrangement and indicates the extent of centers being used in kindergartens. **Best practices include the following indicators:** Three or more centers are defined and conveniently equipped, and centers are selected to provide a variety of learning experiences.

Selected SELA items were included to provide more discrete information on strategies to support family involvement in their child’s literacy development. SELA items #14 and #15 focus on the extent of parent communication and supports to involve them in early literacy. **Best practices include the following indicators:** Regular communication to suggest home-based literacy activities, availability of lending library, sharing information on skills and individually tailored recommendations, offering a variety of parent education activities and information about literacy services in the community. SELA item #20 focuses on promoting the maintenance and development of children’s native language in classrooms with bilingual and non-English speaking children. Best practices include using several strategies such as print, use of native language by staff, books in the native language available, celebrations of cultural and linguistic backgrounds and offering parents suggestions about ways to encourage native language development at home.

Unlike the APEEC and SACERS, SELA uses a 5-point scale. The scores for SACERS item #4 and SELA items #14, #15, and #20 are presented in below Table 2.

Table 2: SACERS & SELA results

<table>
<thead>
<tr>
<th>Item</th>
<th>Average Scores</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACERS Item #4</td>
<td>4.03</td>
<td>2.00-7.00</td>
<td>1.973</td>
</tr>
<tr>
<td>SELA #14</td>
<td>3.59</td>
<td>1.00-5.00</td>
<td>.866</td>
</tr>
<tr>
<td>SELA #15</td>
<td>2.90</td>
<td>1.00-5.00</td>
<td>1.239</td>
</tr>
<tr>
<td>SELA #20</td>
<td>2.39</td>
<td>1.00-5.00</td>
<td>1.354</td>
</tr>
</tbody>
</table>

Lower scoring rooms on these items on average lacked the following:

♦ 43 classrooms (31.9%) had no other play spaces that could be used by children.
♦ 31 classrooms (23%) did not have three or more interest centers defined and conveniently equipped.
♦ 41 classrooms (30.4%) did not separate quiet and noisy centers.
♦ 4 classrooms (3%) did not define any spaces. 5 classrooms (3.7%) had rooms that were inconveniently arranged.
♦ 6 classrooms (4.4%) had rooms where the supervision was difficult.
♦ 13 classrooms (9.6%) scored less than minimal meaning that staff did not use informal communications to parents about home-based literacy activities, or discuss individual children’s literacy-related interests and skills at a scheduled parent-child conference, or other times.
♦ 50 classrooms (37%) scored less than minimal indicating that the school did not offer literacy activities for parents such as workshops and lending libraries or if offered, the teacher was unaware of their existence.

♦ 58 classrooms (43%) scored less than minimal indicating that little to no efforts are made to promote children’s native languages.

**ELLCO**
The ELLCO Toolkit is designed to gather data in prekindergarten to third-grade classrooms about the classroom materials and environment, teaching practices, and learning activities to support language and literacy development. It includes a *Literacy Environment Checklist*, *Classroom Observation and Teacher Interview*, and the *Literacy Activities Rating Scale*. Unlike the APEEC, there is no total score. Each portion of the instrumentation is scored independently and provides both qualitative and quantitative data to provide a differential snapshot of the varying components necessary for best literacy practices. The results for each section of the ELLCO Toolkit are presented below.

*Literacy Environment Checklist*
Average Total Checklist Score (Maximum score possible = 41): 26.36
Subscales:
Average Book Area Score (Maximum score possible = 3): 2.05
Average Book Selection Score (Maximum score possible = 8): 7.65
Average Book Use Score (Maximum score possible = 9): 3.65
Average Writing Materials Score (Maximum score possible = 8): 6.31
Average Writing Around the Room Score (Maximum score = 13): 6.69

This checklist includes 24 items and assesses both books and writing in the classroom. The items are grouped into 5 subscales as identified above. Specifically, items examine the book area, selection of books available, use of books to support learning in different domains, writing materials, and writing around the room. *Best practices include the following:* special cozy areas set aside for reading with books displayed neatly and well-organized; ample books should be available including a range of reading levels, topics, and genres, with some books related to current areas of study; Books should be located throughout the room and incorporated into varied learning centers; Writing tools, paper and materials to encourage writing should be varied and accessible to children in special writing areas as well as in varied locations in the classroom.

Observations revealed that 78 (58%) classrooms had areas set aside for book reading. In addition, 119 (88%) classrooms had book areas that were orderly and inviting and 80 (59%) classrooms had book areas that included soft furnishings.

All classrooms had books with a range of levels of difficulty. No rooms had fewer than 15 books accessible and all rooms had more than 26 books accessible to children. 127 rooms had 6 or more books which conveyed factual information and 96 rooms had three or more books related to the current theme. 102 classrooms had listening centers. However only 34 (25%) classrooms had more than 3 books available in the science area, only 26 (19%) classrooms incorporated more than 3 books into dramatic play centers and only 27 (20%) rooms had more than 3 books in a block area.
An alphabet posted at children’s level or readily used by children were found in 125 classrooms. In 68 classrooms, word cards with names or familiar words were present. In 96 classrooms, templates or tools to help children form letters were included. Observations also revealed that 92 classrooms had 3 or more kinds of paper available for writing and 122 classrooms had 3 or more varieties of writing tools (pens, pencils, markers, crayons, colored pencils, magnetic letters, chalkboard, whiteboard, rubber stamps, etc). Additionally, 82 rooms had a distinct area set up for writing. Of particular concern is that 3 rooms had no paper for writing.

Evidence of writing in the classrooms was limited. Only 35 (26%) classrooms had at least 3 types of teacher dictation on display. In 60 (44%) classrooms, at least 3 varieties of children’s writing were on display. Only 25 (18%) classrooms included writing tools in the dramatic play or block area and only 24 (17%) classrooms included props to prompt children’s writing in these areas. However, there were some additional efforts evident to support writing. In 116 classrooms more than 6 charts, big books or other evidence of full-group literacy activities were found. Observers also found that 73 rooms had alphabet puzzles and 80 rooms had other puzzles with words available for children’s use.

While all classrooms had sufficient books, many rooms need soft furnishings to make these areas inviting. Observations also revealed that there were some basic efforts to support writing including alphabets, stencils, charts, and puzzles. Most rooms however need to add learning centers to their classrooms and incorporate books and writing materials into these centers. Analysis of the results of the Literacy Environment Checklist indicates that the environment seems to support direct instruction with little attention to a balanced approach. Strickland (2006) suggests the importance of maintaining a balance between explicit instruction and informal learning by keeping instruction active and consistent with how young children learn.

Classroom Observation and Teacher Interview
Total Average Score: 3.48
Subscale 1- General Classroom Environment: 3.51
Subscale 2- Language, Literacy & Curriculum: 3.45

This portion of the instrument includes 14 items scored through observation and interview on a 5-point Likert scale with a score of 1 as deficient 3 as Basic and 5 as Exemplary. The 14 items are grouped into two subscales. The first subscale, General Classroom Environment, examines organization, contents, technology, child choice and initiative, classroom management and climate. The second subscale, Language, Literacy and Curriculum, includes 8 items and focuses on an intentional approach to supporting language and literacy through materials, activities, instruction, strategies and teaching practices. Figure 3 presents the average overall total scores and Figure 4 presents the average subscale scores.
Figure 3: Average Total Scores ELLCO Classroom Observation and Teacher Interview

![Bar chart showing the percentage of classrooms in different score ranges.]

Figure 4: Average ELLCO Subscale Scores for Classroom Observation & Teacher Interview.

![Bar chart showing the percentage of classrooms in different score ranges for General Classroom Environment and Language, Literacy, Curriculum subscales.]
To identify areas of strengths and areas in need of improvement, individual item scores are presented below in Table 3.

Table 3: ELLCO Classroom Observation Individual Items

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Average Scores</th>
<th>Range</th>
<th>Standard Deviation</th>
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<tr>
<td>General Classroom Environment</td>
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<td>1.67-4.83</td>
<td>.653</td>
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<tr>
<td>1. Organization of the Classroom</td>
<td>4.08</td>
<td>1.00-5.00</td>
<td>.970</td>
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<tr>
<td>2. Contents of the Classroom</td>
<td>3.15</td>
<td>1.00-5.00</td>
<td>.894</td>
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<td>3. Presence and Use of Technology</td>
<td>3.12</td>
<td>1.00-5.00</td>
<td>1.344</td>
</tr>
<tr>
<td>4. Opportunities for Child Choice</td>
<td>2.50</td>
<td>1.00-5.00</td>
<td>1.190</td>
</tr>
<tr>
<td>and Initiative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Classroom Management Strategies</td>
<td>4.10</td>
<td>2.00-5.00</td>
<td>.961</td>
</tr>
<tr>
<td>6. Classroom Climate</td>
<td>4.11</td>
<td>1.00-5.00</td>
<td>1.056</td>
</tr>
<tr>
<td>Language, Literacy, and Curriculum</td>
<td>3.45</td>
<td>2.00-4.75</td>
<td>.602</td>
</tr>
<tr>
<td>7. Oral Language Facilitation</td>
<td>3.63</td>
<td>1.00-5.00</td>
<td>.920</td>
</tr>
<tr>
<td>8. Presence of Books</td>
<td>3.96</td>
<td>2.00-5.00</td>
<td>.786</td>
</tr>
<tr>
<td>9. Approaches to Book Reading</td>
<td>3.31</td>
<td>1.00-5.00</td>
<td>1.181</td>
</tr>
<tr>
<td>10. Approaches to Children’s Writing</td>
<td>3.76</td>
<td>2.00-5.00</td>
<td>.948</td>
</tr>
<tr>
<td>11. Approaches to Curriculum Integration</td>
<td>3.23</td>
<td>1.00-5.00</td>
<td>1.393</td>
</tr>
<tr>
<td>12. Recognizing Diversity in the Classroom</td>
<td>2.64</td>
<td>1.00-5.00</td>
<td>1.026</td>
</tr>
<tr>
<td>13. Facilitating Home Support for Literacy</td>
<td>3.29</td>
<td>1.00-5.00</td>
<td>.888</td>
</tr>
<tr>
<td>14. Approaches to Assessment</td>
<td>3.77</td>
<td>1.00-5.00</td>
<td>.872</td>
</tr>
<tr>
<td>Total Classroom Observation</td>
<td>3.48</td>
<td>1.93-4.71</td>
<td>.575</td>
</tr>
</tbody>
</table>

As noted above, most classrooms scored in the Basic level of quality. Highest scores were in classroom climate indicating evidence of teacher’s demonstrating respect for children and in classroom management indicating a consistency in rules and in children’s following established routines. Lowest scores confirm findings of the APEEC indicating limited opportunities for child choice and inclusion of attention to issues of diversity. Analysis of this section of the ELLCO indicates that basic strategies to support literacy were generally evident in most rooms, however there was little evidence of scaffolded instruction or differentiation based on needs. Teachers often seemed to provide primarily direct whole group instruction with follow-up workbook activities. The focus appears to be on the acquisition of isolated skills. Strickland (2006) recommends that “Instruction should go beyond the acquisition of isolated skills to help learners strategically apply what they have learned” (p. 77).
Common responses to the teaching interview questions revealed the following:

Types of Assessment: “That’s all we do in Kindergarten.” More than 75% of all the K teachers stated that they are required to use NJELAS, curriculum unit assessment for each unit taught (such as Everyday Math), Dibbles, and Terra Nova testing. However, only 25% of all the teachers use the information from these assessments to adapt lessons for the children.

Communication with Parents: When asked how often they communicate with the children’s parents, most teachers responded “daily, as they drop the children off in the morning or when they pick them up in the afternoon.” However, when further asked how they communicate about the child’s progress most teachers responded “through the report cards and at conference time”.

*Literacy Activities Rating Scale*

Average Total Score (Maximum score possible =13): 8.99
Subscale Book Reading Average Score (Maximum score possible = 8): 5.21
Subscale Writing Average Score (Maximum score possible = 5): 3.79

This portion of the ELLCO Toolkit is concerned with the actual observed frequency of occurrences of teaching strategies and practices specifically surrounding book reading and efforts to encourage writing. All observations lasted a minimum of 2.5 hours and included the time allocated for the literacy/language arts block. Individual items are scored either “yes” or “no” or ask for ranges of minutes or number of occurrences.

The maximum score for this scale is 13 with the book reading section maximum total of 8 and the writing maximum total score of 5. Best practices to support reading indicate that books are read to children on a daily basis, that adults also read to children individually or in small groups, and that time is also set aside for children to look at books alone or with a friend(s). Best practices to support writing development indicate that teachers model writing and help a child to write and that children attempt to write letters or words in activities and in their play.

Figure 5 presents the total average scores for this subscale by the percent of classrooms who scored within each range. Figures 6 and 7 present the total book reading subscale scores and total writing subscale scores by percent of classrooms.
Figure 5: Total Scores ELLCO Literacy Activities Rating Scale

Figure 6: Total Scores Book Reading Subscale by percentage of classrooms
To identify areas of strengths and areas in need of improvement, individual item scores are presented below in Table 4 indicating the number of classrooms who received each score.

Table 4: ELLCO Literacy Activity Rating Scale Scores

<table>
<thead>
<tr>
<th>Literacy Activity Rating Scale</th>
<th>Score of 0</th>
<th>Score of 1</th>
<th>Score of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Book Reading</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Full group book-reading</td>
<td>16 (0 times)</td>
<td>71 (1 time)</td>
<td>48 (More)</td>
</tr>
<tr>
<td>2. Total minutes full group reading</td>
<td>17 (less than 5)</td>
<td>30 (5-10 minutes)</td>
<td>88 (More)</td>
</tr>
<tr>
<td>3. Total # of books read</td>
<td>16 (0)</td>
<td>66 (1 book)</td>
<td>53 (More)</td>
</tr>
<tr>
<td>4. Adult one-on-one or small group</td>
<td>78 (No)</td>
<td>57 (Yes)</td>
<td>N/A</td>
</tr>
<tr>
<td>5. Time for child to read alone or small group</td>
<td>34 (No)</td>
<td>101 (Yes)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Writing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Writing in their play</td>
<td>108 (No)</td>
<td>27 (Yes)</td>
<td>N/A</td>
</tr>
<tr>
<td>7. Child attempts to write</td>
<td>5 (No)</td>
<td>130 (Yes)</td>
<td>N/A</td>
</tr>
<tr>
<td>8. Adult helps child write</td>
<td>12 (0 times)</td>
<td>22 (1-2 times)</td>
<td>101 (More)</td>
</tr>
<tr>
<td>9. Adult models writing</td>
<td>5 (No)</td>
<td>130 (Yes)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Of particular note is that 17 classrooms spent less that 5 minutes on full group book reading (item 2); in 78 classrooms, adults did not engage in either individual or small-group book reading (item 4); in 34 rooms, time was not set aside for children to look at books alone or with a friend (item 5); writing: in 108 rooms writing was not included in children’s play. In other words, children were not given the opportunity to explore the various functions and features of writing through their child-initiated activities, primarily because few rooms had times built into their schedules for choice, and materials to support writing were not located in centers. In 5 rooms, children were not observed attempting to write at all (item 7). While in most classrooms children
were observed writing, in 60 classrooms the children’s writing was practicing letter/work or number writing; in 18 classrooms the children did journal writing where they were given the topic to write about; in 12 classrooms the children did journal writing where they chose the topic. In 5 rooms, adults were not observed modeling writing (item 9). While in many rooms teachers did model writing at least once, the modeling that was observed occurred almost exclusively during whole group morning messages.

**Teacher Effects**

Teachers were also interviewed to gather demographic information including types of teaching credentials held, prior teaching experiences, educational background, and languages spoken. This allowed us to gain a sense of who kindergarten teachers are in Abbott districts. The average kindergarten teacher is female (98.5%), has an approximately 6.5 years of experience teaching kindergarten, has a K-5 or K-8 teaching certificate and speaks English.

In addition, analysis revealed the following facts regarding K teacher background:

- 68% are tenured teachers with 47% having more than 6 years teaching K
- 33% taught Pre-k for at least 1 year & 60% taught in another grade
- 25% received their certification via alternate route
- 24% hold a Master’s degree & 25% are currently enrolled in advanced coursework leading to additional certification (e.g. Supervisor, ESL, Special Education, Reading Specialist) and/or a master’s degree program
- 12% hold a P-3 or N-K License
- 29% speak Spanish or another language fluently

Data were also analyzed to investigate more closely the relationship, if any, between teacher background and the quality of the classroom as revealed by the various instruments used. Table 5 presents the types of teacher certification and their scores on the varying instruments.

In examining the relationship between types of teacher certification and the quality of the classroom, teachers who held a Preschool to Grade 3 (P-3) license had higher scoring classrooms on all measures than the classrooms of teachers who held a standard elementary (K-5/K-8) certificate. In addition, the results of the assessment of the literacy environment indicated a significant difference (p<.002) of the means of this measure. While some teachers held an older Nursery license (N-K) in addition to a K-5/K-8 license, there was no significant difference in scores for these teachers.

| Table 5: Teacher Certification and Classroom Quality |
|---------------------------------|-------------|-------------|-------------|-------------|
|                                 | APEEC       | ELLCO Literacy Environment | ELLCO Classroom Observation | ELLCO Literacy Activities |
| Teachers w/ P-3 certification  | 4.21        | 29.32       | 3.61        | 9.68        |
| Teachers without P-3 certification | 3.90     | 25.68       | 3.45        | 8.84        |
| Mean Difference                 | .31         | 3.68*       | 0.16        | 0.84        |

*p<.002
In investigating the relationship between the years and types of prior teaching experience, as expected, teachers who had more than 1 year of kindergarten teaching experience scored slightly lower than new teachers on most subscales. The only area of significance however was in book area subscale scores. Results may imply that as teachers return for their second or more year of teaching, they may conform to district expectations and may move more away from developmentally appropriate experiences than those new to the field. They acquire more books and become more skilled in arranging an inviting and functioning book area in the classroom. Teachers who had prior experience teaching in other grades scored slightly lower on totals on both instruments and in most subscales. However, teachers who had prior preschool teaching experience and held the P-3 license scored higher than their peers without the preschool experience. Table 6 presents the teachers years of experience with their instrument scores.

Table 6: Teacher Experience and Classroom Quality

<table>
<thead>
<tr>
<th></th>
<th>APEEC</th>
<th>ELLCO Book Area</th>
<th>ELLCO Literacy Environment</th>
<th>ELLCO Classroom Observation</th>
<th>ELLCO Literacy Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers w/ more than 1 year kindergarten experience</td>
<td>3.94</td>
<td>1.98</td>
<td>26.27</td>
<td>3.46</td>
<td>8.96</td>
</tr>
<tr>
<td>Mean Difference</td>
<td>.15</td>
<td>0.55*</td>
<td>.67</td>
<td>0.11</td>
<td>0.28</td>
</tr>
</tbody>
</table>

* p<.03

Summary & Recommendations

Considerable resources and attention have been focused on this state’s preschool programs. In 1998, the state Supreme Court mandated high quality preschool for all 3- and 4-year olds in the neediest 30 districts. The goal of the preschool mandate was to ensure that children would enter kindergarten with the skills and abilities to succeed in school. While the State Department of Education has invested considerable effort and funds in improving preschool classroom quality, little attention has been focused on the kindergarten programs that these children attend at the completion of preschool. As preschool programs become more universal, attention needs to also focus on kindergarten practices to ensure that kindergartens remain developmentally appropriate educational experiences for children and not a water-downed version of first grade.

The APEEC was used to measure overall classroom quality in Abbott kindergarten classrooms. The average score for 135 randomly selected kindergarten classrooms was 3.96 with 10% of the classrooms scoring below minimal quality (below 3.00) and 12% of the classrooms scoring good quality (5.00-5.99). This indicates that most classrooms have minimal to mediocre quality. Strengths based on this instrument included the accessibility of classrooms with ample space in many classrooms and facilities to accommodate any special needs of children. In addition, high scores were also noted in monitoring child progress. Assessment seemed to be consistently administered, though not all teachers used data to make instructional decisions. Teachers also were adept at managing behavior and establishing classroom rules.
Health and safety concerns were present in more than 50% of the classrooms. In nearly three-quarters of the classrooms observed, whole group instruction was used for the more than 50% of the day including nearly one-quarter of the classrooms relying almost exclusively on whole group instruction. Children in many classrooms were given little or no opportunity for choice or decision making. Projects or units that involve the integration of skills and subjects were not used by many teachers. In addition, parent involvement strategies were limited.

SACERS and SELA findings support the APEEC scores. SACERS results indicated that while most rooms have adequate space, space was not organized into learning centers in many rooms. SELA results indicated additional attention needs to be placed on supporting parent involvement in their child’s literacy development as well as in supporting native languages for children whose primary language is not English.

The ELLCO Toolkit was used as a more discriminating measure of the quality of literacy materials, strategies and opportunities in Abbott kindergarten classrooms. Strengths based on the analysis of these instruments included that all classrooms have ample books and most rooms have organized and inviting book areas. Nearly all teachers read to children each day, and most rooms had listening centers, alphabets posted, and writing materials. In line with APEEC, scores were also high in classroom management, classroom climate and classroom organization.

ELLCO classroom observation results revealed that most classrooms are operating at a Basic level of quality indicating that there are several areas in need of improvement to more effectively support children’s language and literacy development. Reading and writing was often completed as a whole-group activity. While teachers modeled writing and supported children’s efforts to write, there was little opportunity for children to incorporate writing into their play, few books or writing materials in centers, and little opportunity to look at books alone or with friends. Children also had limited opportunities to discuss their learning or activities with peers and limited opportunities for choice. Teachers need assistance in integrating instruction and differentiating strategies. Issues of diversity were rarely addressed or incorporated into everyday materials and activities.

This study was designed to provide an overall snapshot of the quality of kindergarten classrooms with a more discriminating investigation of the literacy environment and practices in these urban districts. We also examined the relationship of type of certification and prior teaching experiences of the kindergarten teacher to level of quality. After examining the results of all instruments collectively, the following implications are made to improve quality in kindergarten classrooms:

After examining the results of all instruments collectively, the following recommendations are made to improve quality in Abbott kindergarten classrooms:

1. The testing environment in many kindergartens seems to be focusing teaching on the acquisition of isolated skills. Teachers need to establish not only time for child choice in learning centers including blocks and dramatic play, but also in using their literacy block more effectively by instituting literacy centers, projects and/or thematic units of study.
2. Many teachers anecdotally shared that they have been instructed to put away blocks and dramatic play materials. Some classrooms do not have or no longer have access to these types of materials. Teachers may need professional development on strategies for intentional teaching through interacting and scaffolding children to support their learning in both choice time and literacy center time. Professional development in developing in-depth studies or projects to integrate learning across domains is also warranted.

3. Furthermore, although most of the districts are required to use the Early Learning Assessment System (ELAS) for planning, implementing and assessing children’s literacy development, many districts have not implemented thorough ongoing, embedded training for the kindergarten teachers. This is another area to be examined in greater depth.

4. Just as New Jersey requires Abbott preschool teachers to hold a P-3 certificate, perhaps new kindergarten teachers should be required to hold this certificate, as well. Many kindergarten teachers were trained as elementary school teachers rather than early childhood teachers. This may explain the emphasis on whole group activities, skill and drill writing and reading, and limited opportunities for choice. Scores clearly showed that teachers do not embed literacy into interest areas or utilize hands-on materials for a substantial portion of the day. They do not create active learning, center based classroom environments.

5. Results indicate that Health and Safety and Diversity are areas of extreme concern. Ongoing, staff development particular to these areas needs to be implemented, statewide, in Abbott kindergartens.

6. Abbott preschool classrooms have shown marked improvement which can be attributed to a variety of factors including but not limited to teacher training and implementation of a developmentally appropriate curriculum, coaching and training by master teachers, professional development and ongoing support for master teachers in coaching, training, and supporting teacher development, in-depth teacher training in NJ ELAS and effective literacy practices, and the P-3 certification requirement for preschool teachers. Kindergarten teachers need these similar supports to improve the quality of Abbott kindergartens. Special requests for center-based materials when needed may also be needed.

7. In hiring new kindergarten teachers, administrators need to look for teachers who have had specialized training in early childhood education and those with prior preschool teaching experience. As expected, kindergarten teachers with more than 1 year experience teaching kindergarten scored higher than those teachers with only 1 year of experience. However, those who taught other grades with the exception of preschool, scored lower than those who had not taught in other grades. This has practical implications for not moving teachers to kindergarten who have taught at higher grade levels.
References


