

Parental Learning and School Readiness in the Gearing Up for Kindergarten Program

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Introduction and Background

School readiness of children entering kindergarten has become a topic of substantive interest and attention in early childhood care and education (McLanahan, 2005). As a child's first teacher, parents play a vital role in understanding the readiness of their children and what they can do as parents to prepare their children for a successful school experience (Zill, 1995). Child advocates contend that children will be less likely to enter school ready to learn unless families, schools, and communities work together to provide environments designed to support the growth of children across all areas of development (Walsh, 2005).

Parent education tends to be more successful when it responds to specific family concerns and meets the developmental priorities of children at specific points in time (Duncan & Goddard, 2005). With the increased emphasis on school achievement fostered by the No Child Left Behind Act and greater global competition in education, American schoolchildren are being asked to enter school more prepared and ready to learn than ever before. Research on children and school achievement has clearly showed that parental involvement is among the best predictors of a child's readiness and performance in school (Henderson & Berla, 1994). School readiness has been defined as "the skills, knowledge, behaviors, and accomplishments that children know and can do as they enter kindergarten in the following areas of child development: social and emotional development; approaches to learning; language and literacy development; creativity and the arts; cognition and general knowledge; and physical well-being and motor development" (Minnesota Department of Education, 2007, p. 1). To meet the needs of children preparing for school and their parents at a key developmental and social time period, the *Gearing Up for*

Kindergarten educational program was developed within the NDSU Extension Service at North Dakota State University.

Gearing Up for Kindergarten – A Parent Education and School Readiness Program

Gearing Up for Kindergarten is a prevention-focused parent and family education program designed to facilitate parental involvement, child development and school readiness. The program was developed and has been piloted under the direction of the NDSU Extension Service and in collaboration with local public schools and Head Start in Fargo, North Dakota. Initial funding for program development and implementation was received through the United Way foundation under its Success by Six grant initiative, which targets program efforts toward early childhood education and support for young children. The initial year of operation was the 2006-2007 academic year.

The *Gearing Up for Kindergarten* program consists of two eight-week sessions that run for an hour and a half each time. The program is designed for families and children to participate during the year prior to entering kindergarten, typically running for eight weeks in the fall and then for eight weeks in the spring of the pre-kindergarten year. The hour and a half sessions begin with 45 minutes of parent-child interaction activities focused on math, reading, sensory awareness, science, art, and imaginary play. The parents then separate for parent education on topics related to child development and school readiness (topics include child guidance, media, importance of sleep, temperament, reading and children, nutrition, children and math, brain development, parenting styles, and other issues). The children join with a preschool facilitator and classroom assistant to engage in circle time and other preschool activities. The child activities focus on sharing, getting along with others, listening, taking turns, responsibility, and cognitive and literacy skills. Parents and children are introduced to quality children's books each week, signed up to receive books in the home, and encouraged to check out and read books from the library on a weekly basis.

In order to instill knowledge and self-confidence in children, parents need to be made aware of and given helpful tools to prepare their children for kindergarten. Parents are a child's first and best teachers, but many parents want and need support in their role of preparing their children for success in school. *Gearing Up for Kindergarten* is designed to provide the needed support for parents and children by improving access to information, providing a preschool setting and parent education class, partnering with organizations that work with young families, and building relationships between children, parents and school personnel.

Purposes of the Study

Parent and family interventions targeted at younger ages have great potential to generate cumulative benefits by altering a child's future developmental trajectory (Heckman, 2000). Parents and their knowledge and involvement have a key role in preparing children for a successful transition into school (Epstein, 2001). Assessment of educational programs meant to assist parents and children can provide needed insights on how individuals perceive a program and what aspects of the program are working.

The purpose of this study was to gather information on basic demographics of program participants, parent perceptions of the general value and impacts of the program, their perceptions on the value of specific topics in the program, and perceived impacts of the program on parents. Parents were asked to rate:

- *Overall value of the educational program;*
- *General impacts of the program on overall parenting and knowledge;*
- *Value of specific class sessions to parents; and*
- *Perceived impacts of the program on parental knowledge and behavior in areas related to school readiness.*

This process facilitated the assessment of how *Gearing Up for Kindergarten* affected parents of pre-kindergarten children in its pilot year, and further allowed insight into the perceived impacts of the program across a variety of areas.

Methodology and Sample

Gearing Up for Kindergarten operated in its pilot year (2006-07) at five specific sites which included four elementary schools and one Head Start program in Cass County, North Dakota. Recruitment brochures were developed and distributed through a variety of cooperating agencies, including local schools, child care referral programs, social services, public libraries, and child care settings. Sites operated with an enrollment limit of 15 families per site and total enrollment for fall 2006 was 69 families. Parents and their pre-kindergarten children participated in two eight-week educational sessions, one beginning in fall 2006 and the second taking place in spring 2007. Parents completed a retrospective self-report questionnaire twice, once at the end of the first eight-week session and again at the completion of the program. These two survey tools were utilized to gather information on perceptions of program value and impact for participants.

A total sample of 59 participants from all five programs sites completed the program evaluation survey, resulting in an 85.5% response rate to the survey. Seventy-eight percent of respondents were women and 22% were men. The mean age for parents in the study was 33.8 years ($SD=7.12$ years). The average number of children these parents reported having was 2.29 children ($SD=1.23$). The majority of respondents (96.6%) reported themselves as Caucasian, followed by Native Americans and African Americans (1.7% each). The majority of respondents (93.2%) reported being currently married, followed by single and never married (5.1%) and cohabiting (1.7%). Forty-seven percent (47.5%) of participants reported having a 4-year college degree or higher, followed by a 2-year college degree (22%), "some college" (22%), high school degree/GED (6.8%), and "some high school" (1.7%). A majority of participants (64.4%) indicated they held full-time employment, followed by 26-39 hours of work a week (10.2%), employed less than 25 hours a week (8.5%), not seeking outside employment (11.9%), and other (5.1%; student status, etc.). Seventy-eight percent of parents lived in an urban setting, followed by 22% in a rural setting. Finally, 89.9% of participants indicated involvement in 6 or more sessions of the program during fall 2006, which was also similar in the spring session (88%).

Study Findings

The primary focus for the program assessment centered on the overall value and perceived impacts of the *Gearing Up for Kindergarten* program on parent participants. Assessment of impacts regarding children's school readiness was also evaluated but results are not included in this portion of the study. The two retrospective questionnaires had the same questions on overall value and general impacts of the program, while questions on specific class sessions and parent impacts were specific to the particular session of the program. Overall value of the educational program was assessed with four questions using a 5-point scale from "not useful" to "extremely useful." General impacts of the program on overall parenting and knowledge were assessed with six questions using a 5-point Likert scale. The perceived value of specific class sessions to parents was assessed with eight questions (for each session) using a 5-point Likert scale. Perceived impacts of the program on parental knowledge and behavior related to school readiness was assessed with 16 questions for the fall session, and 17 questions for the spring session, using a 5-point Likert scale from "hardly ever" (1) to "almost always" (5).

Overall Value of the Program

Participants were first asked about the program in general and the quality of their experiences. Asked about the "overall value of the program" to them, 73% of parents in the first program session (fall 2006) indicated it was "very useful" or "extremely useful" to them, with 76% responding similarly following the second program session. Among participants in fall 2006, 78% said the handouts and learning activities in the program were "very" or "extremely" useful to them while 76% responded similarly following the spring session. All participants agreed or strongly agreed that the information in the program was presented to them in a clear and helpful manner. Similarly, 78% of parents in the fall session strongly agreed that they were treated in a respectful manner, which then increased to 88% of parents following the spring session. These responses indicate that participants expressed positive feelings about the overall value and experience of the *Gearing Up for Kindergarten* program in its initial pilot year.

General Impacts of the Program on Overall Parenting and Knowledge

Parents described largely positive general impacts as a result of participating in the first year of *Gearing Up for Kindergarten*. Parents were asked the same questions in both post-session surveys regarding how they felt about the general impact of the program on their overall parenting and knowledge as parents.

Parents were asked six questions about overall how much the program, if at all, affected general aspects of their parenting knowledge and experience. Each question was answered on a scale from "not at all" (1) to "very much" (5), with higher scores indicating a more positive impact of the program. For parents who completed the overall program evaluation for each session in fall 2006 and spring 2007, the average mean scores for each question are as follows: (1) increased knowledge of child development (3.46 in fall, 3.56 in spring); (2) increased knowledge of healthy parenting (3.53 in fall, 3.50 in spring); (3) increased confidence in being a good parent (3.51 in fall, 3.62 in spring); (4) increased parenting skills (3.36 in fall, 3.46 in spring); (5) changed behavior as a parent (3.22 in fall, 3.28 in spring); and (6) influenced the relationship

with your child (3.42 in fall, 3.46 in spring). There were no significant differences between participant average scores on each item between the two sessions. A descriptive analysis of the statistical frequencies for each question is shared in Table 1, with two sets of responses for each question (one for each session of the program).

Table 1: General Impacts of Gearing Up for Kindergarten Program

<u>Question</u> Overall how much, if at all, did this program:	Not at All	A Little Bit	Some what	A Lot	Very Much
Increase your knowledge about child development	--	6.8% (Fa)	49.2% (Fa)	35.6% (Fa)	8.5% (Fa)
	--	12% (Sp)	36% (Sp)	36% (Sp)	16% (Sp)
Increase your knowledge of healthy parenting	--	6.8% (Fa)	40.7% (Fa)	45.8% (Fa)	6.8% (Fa)
	--	14% (Sp)	40% (Sp)	28% (Sp)	18% (Sp)
Increase your confidence in being a good parent	--	6.8% (Fa)	44.1% (Fa)	40.7% (Fa)	8.5% (Fa)
	--	14% (Sp)	36% (Sp)	24% (Sp)	26% (Sp)
Increase your skills as a parent	--	10.2% (Fa)	49.2% (Fa)	35.6% (Fa)	5.1% (Fa)
	--	14% (Sp)	44% (Sp)	24% (Sp)	18% (Sp)
Change your behavior as a parent	1.7% (Fa)	15.3% (Fa)	45.8% (Fa)	33.9% (Fa)	3.4% (Fa)
	--	20% (Sp)	48% (Sp)	16% (Sp)	16% (Sp)
Influence your relationship with your child	--	11.9% (Fa)	39% (Fa)	44.1% (Fa)	5.1% (Fa)
	--	16% (Sp)	42% (Sp)	22% (Sp)	20% (Sp)

In general, participating parents indicated very positive impacts from being involved in *Gearing Up for Kindergarten*. Of significant interest was the fact that the percentage of participants indicating that the program “very much” impacted their parenting in different areas generally increased three to four times from the first session to the second session of the program.

About half of the participants (44% in fall and 52% in spring) indicated the program increased their knowledge of child development “a lot” or “very much.” Similarly, 52.6% of parents noted it increased their knowledge of healthy parenting “a lot” or “very much” (46% in spring). Forty-nine percent (fall) felt it increased their confidence in being a good parent “a lot” or “very much,” and 41% (fall) said it increased their parenting skills “a lot” or “very much.” Additionally, 83% (fall) felt it changed their parental behavior at least somewhat and 88% (fall) indicated that it influenced their relationship with their child positively.

Value of Specific Topics to Parents

Participants were asked to rate the usefulness of different class topics on a scale ranging from “not useful” (1) to “extremely useful” (5). The perceived value of specific class sessions helps to provide insight into what topics may be most helpful to parents relative to the issue of school readiness or which topics may need further attention. The findings for class topics are provided for both eight-week sessions of the program.

In fall 2006, the most highly rated session was on reading with children ($M=3.90$) while the least valued was on the importance of sleep ($M=3.10$); however, all were rated as at least somewhat to very useful for participants in the program. In spring 2007, the most highly rated session was on child safety ($M=4.04$), and six of eight topics were rated quite highly at 3.75 or above. It seems clear that participants valued the specific topics they learned about and gained value from the learning experience. The mean score ratings for each specific topic covered in the fall and spring program sessions are listed below in Table 2.

Table 2: Value of Specific Class Topics in Gearing Up for Kindergarten Program

Class Topic – Fall Session	<i>M</i>	<i>SD</i>
School Readiness Orientation	3.51	1.02
Parenting Styles	3.76	1.02
Brain Development	3.58	1.10
Raising a Reader	3.90	1.03
Choosing Effective Discipline Techniques	3.80	1.16
Media Wise	3.66	1.29
Developing Responsibility and Self Help Skills	3.59	1.31
Importance of Sleep	3.10	1.72
Class Topic – Spring Session		
Learning Styles and School Readiness	3.86	1.14
Child Temperament	3.38	1.58
Early Literacy and Math Skills	3.62	1.32
Social and Emotional Development	3.86	1.25
Guidance and Discipline Tools	3.78	1.31
Nutrition and Children	3.88	1.29
Child Safety	4.04	1.43
Parent’s Role in School Success	3.82	1.35

Perceived Impacts of Gearing Up for Kindergarten on Parents

Participants were asked to provide a retrospective assessment of their specific knowledge and activities as parents in a number of areas, both before and after participating in the *Gearing Up for Kindergarten* program. These activities by parents are linked with assisting children toward school readiness in a variety of areas. By assessing the parents' perceptions of their activities with children both before and after the program, it is possible to gain a sense of whether the program may have had an impact on them. The activities that parents were asked about also link to things that they were learning about in the parent education program, and so the items asked about were different in the fall and spring sessions.

Parents were asked to rate themselves on a 1 to 5 scale, with answers ranging from "hardly ever" (1) to "sometimes" (3) to "almost always" (5). Parents were asked 16 retrospective post-test questions in the fall session evaluation, and 17 questions in the spring session evaluation. The average mean scores for each area of parenting from "before participation" were compared with the scores from "now, after participation," allowing a statistical comparison of significant differences before and after program participation using a paired sample T-test analysis.

Findings are presented for both sessions of the program, followed by a brief discussion of the findings. The findings show, based on the statistical analysis for the fall session, that participants experienced significant differences in 15 of the 16 parental practices related to school readiness as a possible result of their participation in the *Gearing Up for Kindergarten* program. For the spring session, participants experienced significant differences in 16 of the 17 parental practices related to school readiness. As an example of such a difference, parents rated themselves after the spring session on usage of "appropriate techniques in dealing with my child's temperament." The average post-program score ($M=4.08$) significantly exceeded the parents' assessment of their pre-program behavior in this area ($M=3.16$), $t(49) = -7.624$, $p \leq .05$. To simplify presentation of the findings, Tables 3 and 4 include the average mean scores for each item both before and after the program, the mean difference score, and a "yes/no" indicator of whether the difference between scores is statistically significant at a $p \leq .05$ level.

Table 3: Perceived Impacts on Parenting of Gearing Up for Kindergarten (Fall 2006)

As a Parent, I:	Before Participation (Mean Score)	Now, After Participation (Mean Score)	Mean Difference Score	Is there a significant difference in this area?
1. Deal well with the personal impacts of being a parent.	3.95	4.12	.17	Yes
2. Pay attention to factors that affect my growing child.	3.98	4.37	.39	Yes
3. Avoid anger or harshness in the parenting style I use with my child.	3.58	4.05	.47	Yes
4. Hold, hug, and snuggle with my child.	4.75	4.80	.05	No
5. Give my child a variety of activities and learning experiences.	4.12	4.49	.37	Yes
6. Talk, laugh, sing, and converse with my child.	4.46	4.64	.19	Yes
7. Read with my child each day.	4.41	4.56	.15	Yes
8. Discuss contents of a book or story with my child.	3.90	4.34	.44	Yes
9. Am patient in realizing my child tests limits as he or she grows.	3.73	4.24	.51	Yes
10. Focus on using positive discipline or guidance with my child.	3.75	4.25	.51	Yes
11. Set and enforce rules to guide my child's use of media.	3.81	4.22	.41	Yes
12. Help my child find other activities besides watching TV or using a computer.	4.00	4.39	.39	Yes
13. Assist my child in practicing self-care skills (like using the toilet, zipping coat, etc.).	4.08	4.32	.24	Yes
14. Give my child choices in small areas and guide those choices.	4.12	4.32	.20	Yes
15. Understand the link between my child's sleep and their behavior.	4.15	4.32	.17	Yes
16. Set and follow a structured bedtime routine with my child each night.	4.20	4.41	.20	Yes

Table 4: Perceived Impacts on Parenting of Gearing Up for Kindergarten (Spring 2007)

As a Parent, I:	Before Participation (Mean Score)	Now, After Participation (Mean Score)	Mean Difference Score	Is there a significant difference in this area?
1. Know my own and my child's learning style.	3.14	4.28	1.14	Yes
2. Explore issues to consider related to my child's school readiness.	3.12	4.30	1.18	Yes
3. Understand how my child's behavior is affected by his or her temperament.	3.18	4.10	.92	Yes
4. Use appropriate techniques in dealing with my child's temperament.	3.16	4.08	.92	Yes
5. Engage my child in learning in "everyday" activities.	3.64	4.32	.68	Yes
6. Encourage development of math skills in my child in daily activities.	3.38	4.12	.74	Yes
7. Am attentive and understanding with my child's social and emotional abilities.	3.68	4.34	.66	Yes
8. Practice social skills with my child including sharing, taking turns, and not interrupting.	3.92	4.44	.52	Yes
9. Encourage my child to think on his or her own.	3.70	4.34	.64	Yes
10. Use natural and logical consequences with my child during discipline.	3.78	4.32	.54	Yes
11. Support my child in eating healthy foods.	4.00	4.40	.40	Yes
12. Take steps in providing healthy food choices to my child.	3.98	4.46	.48	Yes
13. Have my child use booster seats while driving in the car.	4.76	4.88	.12	No
14. Teach my children at home to understand fire escape routes.	2.54	3.78	1.24	Yes
15. Have my child wear properly fitted bike helmets.	3.98	4.38	.40	Yes
16. Understand my role in my child's success at school.	4.04	4.56	.52	Yes
17. Plan on getting involved in my child's school.	4.04	4.50	.46	Yes

Participants in the fall session noted small to moderate changes in 15 of the 16 parental practices related to school readiness that were measured, with all of the changes showing positive increases in a particular parental practice (e.g., more actively discussing a story with children, helping a child find other activities besides watching TV, etc.). Following the spring session, they noted moderate to large changes in 16 of the 17 parental practices related to school readiness that were measured, again with all changes showing positive increases in a particular parental practice (e.g., using appropriate techniques in dealing with a child's temperament, providing healthy food choices to a child). Of interest is the fact that the magnitude of the changes reported by parents became more pronounced in the second session of the program, which may indicate increasing program effectiveness. These changes included 10 substantive increases of between .40 and .70 in a specific practice, and 6 large increases of .75 or higher in specific parental practices.

In the fall session, the largest six differences for participants occurred in the following areas: being patient with a child who tests limits (.51), focusing on using positive discipline approaches (.51), avoiding anger or harshness with a child (.47), discussing contents of a book or story with children (.44), setting and enforcing rules to guide media usage (.41), helping children find activities besides use of TV or computers (.39), paying attention to factors that affect child development (.39), and giving children a variety of learning experiences (.37). After the second session, the six largest differences reported by participants occurred in the following areas: teaching children to understand fire escape routes (1.24), exploring issues related to school readiness (1.18), knowing one's own and a child's learning style (1.14), understanding how temperament affects a child's behavior (.92), using appropriate techniques in dealing with a child's temperament (.92), and encouraging the development of math skills (.74).

Discussion and Applications

Children who are growing and preparing for entry into the school years benefit from parents who are knowledgeable and active in helping them to prepare (Epstein, 2001). Parent education can be a positive vehicle for helping parents to feel confident, informed, and supported in their activities and decisions (Duncan & Goddard, 2005). This study suggests that the parent education component of the *Gearing Up for Kindergarten* program provides significant and positive benefits for parents.

The findings from participants in the *Gearing Up for Kindergarten* program were generated as a result of parents' involvement in the initial pilot year of the program. These findings indicate that the program has made a good first step in assisting parents and influencing them in a positive manner, guiding them to behave in ways that will help their children toward school readiness and positive development. The significant increases that occurred in parents' efforts with their children in specific areas were typically from three to eight times higher than would be expected to occur due to random chance. These findings seem to indicate that the *Gearing up for Kindergarten* program is having a positive impact with parents.

While indications are positive, limitations in the study should also be acknowledged. The sample population was largely homogeneous, being significantly Caucasian, urban, and currently married, with most participants also working part or full time and being quite well educated.

Thus, further research with a broader population will be necessary to see whether such outcomes may be found with more diverse samples. Additionally, the usage of a retrospective post-then-pre design has been critiqued in some circles, so assessment using other evaluation methods is also recommended.

Key findings that deserve further consideration, and which can be applied in parent education and school readiness efforts, include the following:

- The findings showed significant differences in nearly all parental practices for participants before and after their participation in *Gearing Up for Kindergarten*. The period of time prior to a child's entry into school may be a key learning opportunity for engaging parents and increasing their knowledge and efforts regarding child development and school readiness.
- High levels of satisfaction with the overall value of the program suggest that parent education and programming efforts which are well designed and well implemented, even in the first year, may be more likely to yield positive gains for parents and their children.
- Evidence of increased program impact for participants developed from the first session to the second session. This pattern suggests either that programs in their pilot phase may tend to become refined and operate with higher impact as they mature and gain experience, or that participants may tend to draw more benefits from a program as they continue their involvement over time. Their awareness of its potential value to them or their effort to draw benefit from what the program offers may heighten during the second session. The somewhat unique delivery of the program, in two eight-week sessions separated by a period of two to three months, may also contribute to this pattern in some manner. This pattern warrants further investigation.
- Parental practices that showed evidence of change over time provide insight into areas of opportunity and growth for parents. Practices that showed greater evidence of participant change may be areas in which parents have the most opportunity to grow or to which they are more likely to respond in an educational setting. An awareness of these areas can help in planning parent education content and delivery.
- The combination of parent-child interaction time and a parent education session may furnish parents with increased motivation to be involved, understand their child, and take concrete steps to guide a child's school readiness.
- Parents of pre-kindergarten children have the opportunity to focus on their parenting and child development because entry into school is a key step during the developmental years. Parents are likely to be responsive to parent education offerings that highlight this step and provide them with knowledge and skills to assist their children with school readiness.

The evidence suggests that the *Gearing Up for Kindergarten* program has made a good first step in developing a sound program that assists parents and influences them in a positive manner. Parents who are involved in the program tend to indicate changes that may help them behave in ways that will help their children toward school readiness and positive development.

References

Duncan, S. F., & Goddard, H. W. (2005). *Family life education: Principles and practices for effective outreach*. Thousand Oaks, CA: Sage Publications.

Epstein, J. (2001). *School, family, and community partnerships*. Boulder, CO: Westview Press.

Heckman, J. J. (2000). Policies to foster human capital. *Research in Economics*, 54(1), 3-56.

Henderson, A. T., & Berla, N. (1994). *A new generation of evidence: The family is critical to achievement*. Washington, D.C.: National Committee for Citizens in Education.

McLanahan, S. (Ed.) (2005). School readiness: Closing ethnic and racial gaps. *The Future of Children*, 15(1). Princeton, NJ: The Brookings Institution.

Minnesota Department of Education. (2007). *Minnesota school readiness study: Developmental assessment at kindergarten entrance*. Roseville, MN: Minnesota Department of Education.

Walch, C. B. (2005). *School readiness indicators: A tool to advocate for the whole child*. Advocacy Brief. Washington, D.C.: Voices for America's Children.

Zill, N. (1995). School readiness and children's developmental status. *ERIC Identifier: ED389475* ERIC Digest.

Abstract

Entering kindergarten is a key moment in a young child's life and parents are a child's first teacher. What can guide parents as they assist children with school readiness? The NDSU Extension Service developed an intensive parent education and school readiness program to help parents and children prepare for school—*Gearing Up for Kindergarten*. Participants in the program demonstrated: (1) high satisfaction with program quality and experiences; (2) impacts on parental knowledge and confidence; and (3) significant and positive changes in parental practices related to school readiness. Parent education on school readiness can provide a substantive resource as parents help their children develop and become ready for the school years.