

Impact of Georgia's Pre-K Program on Kindergarten through Third Grade Teachers



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Executive Summary

The Georgia Prekindergarten Program (Pre-K), established in 1993, provides Georgia's four-year-old children with high quality preschool experiences in order to prepare them for kindergarten. Immediate gains resulting from Pre-K can be lost if teachers in later grades are not prepared to capitalize on the increasing capabilities of students. To sustain the positive effects of the Pre-K program, teachers in later grades need both to recognize that students are better prepared for school and to adapt their instructional practices to take advantage of their students' increasing capabilities. Research implies that teachers adopt practices in their classrooms relative to how their beliefs match assumptions inherent in new programs. Thus, this study investigates teacher awareness of the impact of Pre-K on students, teacher beliefs about instructional practices, current instructional practices, and the relationship between beliefs and practices.

The Council for School Performance launched this study to examine the implications of the Pre-K program for teachers of children in kindergarten through third grade. Through a survey of teachers in Georgia, the Council has found that teachers believe that the Pre-K program has positively affected students in elementary school, despite observations that students are, overall, changing for the worse. The majority of teachers believe in child-centered instructional practices, but this belief has not been adopted into their own instructional practices. Overall, teachers are as likely to use child-centered practices as they are to use teacher-directed activities. A summary of these findings follows:

Impact of Pre-K on Students in Kindergarten through Third Grade

- The majority of teachers feel that students completing the Pre-K program are better prepared or much better prepared for socialization skills development, reading skills development, math skills development, and appropriate classroom behavior in elementary school than students who have not attended Pre-K.
- Teachers rate the impact of the Pre-K program higher in all areas than the impact of HeadStart and at-home experiences, and slightly higher than private preschool experiences, although this latter difference is not statistically significant.
- Despite these positive effects, kindergarten through third grade teachers believe that their students overall are changing for the worse. The majority of the teachers feel that their students are more academically diverse (69%), are less disciplined (58%), and come unprepared for school due to conditions at home (64%).

Teacher Beliefs about Instructional Practices

- Over 60% of Georgia teachers believe that child-centered practices are very important or extremely important.
- Teacher beliefs about more teacher-directed practices range widely. For example, a majority believe that skills should be introduced in a linear fashion (78%), but a smaller proportion of teachers believe that each curriculum areas should be taught separately (12%) and that students should be evaluated with standardized tests (14%).
- Kindergarten through third grade teachers believe in child-centered practices, but second and third grade teachers believe in more teacher-directed practices also.
- Teachers who participated recently in staff development activities are less likely to believe that teacher-directed (less child-centered) practices should be used.

Current Instructional Practices

- Early elementary teachers in Georgia are as likely to use child-centered practices as they are to use teacher-directed practices.
- At higher grade levels, teachers are more likely to use *both* child-centered and teacher-directed (less child-centered) practices. Kindergarten and first grade teachers are less likely to use teacher-directed practices. Second and third grade teachers use teacher-directed practices as often as they use child-centered instruction.
- Unexpectedly, staff development is not significantly related to the instructional practices of teachers. While staff development is related to teachers' *beliefs* in instructional practices, the beliefs have not been adopted into their current instructional practices.

Relationship between Beliefs and Practices

- Teacher beliefs do not drive instructional practices, currently.
- While teachers believe in practices that are more child-centered, they use child-centered practices and teacher-directed (less child-centered) practices in equal numbers.

Implications

While most teachers have observed positive effects of the Pre-K program on its students and believe strongly in child-centered practices, smaller numbers of teachers have put these beliefs into practice. Thus, teachers appear poised and ready to use the instructional strategies necessary to sustain the positive effects of the Pre-K program, but have yet to incorporate their beliefs fully into their instruction. If the Georgia Pre-K program is to achieve the greatest success possible, teachers must believe both in the efficacy of the program and in the child-centered practices upon which it is based, *and* must put those beliefs into practice. To contribute to this end, increased staff development focused on implementing these child-centered instructional practices might prove to be an important investment for Georgia. At the same time, additional research to determine what instructional practices are developmentally appropriate for second and third grade might clarify for teachers how child-centered practices emphasized for the early grades should align with more teacher-directed activities emphasized in the later elementary years.

Introduction

Serving more than 60,000 four-year olds each year, the Georgia PreKindergarten Program (Pre-K) provides high quality preschool experiences to prepare students for kindergarten. The positive benefits resulting from Pre-K can be lost if teachers in later grades are not prepared to capitalize on the increasing capabilities of students. To sustain the positive effects of the Pre-K program, teachers in later grades need both to recognize that students are better prepared for school and to adapt their instructional practices to take advantage of their students' increasing capabilities. However, Georgia has little information on how later elementary instruction should change. This study investigates how kindergarten through third grade teachers perceive the impact of the Pre-K program, their beliefs about instructional practices, their current instructional practices, and the relationship between their beliefs and practices.

Nationally, there is widespread concern among early childhood educators about the possible negative effects on young children being taught with developmentally inappropriate instructional practices—including less child-centered and more teacher-directed practices (e.g., Charlesworth et. al., 1993; Bredekamp and Shepard, 1989; Charlesworth, 1989). Early childhood educators have expressed fear that, rather than schools being ready for children, children are pressured to be ready for a developmentally inappropriate curriculum (Kagan, 1990). As concern about appropriate instructional practices has grown, researchers have also sought to understand teachers' beliefs about instruction (Clark & Peterson, 1986; Feney & Chun, 1985; Isenberg, 1990; Pajares, 1992; Spodek, 1988). These investigations have shown that teachers' actions can be greatly influenced and even determined by their thinking (Clark, 1988). In particular, teachers' beliefs about instruction "represent the rich store of knowledge that teachers have that affects their planning" (Clark & Peterson, 1986, p. 258). Brousseau, Book, and Byers (1988) argue, "A first step toward understanding the process of schooling would be to understand the values and beliefs of those who drive the processes" (p. 33). Studies by Hollingsworth (1989), Munby (1984), and Richardson (1990) imply that the way teachers adapt or adopt practices in their classrooms relates to whether their beliefs match the assumptions inherent in new programs. Thus, understanding teachers' beliefs may further the development and implementation of the Georgia Pre-K program.

The Council for School Performance launched this study to examine the implications of the Pre-K program for teachers of children in kindergarten through third grade. A mail survey was sent to a probability sample of 495 kindergarten, first, second, and third grade teachers in March 1999 (see Appendix). Third grade teachers were included even though these teachers are less likely to have as many Pre-K children as the kindergarten through second grade teachers. Of the 495 teachers surveyed, 295 returned the questionnaire for a 59% response rate. The questionnaire contained twenty questions requiring 133 responses. The questions gathered information about the teachers, their beliefs about the Pre-K program, changes in students, teacher instructional beliefs, their instructional practices, and changes in these practices. The questionnaire was designed, in part, following the National Association for the Education of Young Children (NAEYC) guidelines for developmentally appropriate practice for 5- to 8- year olds (Bredekamp & Copple, 1997). It also incorporated questions from two instruments that identify changes in instructional practice and barriers to changing instructional practice (Gansneder et. al., 1997; Heatherly et. al., 1997).

To determine if teachers' perceptions of the impact of Pre-K, their beliefs about instruction, or their current instructional practices vary systematically, teachers' responses have been analyzed by a number of different factors. For these analyses, the survey included questions on

the grade level taught and recent attendance at staff development activities. Teachers were also asked to rank factors that have influenced their teaching, including themselves, parents, school system policy, state regulations, their principal and other teachers. Teachers rated their personal satisfaction with their own teaching practices. Finally, the survey also gathered information about teacher perceptions of the percentage of their students that have attended the Georgia Pre-K program.

Teacher Awareness of the Impact of the Pre-K Program

For teachers to capitalize fully on the positive outcomes of the Pre-K program, they must first believe that their students have more capacity for learning. Based on the survey data, Georgia kindergarten through third grade teachers feel that the Pre-K program has had a positive impact on students. The majority of teachers feel that after completing the program, students are better prepared or much better prepared for socialization skills development, reading skills development, math skills development, and appropriate classroom behavior than students who have not attended Pre-K (see Figure 1). Additionally, teachers rate the impact of the Pre-K program higher in all areas than the impact of HeadStart and at-home experiences. Teachers rate the impact of the Pre-K program only slightly higher than private preschool experiences and this difference is not statistically significant (see Figure 2).

Figure 1. Percentage of Teachers Believing that Pre-K Prepares Students Better or Much Better in Socialization, Math, Reading, and Classroom Behavior

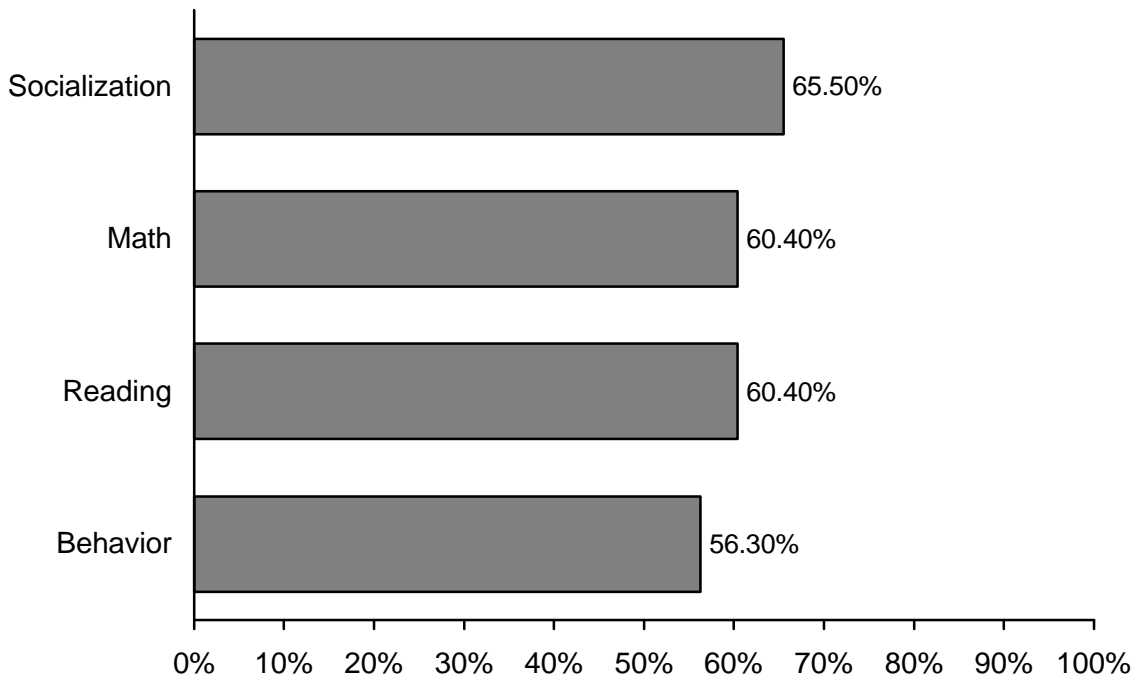
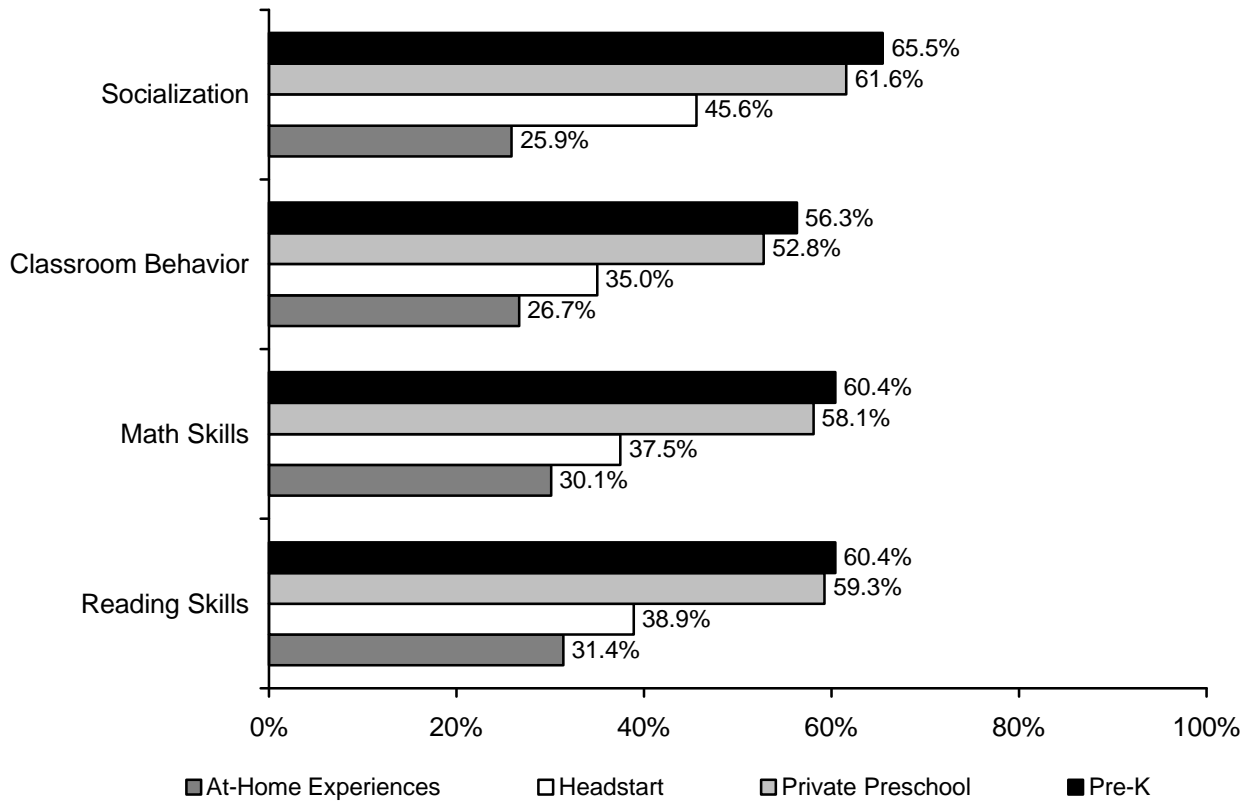


Figure 2. Comparison of the Percentage of Teachers Believing Students are Better Prepared and Much Better Prepared by Pre-K, Private Preschool, Headstart, and At-Home Experiences



To determine if perceptions of the impact of Pre-K vary systematically with other factors associated with teachers and teaching, teachers' perceptions have been analyzed by grade level taught, participation in staff development, perceived influence on teaching, satisfaction with teaching, and teacher perceptions of the percentage of their students who have attended Pre-K. Analyzing the relationship between these factors and teachers' perceptions of the impact of Pre-K reveals that teacher perceptions do not vary significantly by the perceived percentage of their students who had attended Pre-K.

Perceptions of the impact of Pre-K do vary by the other factors, however. Grade level taught, recent staff development, and satisfaction with teaching are significantly related to perceiving benefits of the Pre-K program. Kindergarten teachers are the least likely to see that the Pre-K program has a positive impact on classroom behavior while second and third grade teachers are the most likely to believe it positively impacts behavior. Teachers who have attended staff development in the last twelve months believe that the Pre-K program has a strong impact on reading and math. Teachers who are most satisfied with their teaching also perceive that the Pre-K program has a positive impact on reading.

Influence over teaching also relates significantly to perceived impact of Pre-K. Teachers indicating that their school system has had the most influence over their teaching feel most

strongly that the Pre-K program has had an impact on reading and math skill development in their students. On the other hand, teachers citing themselves as the strongest influence over their own teaching feel that the Pre-K program has had little or no impact on reading, math, or classroom behavior.

Teacher Perceptions of Changes in Children Overall

Georgia's kindergarten through third grade teachers believe that their students overall are changing for the worse (see Table 1). The majority of the teachers feel that their students are more academically diverse (69%), less disciplined (58%), and unprepared for school due to conditions at home (64%). When beliefs about student changes are analyzed by perceived percentage of Pre-K students, recent staff development attendance, and influences on teaching, no significant differences are found.

Table 1. Percentage Responding Positively within Each Grade Level to Student Change Questions¹

Teacher Perceptions of Students Overall	K	1st	2nd	3rd
My students are more motivated than they have been in the past.	42.0	50.8	41.9	32.5
My students are achieving at higher levels than they have in the past.	54.0	62.1	48.4	40.0
My students are achieving at lower levels than they have in the past.	10.0	12.1	22.6	11.3
There is greater diversity in achievement among my students.	74.0	68.2	57.4	75.0
There is less diversity in achievement among my students.	12.0	15.2	17.7	27.5
My students are less disciplined than they have been in the past.	56.0	65.2	56.5	55.0
More students come unprepared for school due to situations at home.	62.0	53.0	62.9	72.5
Fewer of my students come unprepared for school due to situations at home.	18.0	24.2	21.0	11.3
My students are not any different than students I have taught in the past.	8.0	3.0	11.3	13.8

Analyzing teacher perceptions about student changes by grade level and satisfaction with teaching reveals significant differences. First grade teachers are more likely to indicate that their students are achieving at higher levels than they have in the past. As the grade level taught increases, the perception of higher achievement decreases. Thus, third grade teachers are the least likely to indicate that their students are achieving at higher levels. Teacher satisfaction is positively related to perceptions about changes in students overall. Teachers who are very satisfied with their teaching are more likely to indicate positive changes in their students and less likely to indicate negative changes in students. Very satisfied teachers perceive that their students are more motivated than they were in the past, that there is less academic diversity among students, and that fewer students come to school unprepared. These teachers also are the least likely to indicate that their students are less disciplined than they have been in the past.

Analyzing teacher perceptions of changes in students overall with teacher perceptions of the impact of Pre-K reveals a significant relationship between these two factors. Teachers who perceive that their students are more motivated than in the past, are achieving at higher levels, and are coming unprepared to school in lower numbers are more likely to feel that the Pre-K program has had a significant impact on reading, math, classroom behavior, and socialization skills. Teachers who feel that their students are achieving at lower levels, are less disciplined,

¹ Figures represent the percentage responding within each grade level and not within the entire sample; as a result, percentages will not equal 100.

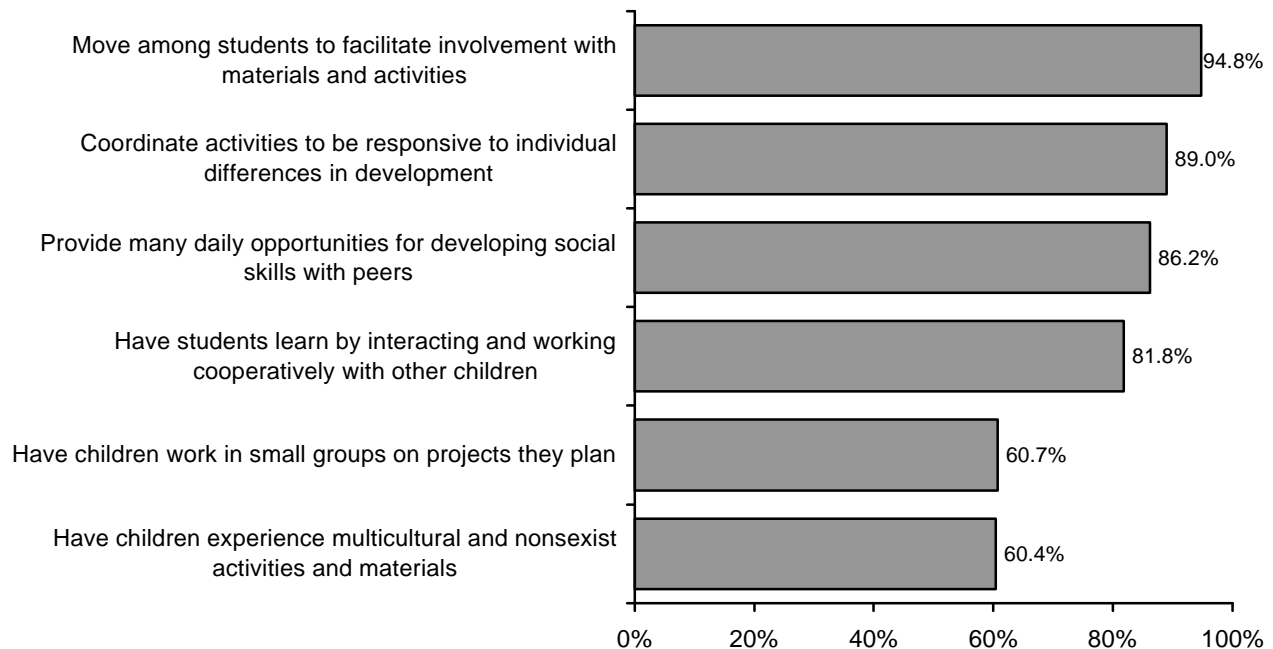
and are coming unprepared for school in higher numbers are more likely to believe that the Pre-K program has had little to no impact on reading, math, classroom behavior, and socialization skills.

The majority of teachers recognize positive impacts of the Pre-K program on their students, despite perceptions that children overall are changing for the worse. Teachers who perceive more positive changes in students are also more likely to assess positive effects from the Pre-K program.

Teacher Beliefs about Instructional Practices

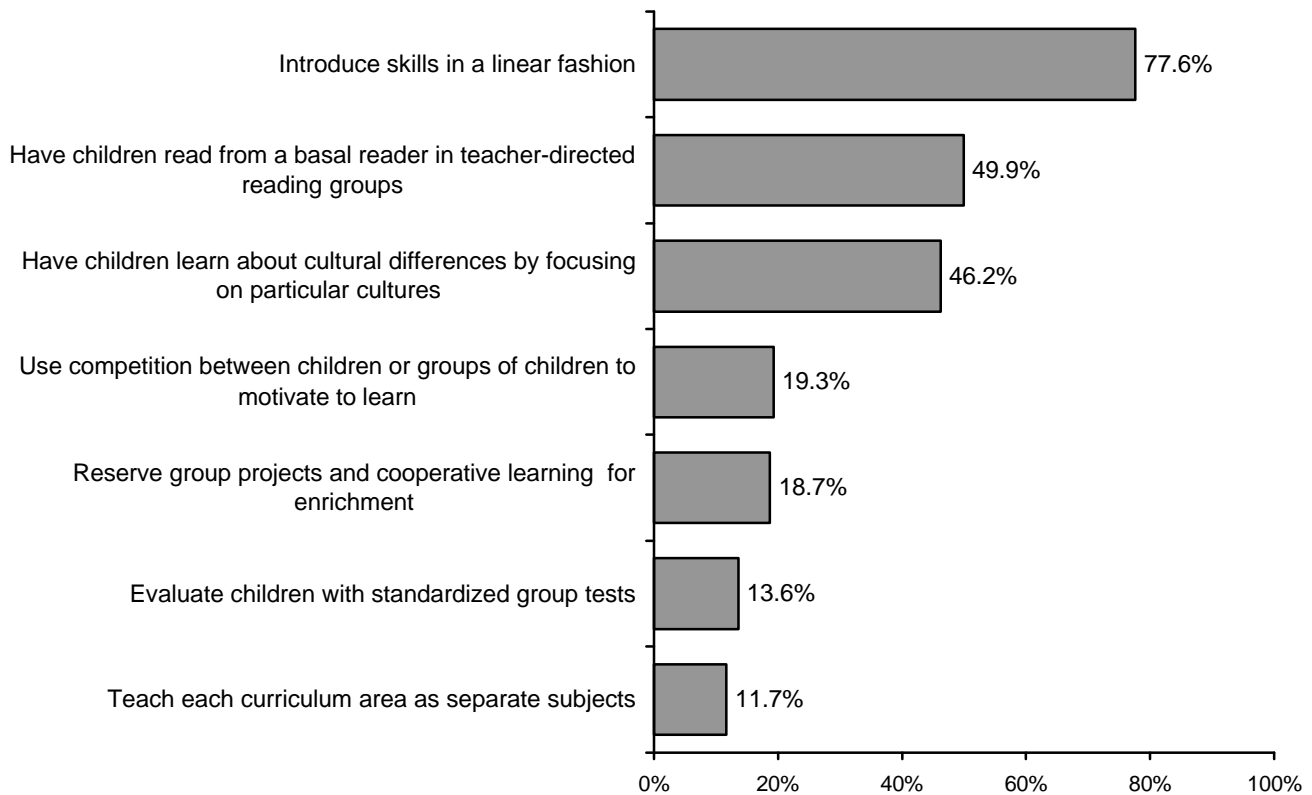
In addition to recognizing positive effects of the Pre-K program on their students, teachers believe that child-centered (developmentally more appropriate) instructional practices are also important. Over 60 % of Georgia kindergarten through third grade teachers believe that child-centered practices are very important or extremely important (see Figure 3). At the same time, their beliefs about less child-centered (developmentally less appropriate) practices range widely (see Figure 4).

Figure 3. Percentage of Teachers Believing Child-Centered (More Appropriate) Practices for Young Children Are Important



The vast majority of the teachers believe that it is very important or extremely important to move among groups and individuals to facilitate involvement in activities (95%) and to provide daily opportunities for developing social skills (86%). Teachers also believe that it is very important or extremely important that students learn by interacting and working cooperatively with other children (82%), by working in small groups on projects (61%), and by experiencing multicultural or nonsexist materials (60%). Finally, the majority of teachers also believe in the child-centered practice of making activities responsive to individual differences in development (89%).

Figure 4. Percentage of Teachers Believing that Less Child-Centered Practices for Young Children Are Important



Teachers believe that most of the teacher-directed (developmentally less appropriate) practices are not very important, but they do support some of these practices. For example, 78% of the teachers believe that it is very important or extremely important to introduce skills in a linear fashion to ensure mastery. Also, half of the teachers believe in the practice of having students read from a basal reader daily in teacher-directed reading groups. Some teachers (46%) also believe that it is very important or extremely important that children learn about cultures by focusing on particular cultures and customs. Despite these expressions of belief in some developmentally less appropriate practices, smaller proportions of teachers believe in the less child-centered practices of reserving group projects for enrichment (19%), using competition to motivate children to learn (19%), evaluating students with standardized tests (14%), and teaching each curriculum area separately (12%).

To determine if beliefs vary systematically, teacher beliefs have been analyzed according to the factors previously mentioned, including grade level taught, recent participation in staff development, perceived influence on teaching, satisfaction with teaching, and perceived percentage of their students completing Pre-K. Teacher beliefs about instructional practices vary significantly with all of these factors except for the number of years teaching.

When beliefs are analyzed by grade level taught, a number of significant differences are revealed. For example, kindergarten teachers are the most likely to believe that it is important

to provide daily opportunities for developing social skills. As grade level increases, teachers become less likely to believe that this is important, so that third grade teachers are the least likely to believe this practice is important. Also, third grade teachers are significantly less likely to believe it is important for students to learn by working together than any other grade level. When the beliefs of kindergarten and first grade teachers are compared with those of second and third grade teachers, the differences in belief become more pronounced. Kindergarten and first grade teachers are more likely to believe in child-centered practices than in developmentally less appropriate practices, while second and third grade teachers believe both in child-centered and less child-centered practices.

Recent participation in staff development activities also significantly relates to teacher beliefs about child-centered practices. For example, if the teachers have recently attended (within 12 months) a staff development workshop, they are less likely to believe that each curriculum area should be taught as separate subjects. The more time that has passed since attending a staff development workshop, the more likely the teachers are to believe that each subject should be taught separately. Also, teachers who have recently attended staff development workshops are less likely to believe that skills should be introduced in a linear fashion. The longer it has been since attending a staff development workshop, the more likely the teachers are to believe that skills should be introduced in this fashion.

Teachers were also asked, in the survey, to rank the amount of influence others had over their teaching. The list of influencers included themselves, parents, school system policy, state regulations, their principal, and other teachers. Again, beliefs about child-centered practices were significantly different depending on who or what the teacher ranked as having the most influence on teaching. For example, teachers who ranked state regulations as having the most influence on their instructional practices were most likely to believe in the less child-centered practice of introducing skills in a linear fashion. Teachers ranking themselves as having the most influence over their teaching were the least likely to believe in the practice of introducing skills in a linear fashion.

When teachers were asked to rate satisfaction with their own teaching practices, generally, the more satisfied they are, the more likely they are to believe that child-centered practices are important. Conversely, the less satisfied teachers are with their teaching practices, the more likely they are to believe that developmentally less appropriate practices are important. Teachers highly satisfied with their teaching are more likely to believe in the practices of providing daily opportunities for socialization, moving among students to facilitate learning, having children work on group projects, and having learning activities that are responsive to individual developmental needs. Teachers who rate their satisfaction with teaching a 3 or lower on the five-point scale are less likely to believe in these child-centered practices.

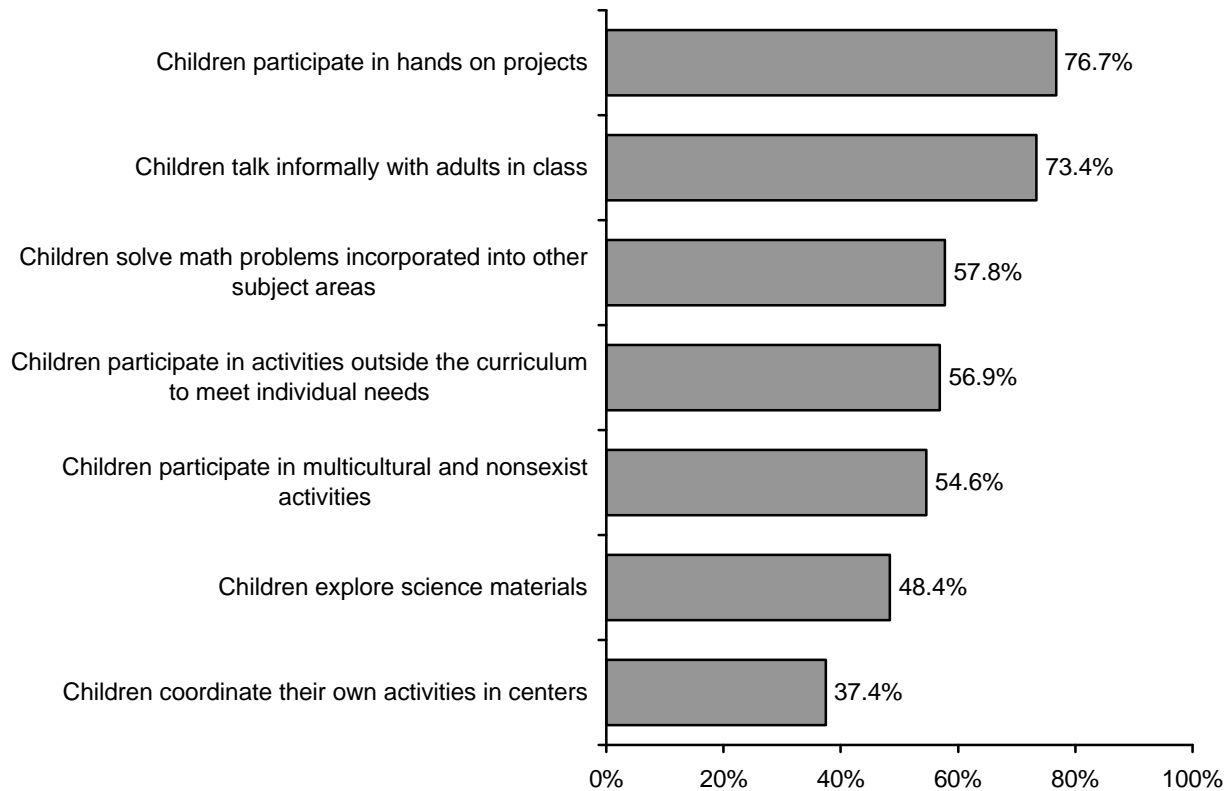
Finally, teachers were also asked what percentage of their students they believed had attended the Georgia Pre-K program. The perceived percentage of students having attended Pre-K is significantly related to belief in child-centered practices, but in a somewhat mixed way. Teachers perceiving that more than 75% of their students had participated in Pre-K are more likely to believe in the practice of introducing skills in a linear manner—a teacher-directed practice. In contrast, teachers who thought they had a low percentage of Pre-K (less than 25%) are less likely to believe skills should be introduced that way. Teachers who thought they had a low percentage of Pre-K students are also less likely to believe that group projects should be reserved for enrichment. Teachers who thought they had 50% or more Pre-K attendees believe that group projects should be used only for enrichment—another teacher-directed practice.

Thus, teachers who perceive that most of their students have attended Pre-K are more likely to believe in teacher-directed (developmentally less appropriate) practices.

Current Instructional Practices

The majority of teachers believe in child-centered (developmentally more appropriate) instructional practices, but this belief has not been adopted into their own instructional practices. Overall, the kindergarten through third grade teachers participating in the survey are as likely to use child-centered practices (see Figure 5) as they are to use less child-centered and more teacher-directed practices (see Figure 6). The survey asked teachers to rate the frequency of using several instructional practices, according to a five-point scale, where 1 represents *Never Use*, and 5 represents *Use Very Often*.

Figure 5. Percentage of Teachers Using Child-Centered Practices



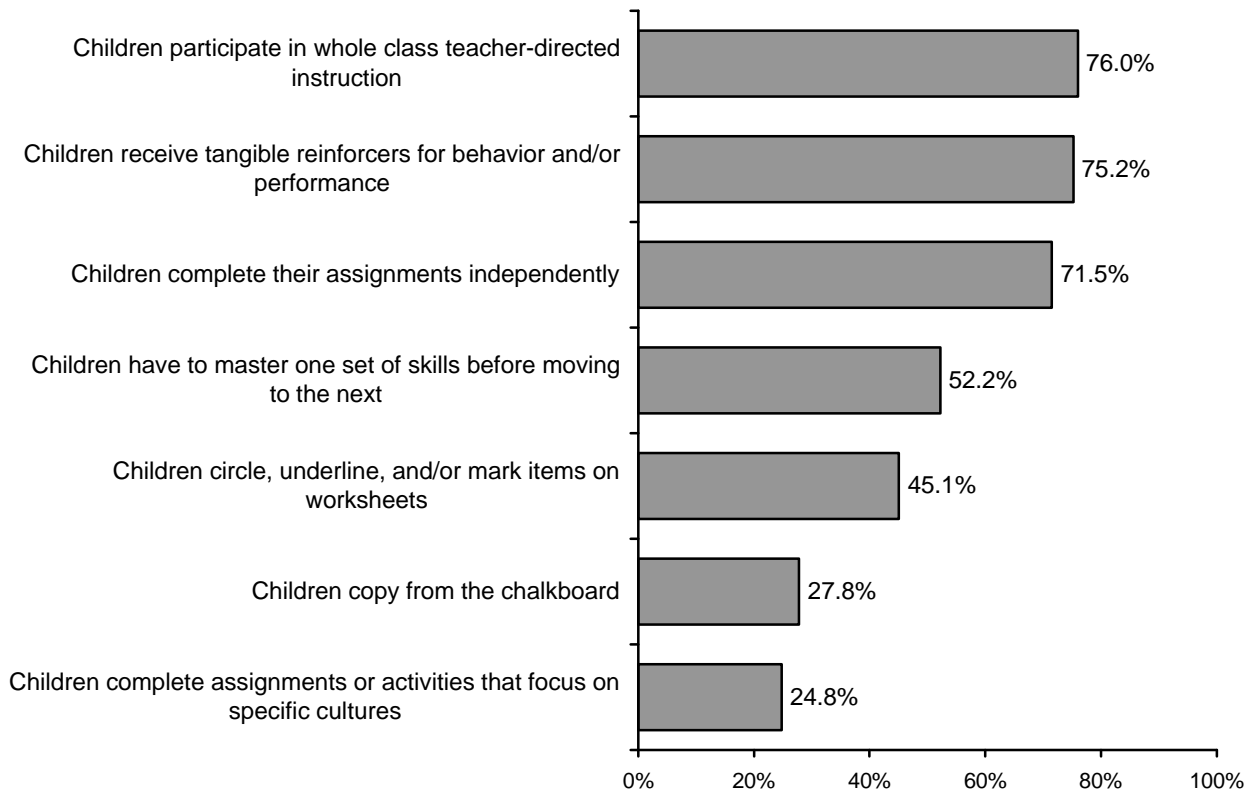
A large proportion of teachers apparently found their own balance, as indicated by their reports, indicating that *both* child-centered practices and less child-centered practices are used regularly or very often. For example, 73% of teachers have children talk informally with adults in class—a child-centered practice—yet, 76% of the teachers also have children participate in whole class teacher-directed instruction—a less child-centered practice. Similarly, 77% of the teachers have their students participate in hands-on projects—a child-centered practice—while 72% also have children complete their assignments independently—a less child-centered practice.

These patterns continue for most of the practice questions but the results are less striking. For example, 52% of the teachers have children master one skill at a time and 45% have children

circle, underline or mark items on worksheets. Both are considered less child-centered (developmentally less appropriate) for these grade levels. At the same time, only 37% of the teachers have children coordinate their own activities in centers and only 48% of the teachers have children explore life science or physical science materials such as animals, plants, wheels, or gears. Both of these practices are child-centered (developmentally more appropriate) for these grade levels.

For some of the instructional practices, similar percentages of teachers report using the practice as report not using the practice. For example, 28% of the teachers use the practice of having children copy from the chalkboard—a less child-centered practice—while 35% rarely or never use this practice. A quarter of teachers report having children complete assignments or activities focusing on specific cultures or customs—another less child-centered practice—and another 25% of teachers report rarely or never using this practice.

Figure 6. Percentage of Teachers Using Less Child-Centered Practices



When teacher practices are analyzed by grade level taught, participation in staff development, perceived influence over teaching, satisfaction with teaching, and teachers' perceptions of the percentage of students who had attended Pre-K, a number of significant differences in practice can be found. Unexpectedly, staff development and perceived influence over teaching are not significantly related to the instructional practices of teachers. Both of these factors are related to belief in instructional practices, however, suggesting that these elements have affected the beliefs of teachers without fully transferring to their instructional practices.

As grade level taught increases, teachers are more likely to use *both* teacher-directed (less child-centered) and child-centered practices. Second and third grade teachers report using a wide variety of child-centered *and* teacher-directed practices. However, kindergarten and first grade teachers are less likely to use teacher-directed practices. Thus, second and third grade teachers generally use child-centered practices as often as kindergarten and first grade teachers, but second and third grade teachers use teacher-directed practices as often as they use child-centered practices. For a couple of practices, the use of child-centered practices decreases as the grade level rises. For example, kindergarten teachers are the most likely to provide daily opportunities for developing social skills with adults, first grade teachers are less likely, second grade teachers are even less likely, and third grade teachers are the least likely to provide children these opportunities. This trend also holds true for having children solve math problems that are incorporated into other subject areas.

As is the case with teachers' beliefs, satisfaction with teaching is significantly related to the use of child-centered instructional practices. The most satisfied teachers are the most likely to: allow children to coordinate their own center activities, incorporate math problems in other subjects, have children participate in hands-on activities, and incorporate activities outside the set curriculum to meet students' individual needs—all child-centered practices. It should be noted that teachers who are dissatisfied with their teaching practices are not necessarily more likely to engage in teacher-directed practices. However, they are less likely to engage in child-centered practices.

Again following the pattern of belief in instructional practices, the perceived percentage of students having attended the Georgia Pre-K program is significantly related to use of child-centered practices. Teachers who perceive that higher numbers of student have attended Pre-K are more likely to engage in teacher-directed practices. Teachers perceiving that they have lower numbers Pre-K students are less likely to utilize teacher-directed practices. For example, teachers who perceive that less than 25% of their students attended the Pre-K program were the least likely to use worksheets, whole class teacher-directed instruction, and assignments that focused on specific cultures and customs. As the perceived percentage of Pre-K students increases from 25% to 75% or more, teachers become more likely to use worksheets, whole class teacher-directed instruction, and assignments that focused on specific cultures and customs—all more teacher-directed practices.

Relationship between Instructional Beliefs and Practices

Georgia's kindergarten through third grade teachers believe in child-centered practices, but their beliefs have not yet been fully translated into their instructional practices. Statistical analysis of the relationship between teachers' instructional practices and their beliefs reveals that their instructional practices do not vary significantly with their beliefs. As discussed in the previous section, teachers use both child-centered and teacher-directed practices with the same frequency. Therefore, it cannot be concluded that teachers who believe strongly in child-centered practices are also more likely to engage in those practices. Nor can it be concluded that teachers who believe more strongly in teacher-directed practices are more likely to engage in these developmentally less appropriate teaching practices.

Other research on teachers' beliefs and practices suggests two possible explanations for the inconsistency. First, Kinzer (1988) found in a similar study of teachers' beliefs and practices that inconsistency was due to state and/or district level curriculum requirements to use a skills-based approach to instruction. Hitz and Wright (1988) found that when kindergarten teachers perceive an increasing emphasis on academic skill development they feel forced to teach in a

manner that is developmentally less appropriate (less child-centered). This research would indicate that even when teachers believe in the use of child-centered practice they will engage in more teacher-directed practice if they feel pressured by state or district requirements to increase academic achievement.

If this explanation applies to Georgia teachers, perhaps they have yet to translate their beliefs in child-centered practice into their own instruction because they feel pressured to maintain more teacher-directed practices. However, the survey data do not support this idea. No significant relationship exists between influences over teaching and the current instructional practices. A relationship does exist between influences over teaching and belief in instructional practices for the teacher-directed practice of introducing skills in a linear fashion. Teachers citing state regulations as influencing them most are more likely to believe in this practice. If other pressures are preventing teachers from applying their instructional beliefs, they are not evident in this analysis.

Another possible explanation for the apparent inconsistency in the beliefs and practices is that teachers are currently undergoing a change process. Other research indicates that teachers will be inconsistent in their beliefs and practices if they are currently, or have recently, changed their teaching practices. Richardson, Anders, Tidwell, and Lloyd (1991) found that beliefs and practices of reading teachers became inconsistent when they were in the process of change. In their study, they found that teachers changed their beliefs and then later changed their practices to reflect those beliefs. This finding by Richardson et. al. contradicts a finding in studies of staff development in which teachers changed their behavior first and then changed their beliefs (Guskey, 1986).

According to Richardson's findings, Georgia teachers might be in the process of changing their teaching practices, now that their beliefs have changed. Survey data support this theory somewhat. Recent attendance at staff development workshops positively relates to belief in child-centered instructional practices, suggesting that staff development activities—one mechanism for changing teacher beliefs and practices—reinforce or develop belief in child-centered practices. Recent attendance has not yet led to changes in instructional practice, however, but that change may still occur.

Other information gathered in the survey also tenuously supports the idea that Georgia teachers are undergoing changes in their teaching practices—even if those practices lag somewhat behind their beliefs in child-centered practices. When teachers report on changes in their teaching during the last two years, 85% report that they have implemented new teaching methods, and 96% find themselves more committed to using hands-on experiences in their classrooms. Almost three-fourths (74%) of teachers report that teachers in their school are continually learning new teaching practices. Only a quarter of teachers cite their students' behavior as preventing student-centered activities in the classroom.

This Georgia study offers evidence of another potential explanation for the inconsistency between belief and practice. While research demonstrates that child-centered practices are considered developmentally more appropriate for the early grades, less is known about developmentally appropriate practices as students make the transition from second and third grade to the more teacher-directed learning in upper elementary grades. Thus, perhaps teachers in second and third grades believe in both child-centered and more teacher-directed practices and use *both* of these practices with similar frequency because they receive somewhat conflicting messages about the most appropriate instructional practices for their students.

Implications

Previous research clearly indicates the importance of teachers' beliefs in the successful implementation of school programs. When teachers' beliefs are consistent with program philosophy, teachers are more likely to adopt, or adapt to, the program. If the Georgia Pre-K program is to achieve the greatest success possible, teachers must recognize the positive impact of the program and believe in the developmentally appropriate practices upon which it is based. While this study indicates that teachers do believe in child-centered instructional practices, these beliefs have not consistently been translated into instructional practices that would enhance the long-range impact of the program.

Thus, teachers appear poised and ready to use the instructional strategies necessary to sustain the positive effects of the Pre-K program, but have yet to incorporate their beliefs fully into their instruction. To contribute to the optimal success of the Georgia Pre-K program, increased staff development focused on implementing these child-centered instructional practices might prove to be an important investment for Georgia. At the same time, additional research to determine what instructional practices are developmentally appropriate for second and third grade might clarify for teachers how child-centered practices emphasized for the early grades should align with more teacher-directed activities emphasized in the later elementary years.

References

- Bredenkamp, S., & Copple, C. (Eds.) (1997). *Developmentally Appropriate Practice in Early Childhood Programs*. Washington, DC: NAEYC.
- Bredenkamp, S., & Shepard, L. (1989). How best to protect children from inappropriate school expectations, practices, and policies. *Young Children*, 44(3), 14-24.
- Brousseau, B.A., Book, C., & Byers, J.L. (1988). Teachers beliefs and the cultures of teaching. *Journal of Teacher Education*, 39, 33-39.
- Charlesworth, R. (1989). Behind before they start: How to deal with the risk of kindergarten 'failure'. *Young Children*, 44(3), 5-14.
- Charlesworth, R., Hart, C., Burts, D., Thomasson, R., & Mosley, J. (1993). Measuring the developmental appropriateness of kindergarten teachers' beliefs and practices. *Early Childhood Research Quarterly*, 8(3), 255-276.
- Clark, C.M. (1988). Asking the right questions about teacher preparation: Contributions of research on teacher thinking. *Educational Researcher*, 17, 5-12.
- Clark, C.M., & Peterson, P.L. (1986). Teachers' thought processes. In M.C. Whitrock (Ed.), *Handbook of research on teaching*. New York: MacMillan, 255-296.
- Feeney, S., & Chun, R. (1985). Research in review: Effective teachers of young children. *Young Children*, 41, 47-52.
- Gansneder, B., Hemler, D., Govett, A., Pyle, E., Obenauf, P., and Evans, J. (1997). *The Development and Testing of a Suite of Instruments for Assessing the Impact of Research Oriented Science Teaching*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Oak Brook, IL, March 21-24, 1997.
- Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher*, 15, 5-12.
- Heatherly, S. A., Obenauf, P., Govett, A., Hemler, D., Pyle, E., Evans, J. and Gansneder, B. (1997). *Inservice and Preservice Teacher Research Experiences: Impact on Views of Science and Science Teaching Practices*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Oak Brook, IL, March 21-24, 1997.
- Harkreader, S., & Weathersby, J. (1998). *Staff Development and Student Achievement: Making the Connection in Georgia Schools*. Applied Research Center, Georgia State University, Atlanta, GA: The Council for School Performance.
- Hitz, R., & Wright, D. (1988). Kindergarten issues: A practitioner's survey. *Principal*, 67 (5), 28-30.
- Hollingsworth, S. (1989). Prior beliefs and cognitive change in learning to teach. *American Educational Research Association*, 26, 160-190.

Isenberg, J.P. (1990). Teachers' thinking and beliefs and classroom practice. *Childhood Education, 66*, 322-327.

Kagan, S.L. (1990). Readiness 2000: Rethinking readiness and responsibility. *Phi Delta Kappan, 72*, 272-279.

Kinzer, C. K. (1988). Instructional frameworks and instructional choices: Comparisons between preservice and inservice teachers. *Journal of Reading Behavior, 20*, 357-377.

Munby, H. (1984). A qualitative study of teachers' beliefs and principles. *Journal of Research in Science Teaching, 21*, 27-38.

Pajares, M.F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*, 307-332.

Richardson, V. (1990). Significant and worthwhile change in teaching practice. *Educational Researcher, 19*, 10-18.

Richardson, V., Anders, P., Tidwell, D., & Lloyd, C. (1991). The relationship between teachers' beliefs and practices in reading comprehension instruction. *American Educational Research Journal, 28*(3), 559-586.

Spodek, B. (1988). Implicit theories of early childhood teachers: Foundations for professional behavior. In B. Spodek, O.N. Saracho, & D.L. Peters (Eds.), *Professionalism and the early childhood practitioner*. New York: Teachers College Press, 161-172.

Appendix

Elementary Teaching Practices and Pre-K Impact Study



This statewide survey of kindergarten through third grade teachers asks about teaching practices, the learning environment, recent changes in teaching practice, and perceptions of the impact of the lottery-funded Pre-K program. This is not an evaluation of teaching performance. All responses are confidential and will be reported only in combination with the responses of k-3 teachers throughout Georgia.

Thank you so much for taking time to complete this survey.

Please read all questions and follow all instructions very carefully. Thank you again for filling out the survey.

1. What grade do you teach?

- 1. Kindergarten
- 2. First grade
- 3. Second grade
- 4. Third grade

2. How many years have you taught at your current grade level, including this year? _____
total number of years

3. How many children are in your class? _____

4. Was there a lottery-funded pre-K program in your school during the 1997-98 school year?

- 1. Yes
- 2. No

5. Of the total number of children in your class this year, what percentage do you estimate has participated in the lottery-funded Pre-K program, whether at your school or another location?

- 1. Less than 25%
- 2. Between 25% and 50%
- 3. Between 50% and 75%
- 4. More than 75%

6. Rank the following SIX ITEMS (1-6) by the amount of influence you believe that each has on the way you plan and implement instruction, after considering children's needs.

Please use each number only once. (1=Most influence, 6=Least influence)

- Parents
- School system policy
- Principal
- Teacher (yourself)
- State regulations
- Other teachers

7. What percentage of children in your class this year has **not** attended any preschool program, including the lottery-funded Pre-K program, Headstart or other preschool programs?

- 1. Less than 25%
- 2. Between 25% and 50%
- 3. Between 50% and 75%
- 4. More than 75%

8. What has been your involvement in state and national education associations during 1998?

(Please place a check next to all that apply)

- 1. Have attended association conferences
- 2. Have held an association office
- 3. Have presented at an association conference
- 4. Have served on an association committee
- 5. Have had no involvement in a state or national education association

9. Recognizing that some things in your program are required for you by external sources, what are ***your own personal beliefs*** about primary elementary programs? Please circle the number that most nearly represents *your beliefs* about each item's importance, where 1 equals not at all important and 5 equals extremely important.

	Not at all important	Not very important	Fairly important	Very important	Extremely important
To provide many daily opportunities for developing social skills with peers in the classroom.....	1	2	3	4	5
For skills to be introduced in a linear fashion to ensure mastery	1	2	3	4	5
For teachers to move among groups and individuals, offering suggestions, asking questions, and facilitating children's involvement with materials and activities	1	2	3	4	5
For each curriculum area to be taught as separate subjects at separate times	1	2	3	4	5
For students to learn by interacting and working cooperatively with other children.....	1	2	3	4	5
For group projects and cooperative learning to be reserved for enrichment or extension activities	1	2	3	4	5
For children to experience multicultural and nonsexist activities and materials	1	2	3	4	5
Competition between children or groups of children to motivate to learn	1	2	3	4	5
For children to work in small groups on projects that they plan and conduct.....	1	2	3	4	5
Standardized group tests to evaluate children	1	2	3	4	5
That children do activities that integrate multiple subject areas For children to read from a basal reader daily in teacher-directed reading groups.....	1	2	3	4	5
For activities to be responsive to individual differences in development	1	2	3	4	5
For children to learn about cultural differences by focusing on particular cultures	1	2	3	4	5

10. We would also like to know what learning activities your students undertake and how often they engage in these activities. Please circle the number that best represents the average frequency of each activity or behavior, where 1 is an activity they *Never* engage in and 5 is an activity that they *Very Often* engaged.

	Never	Rarely	Some	Regularly	Very Often
How often do children in your class:					
Coordinate their own activities in centers	1	2	3	4	5
Have to master one set of skills before moving on to the next set	1	2	3	4	5
Talk informally with adults in class.....	1	2	3	4	5
Circle, underline, and/or mark items on worksheets.....	1	2	3	4	5
Explore life science materials such as animals and plants, and/or physical science materials such as wheels and gears.....	1	2	3	4	5
Participate in whole class teacher-directed instruction	1	2	3	4	5
Participate in multicultural and nonsexist activities.....	1	2	3	4	5
Complete their assignments independently	1	2	3	4	5
Participate in hands-on projects	1	2	3	4	5
Receive tangible reinforcers for appropriate behavior and/or performance	1	2	3	4	5
Solve math problems that are incorporated into other subject areas	1	2	3	4	5
Copy from the chalkboard	1	2	3	4	5
Participate in learning activities outside the set curriculum in order to meet their individual needs.....	1	2	3	4	5
Complete assignments or activities that focus on specific cultures and their customs	1	2	3	4	5

11. What has been your involvement on district or school level committees?

(Please place a check next to all that apply)

- 1. Have attended committee meetings
- 2. Have chaired committee meetings
- 3. Have presented at committee meetings

12. When did you last attend the following types of staff development activities? Please circle a response for each type of activity.

	Past 6mths	6-12mths	1-2yrs	2+yrs	Never
Single workshop	1	2	3	4	5
Sequentially organized workshops supported over time	1	2	3	4	5
Multi-day conference including many different seminars.....	1	2	3	4	5
College coursework	1	2	3	4	5
Peer organized coaching/observation sessions	1	2	3	4	5
Peer organized study groups were the primary activity.....	1	2	3	4	5

13. Each of the following statements represents a continuum of different thoughts or concepts regarding elementary education. Please rate each of the following statements on a scale from 1 to 5, where 1 equals strongly disagree and 5 equals strongly agree. Rate each activity based upon what you believe is the most appropriate action, even if this is not what is currently being done in your school.

	Strongly Disagree				Strongly Agree
Students learn best through active experience	1	2	3	4	5
Skills should be introduced one at a time	1	2	3	4	5
Every student can achieve	1	2	3	4	5
Each subject area should be allotted a fixed period of time every day.....	1	2	3	4	5
Children should have the opportunity to interact while learning.....	1	2	3	4	5
Group projects should be used as enrichment.....	1	2	3	4	5
American values should be illustrated in classroom materials.....	1	2	3	4	5
Skills can be introduced in a non-linear fashion	1	2	3	4	5
Students learn best with teacher directed instruction	1	2	3	4	5
Students learn better when the subject areas are organized around a theme	1	2	3	4	5
There are some students that can not achieve	1	2	3	4	5
Small group projects can accomplish many curriculum goals.....	1	2	3	4	5
Children should move through a set of teacher initiated activities	1	2	3	4	5
Cultural differences are best explained by focusing on customs	1	2	3	4	5

14. We would like to know what teaching practices you use and how often you use these practices. Please rate each of the following statements on a scale from 1 to 5, where 1 is a statement that describes a practice you *Never* use and 5 is a statement that describes a practice you *Always* use. Please circle the response that best describes your current use of the practice.

	Never				Always
Students can discuss assignments.....	1	2	3	4	5
Students must master one set of skills at a time	1	2	3	4	5
I give my students individualized attention.....	1	2	3	4	5
The majority of my time is spent on reading and math.....	1	2	3	4	5
My classroom has areas where children can work together	1	2	3	4	5
I use worksheets to reinforce important skills	1	2	3	4	5
Cultural diversity is reflected in my classroom materials	1	2	3	4	5
I deviate from the curriculum to meet student needs.....	1	2	3	4	5
Students complete their assignments independently	1	2	3	4	5
I integrate math and reading into other subjects	1	2	3	4	5
My goal with low achieving students is to maintain their skills.....	1	2	3	4	5
There is time in my class schedule to complete group projects.....	1	2	3	4	5
The materials in my class have specific purposes	1	2	3	4	5
I highlight different cultures by focusing on their customs	1	2	3	4	5

18. We would also like to know about any recent changes in your students.

(Please place a check next to all that apply)

- 1. My students are more motivated than they have been in the past.
- 2. My students are achieving at higher levels than they have in the past.
- 3. There is greater diversity in achievement among my students.
- 4. There is less diversity in achievement among my students.
- 5. My students are achieving at lower levels than they have in the past.
- 6. My students are less disciplined than they have been in the past.
- 7. More of my students come unprepared for school due to situations at home.
- 8. Fewer of my students come unprepared for school due to situations at home.
- 9. My students are not any different than students I have taught in the past.

19. Has the presence of lottery-funded Pre-K participants in your classroom enabled you to change any of your instructional methods?

1. Yes 2. No

20. We are interested in your perception of the impact different Pre-K experiences have on children at your school. Using a scale of 1 to 5, where 1 means much less prepared, 5 means much better prepared, and 3 means no difference, record what impact you believe each type of experience has on children's level of preparedness for each of the listed items.

	Much Less				Much Better
Headstart:					
Reading skills development	1	2	3	4	5
Math skills development.....	1	2	3	4	5
Appropriate classroom behavior.....	1	2	3	4	5
Socialization skills development.....	1	2	3	4	5
Lottery-Funded Pre-K Experience:					
Reading skills development	1	2	3	4	5
Math skills development.....	1	2	3	4	5
Appropriate classroom behavior.....	1	2	3	4	5
Socialization skills development.....	1	2	3	4	5
Preschool experience other than lottery-funded or Headstart:					
Reading skills development	1	2	3	4	5
Math skills development.....	1	2	3	4	5
Appropriate classroom behavior.....	1	2	3	4	5
Socialization skills development.....	1	2	3	4	5
At-Home Experience:					
Reading skills development	1	2	3	4	5
Math skills development.....	1	2	3	4	5
Appropriate classroom behavior.....	1	2	3	4	5
Socialization skills development.....	1	2	3	4	5

Do you have any questions or comments? If so, please feel free to address them in the space provided below.

Thank you very much for your time. Please return your completed survey in the enclosed self-addressed, stamped envelope.

Should you have any questions about this survey or the study, please contact Dr. Darleen Opfer at xxx.xxx.xxxx.