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***Gearing Up for Kindergarten –
Key Findings from a Control
Group Study***

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An Introduction to *Gearing Up for Kindergarten*

During the 2008-09 school year, the NDSU Extension Service took steps to conduct a careful evaluation of the *Gearing Up for Kindergarten* educational program. This process involved conducting a comparison study of the program's participants with others who did not participate.

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School Readiness

- Transition to school is a key developmental step for young children.
- Teachers estimate 32% of kids have some problems entering school, while another 16% have difficult entries.
- Quality early childhood programs are vital to student success and positive school entry.
- In ND, nearly 47,000 children ages 0-5 are preparing for school entry and need appropriate knowledge and skills.

For young children and their families, the transition to school is a major developmental step. In national research on school readiness in the U.S., teachers estimate that 32% of children have some problems entering school, while an additional 16% have difficult entries. Quality early childhood programs are valuable in assisting children and their families to develop skills for school success.

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What is Gearing Up for Kindergarten?

- *Gearing Up for Kindergarten* is a prevention-focused parent and family education program designed to facilitate child development, healthy parenting and school readiness for families in North Dakota.
- Parents and children typically attend two 8-week series of sessions, in the year prior to a child entering kindergarten.

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The NDSU Extension Service at North Dakota State University developed the *Gearing Up for Kindergarten* educational program to assist young children and parents in the year prior to a child entering kindergarten. It is a prevention-focused parent and family education program designed to facilitate child development, school readiness and healthy parenting.

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Program Objectives

- *School Readiness for Children Entering Kindergarten*
- *Parent Education*
- *Early Awareness and Intervention*
- *Parent Involvement with Children's Learning and School*
- *Building Home-School-Community Partnerships*

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The key building blocks and objectives of the program are:

- ***School Readiness for Children Entering Kindergarten***
- ***Parent Education***
- ***Early Awareness and Intervention***
- ***Parent Involvement with Children's Learning & School***
- ***Building Home-School-Community Partnerships***

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Context of the Program

- 2008-09 Year of Pilot Operation
- 18 sites in North Dakota
- 290 families enrolled

- Fall 2008 Attendance – 80%
- Spring 2009 Attendance – 73%

- Note – These attendance figures are very high for such a program.

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In 2008-2009 the program operated at 18 sites across North Dakota with 290 families enrolled. **84% of participants indicated involvement in 6 or more sessions of the program during the fall 2008 year** (or first half of the program); **86% of participants in spring 2008 indicated involvement in 6 or more sessions of the program.** This is a very high rate of participation in a program involving parents and children.

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2009 GUK Control Study - Outline

- In 2009, NDSU conducted a careful, control-group study of the *Gearing Up for Kindergarten* program. A "treatment" sample of 102 families who participated in the program during the 2008-09 year were compared to a "control" sample of 102 families who did NOT participate in the program. The program was evaluated to determine program impacts on:
 - Children – 6 areas of school readiness & child development
 - Parents – 5 areas of parenting
 - Children & parents – School knowledge & familiarity

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To assess the effectiveness of *Gearing Up for Kindergarten*, a set of 102 families that participated in the entire program ("treatment" sample) was compared to a "control" sample of 102 families who did NOT participate in the program. Areas evaluated were:

- Children – 6 areas of school readiness and child development
- Parents – 5 areas of parenting
- Children & parents – School knowledge and familiarity

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2009 GUK Control Study - Methods

- *Gearing Up for Kindergarten* participant families – 102 families completed pre-program surveys in fall 2008 (time 1), participated in the program, then completed post-program surveys in spring 2009 (time 2).
- *Control Group* participant families – 102 families completed the same pre-program surveys in fall 2008, waited until spring, then again completed post-program surveys in spring 2009. Retention of participants in the control group was 87%.

Participant families in *Gearing Up for Kindergarten* completed pre-program surveys in fall 2008 (time 1). Following participation in the 2-session program over 6 months, they then completed post-program surveys in spring 2009 (time 2). For families in the control group, they also completed the same set of surveys between fall 2008 and spring 2009 but did not engage in the program.

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Key Findings Outline

- The five areas analyzed to present the key findings of the GUK Control Group Study are:
 - General responses of Program participants
 - Impacts on Children – School Readiness Findings
 - Impacts on Parents – Parental Behavior Findings
 - Impacts on Children & Parents – School Knowledge & Familiarity
 - Selected Comparisons between Control and GUK groups on key indicators of school readiness

Key findings from the *Gearing Up for Kindergarten* Control Group Study are broken down into 5 areas:

- Part 1 – General responses of program participants
- Part 2 – Impacts on children – school readiness findings
- Part 3 – Impacts on parents – parental behavior findings
- Part 4 – Impacts on Children & Parents – School Knowledge and Familiarity findings
- Part 5 – Selected comparisons on key indicators of school readiness.

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Part 1 - General Impacts of Gearing Up for Kindergarten Program

Increase your knowledge about child development	51%	55%
Increase your knowledge of healthy parenting	62%	60%
Increase your confidence in being a good parent	70%	70%
Increase your skills as a parent	52%	57%
Change your behavior as a parent	40%	44%
Influence your relationship with your child	62%	52%

Part 1 – General Responses to the *Gearing Up for Kindergarten* Program

Among participants, over 50 percent agreed the program **increased their knowledge of child development, their knowledge of healthy parenting, and their confidence in being a good parent a lot or very much.** Additionally, **87%** felt it changed their **parent behavior at least somewhat, and 94%** indicated it influenced their **relationship with their child positively.**

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Value of Specific Information Sources Compared to Gearing up for Kindergarten Program (Spring 2009)	
a. Your parents	3.52
b. Your child's other parent	3.56
c. Friends	3.52
d. Parents with children of a similar age	3.82
e. School	3.56
f. Preschool, Head Start or child care	3.84
g. Books, magazines, newspapers	3.27
h. Gearing Up for Kindergarten class & materials	*4.12 (significantly higher than all others)

In spring 2009, participants rated parents with children of a similar age (3.82), preschool/Head Start/child care (3.84), and their child's other parent (3.56) as the most useful sources of information for them on parenting and preparing their child for school. However, **the Gearing Up for Kindergarten class and materials were rated higher than all other sources with a mean score of 4.12, indicating participants felt the class was more useful than any other source.**

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Part 2 - Impacts on Children – School Readiness Findings

- Pre-Kindergarten Children in both groups were compared on six domains of school readiness:
 - (1) Learning Approach and Effort
 - (2) Physical Skills and Abilities
 - (3) Social Skills and Development
 - (4) Academic Skills and Development
 - (5) Emotional Skills and Development
 - (6) Health, Fitness and Practical Skills

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Part 2 – Impacts on Children – School Readiness Findings

The 6 domains of school readiness assessed were:

- (1) Learning Approach and Effort
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- (5) Emotional Skills and Development
- (6) Health, Fitness and Practical Skills

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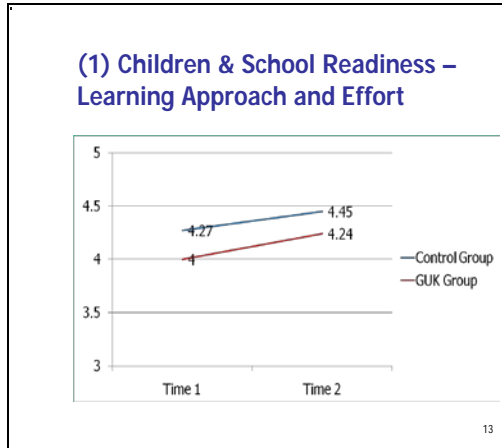
Understanding Child School Readiness Findings

- The Pre-Kindergarten Children in both groups were assessed on pre- and post-measures 6-7 months apart between fall 2008 and spring 2009.
- Children of this age group are expected to develop naturally and increase their skills as they mature. *The key question is whether the program accelerates the rate of increase for one group versus the other.*
- Most parents routinely rate their children quite highly on such measures, which is normal.
- Areas targeted by the program (pre-academic skills, etc.) are more likely to show evidence of change than those that are not targeted (physical skills, etc.).

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Pre-kindergarten children in both the *Gearing Up for Kindergarten* and control groups were assessed on pre- and post-measures 6-7 months apart between fall 2008 and spring 2009. As children in this age group are naturally developing, *the key question is whether the program accelerates the rate of increase for one group versus the other.* Also, skills targeted by the program are more likely to show evidence of impact than those that are not targeted.

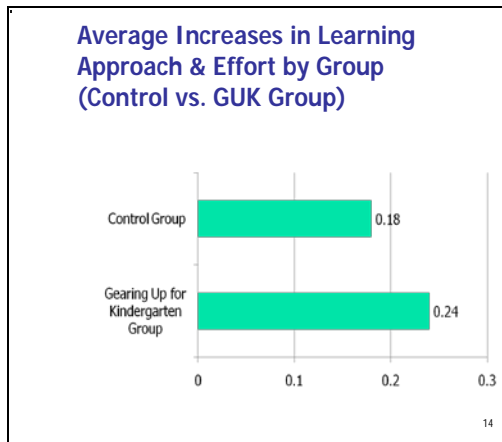
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(1) Learning Approach and Effort

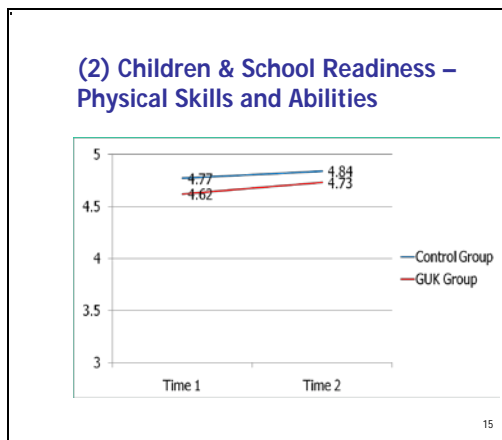
On all measures, the control group began higher than the Gearing Up for Kindergarten group. This is likely due to the fact that the control group was a more educated, affluent group of parents. However, we are most interested in comparing the rates of change between the groups.

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When the two groups of pre-kindergarten children were compared regarding average gains in Learning Approach & Effort over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase significantly higher (about 1.3 times higher) than the children in the control group.** This pattern of higher increases in the GUK group was common across all measures.

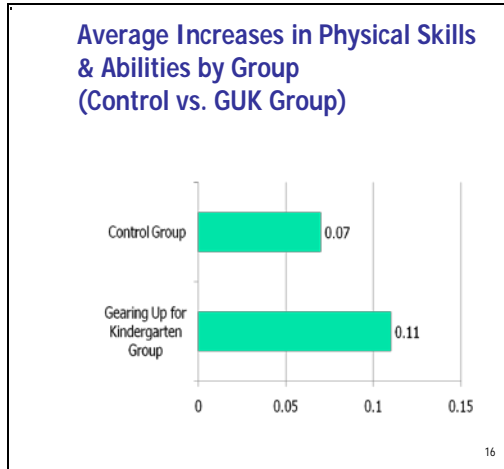
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(2) Physical Skills and Abilities

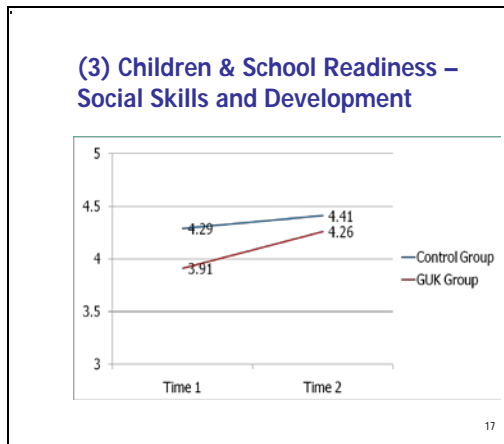
On physical skills and abilities, little change was expected as the program did not specifically target this area. Also, both groups were already rated very highly in this category by parents (over 4.5 on a 5-point scale). However, the control group saw less overall change in this area than the GUK group.

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When the two groups of pre-kindergarten children were compared regarding average gains in Physical Skills and Abilities over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase nearly 2 times higher than the children in the control group.**

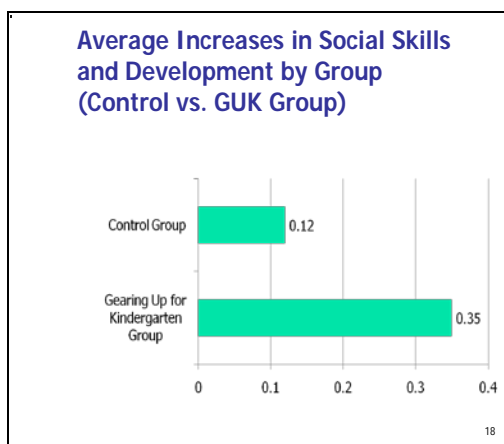
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(3) Social Skills and Development

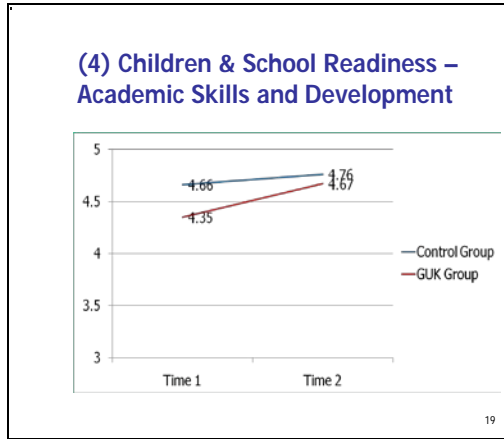
Social skills and development is an area of emphasis specifically targeted by the *Gearing Up for Kindergarten* program. Children have small group interaction, play with peers, and learn social expectations. Parents are also guided on children’s social development. There was minor change in the control group but significant gain in the GUK group.

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When the two groups of pre-kindergarten children were compared regarding average gains in Social Skills/Development over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase 3 times higher than the children in the control group.** Of particular interest is the capacity of the program to assist in closing the “readiness gap” between the two groups of children.

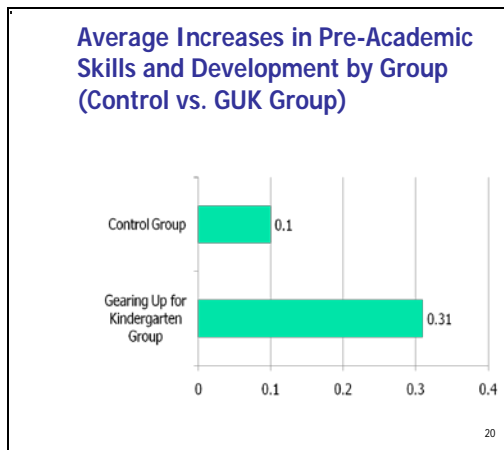
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(4) Academic Skills and Development

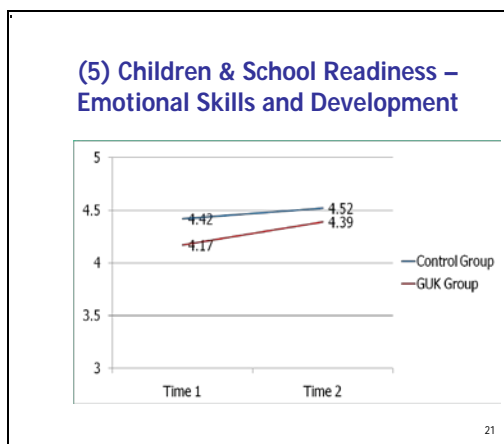
Academic skills and development is another area of emphasis specifically targeted by the program. Children do learning activities and receive basic instruction in math, science, literacy, and other areas. Parents are also guided on teaching children in these areas. There was minor gain in the control group but significant gain in the GUK group.

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When the two groups of pre-kindergarten children were compared regarding average gains in Pre-Academic Skills/Development over a 6-month period, ***children in the Gearing Up for Kindergarten group had an increase 3 times higher than the children in the control group.*** This difference provides solid evidence of the impact the program is having on children and their pre-academic skills.

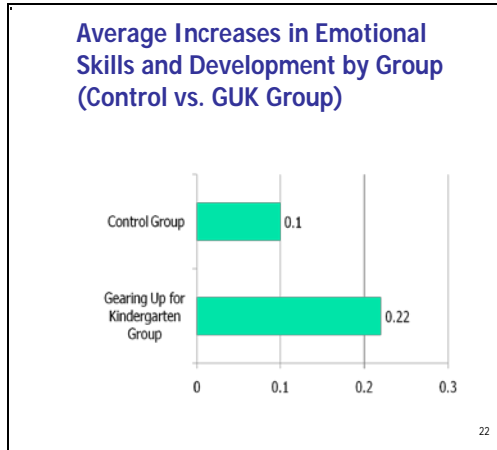
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(5) Emotional Skills and Development

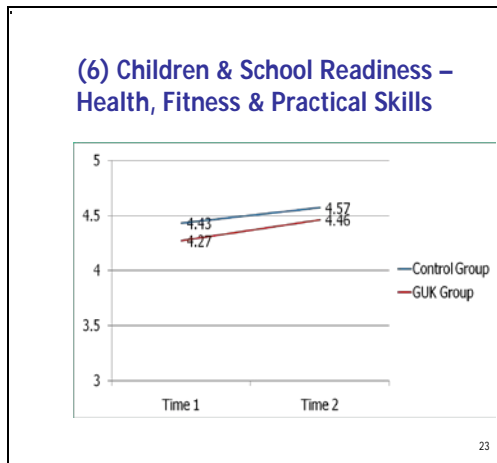
Emotional skills and development is a secondary area of emphasis targeted by the program. Children receive support and parents receive instruction on managing feelings, expressing themselves to others, and being empathetic. Again, there was minor gain in the control group but significant gain in the GUK group

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When the two groups of pre-kindergarten children were compared regarding average gains in Emotional Skills/Development over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase 2 times higher than the children in the control group.** Children in the GUK group made a significant and positive gain in their emotional skills and development.

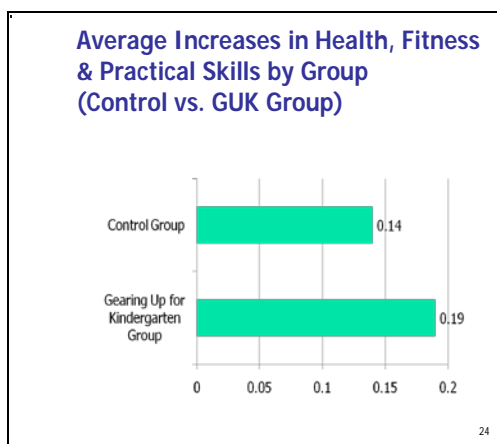
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(6) Health, Fitness and Practical Skills

Areas of practical emphasis such as self-care skills, practical knowledge (family information, etc.), and basic fitness comprise this category. It is not specifically targeted by the program. However, parents and children do receive some support and instruction on such topics. There were positive gains in both groups for this domain of school readiness.

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When the two groups of pre-kindergarten children were compared regarding average gains in Health, Fitness and Practical Skills over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase about 1.3 times higher than the children in the control group.** Since such skills are very important to school entry, it is encouraging to see such gains in both groups.

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Brief Summary

- Control Group parents rated their children higher across all areas to begin with, but program participants had higher gains in each category of school readiness and largely closed the gap in scores by the end of the program.

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In summary, adult participants in the Control Group routinely rated their children higher across all areas to begin, but ***child participants in Gearing Up for Kindergarten had higher gains in each category of school readiness as rated by parents over a 6-month period of time.*** Further detailed analysis will be necessary to clarify program effectiveness and impacts.

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Part 3 - Impacts on Parents – Parental Behavior Findings

- Parents of children in both groups were compared on five aspects of parental behavior:
 - (1) Parent-Child Developmental Interaction
 - (2) Parent Social Guidance
 - (3) Parent Reading Guidance
 - (4) Parent Emotional Guidance
 - (5) Parent Practical Guidance

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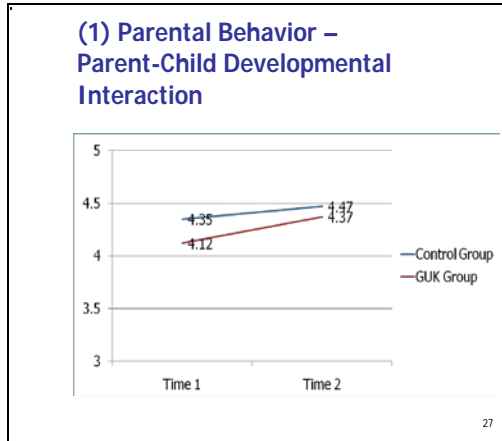
Part 3 – Impacts on Parents – Parental Behavior Findings

The 5 aspects of parental behavior assessed were:

- (1) Parent-Child Developmental Interaction
- (2) Parent Social Guidance
- (3) Parent Reading Guidance
- (4) Parent Emotional Guidance
- (5) Parent Practical Guidance

Adult participants in both the *Gearing Up for Kindergarten* and control groups were assessed on pre- and post-measures 6-7 months apart between fall 2008 and spring 2009. Again, the *fundamental question is whether the program affects the rate of change for one group versus the other.* Parents routinely rate themselves highly on measures of parenting behavior and this was also true in this study.

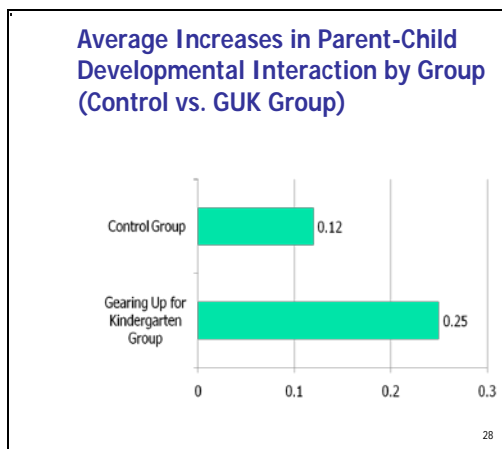
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(1) Parent-Child Developmental Interaction

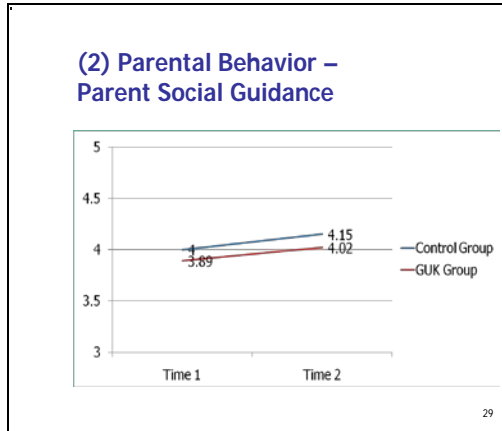
Parent-child developmental interactions, which assist in enhancing children's overall development, were a primary area of behavior targeted by the program. Parents are encouraged to interact with their children in learning activities, given support, and taught positive interaction styles. In this area, there was a minor gain among control group parents and a more significant gain in the GUK group.

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When the two groups of parents were compared regarding average gains in parent-child developmental interactions over a 6-month period, **parents who participated in the Gearing Up for Kindergarten group had an increase 2 times higher than the parents in the control group.** This difference furnishes evidence of the meaningful impact that program participation seems to deliver for parents who are involved. While both groups of parents slightly improved their developmental interactions with pre-kindergarten children, the GUK group had a significantly higher increase than did those who did not participate in the program.

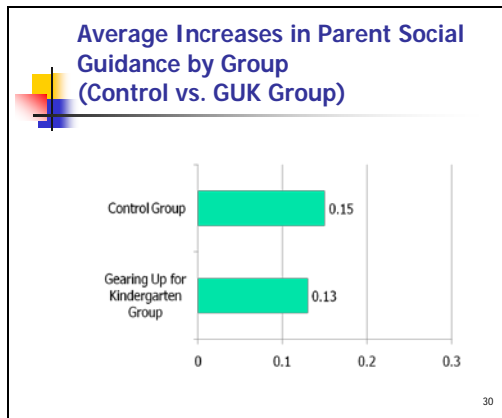
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(2) Parent Social Guidance

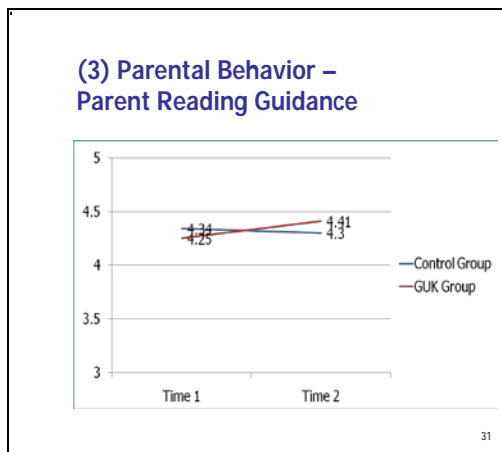
Parental guidance of social skills and development is important for young children. Assisting parents to guide their children in this area is one aspect of parenting which the GUK program addresses. There were minor gains among both parent groups in the study in this category.

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When the two parent groups were compared regarding average gains in parent social guidance over a 6-month period, there were no meaningful group differences between them. The gain scores for both groups were almost identical. Since such guidance is important to young children, it is encouraging to see some modest gains in both groups.

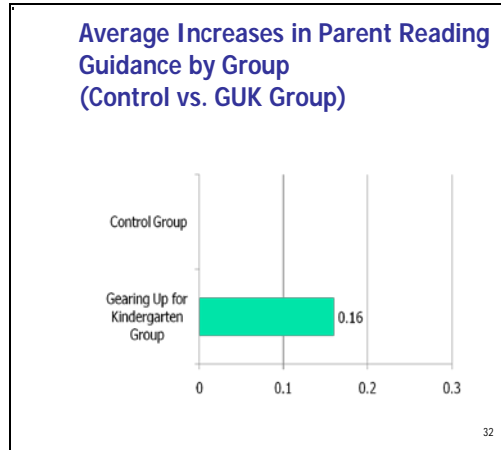
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(3) Parent Reading Guidance

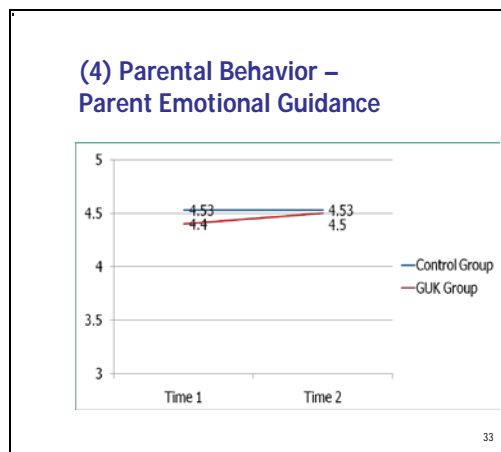
Reading guidance is among the most important aspects of assisting young children in their pre-academic skills development. Both parent groups were assessed in this area, with no meaningful change (a slight drop) occurring for control group parents while GUK parents showed modest improvement in this category. On this measure, GUK parents actually ended higher than control group parents.

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When the two parent groups were compared regarding average gains in parent reading guidance with young children over a 6-month period, **parents who participated in the Gearing Up for Kindergarten group had a positive increase much higher than the parents in the control group, who showed no change.** This difference provides supportive evidence of a meaningful impact through GUK participation on reading with children.

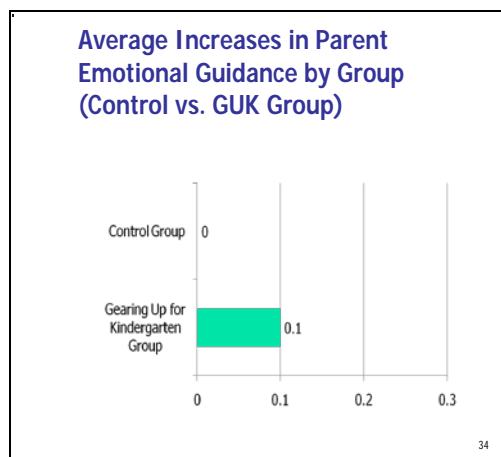
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(4) Parent Emotional Guidance

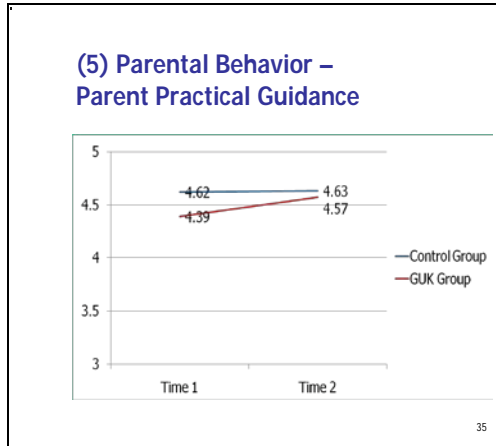
Parental guidance related to emotional skills and development is another vital aspect of assisting young children to prepare for school success. Both parent groups were assessed in this area, again with no change occurring at all for control group parents while GUK parents showed modest improvement in this category. On this measure, GUK parents ended at a similar level to the control group parents.

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The two parent groups were compared regarding average gains in parent emotional guidance with young children over a 6-month period. **Parents who participated in the Gearing Up for Kindergarten group had a positive increase higher than the parents in the control group, who showed no change.** This difference provides more supportive evidence of a meaningful impact on parental behavior through GUK participation.

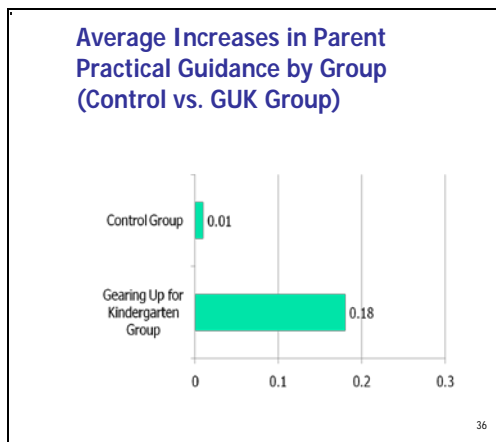
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(5) Parent Practical Guidance

Parental practical guidance refers to assisting young children with conventional knowledge and self-care skills. Children need knowledge of their family name and contact information, how to put their coat or shoes on, and other practical skills. No change occurred at all for control group parents while GUK parents showed positive improvement in this category. The two parent groups were compared regarding average gains in parent practical guidance with young children over a 6-month period. **Parents who participated in the Gearing Up for Kindergarten group had a positive increase much higher than the parents in the control group, who showed no change.** This difference indicates a positive benefit of GUK participation on parental practical guidance for young children.

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Part 4 – Impacts on Parents & Children – School Knowledge and Familiarity Findings

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Part 4 - Impacts on Parents & Children – School Knowledge and Familiarity Findings

- Parents and children in both groups were compared on school knowledge and familiarity, with selected items highlighted.
 - (1) Children – School Knowledge and Familiarity
 - (2) Parents – School Knowledge and Familiarity

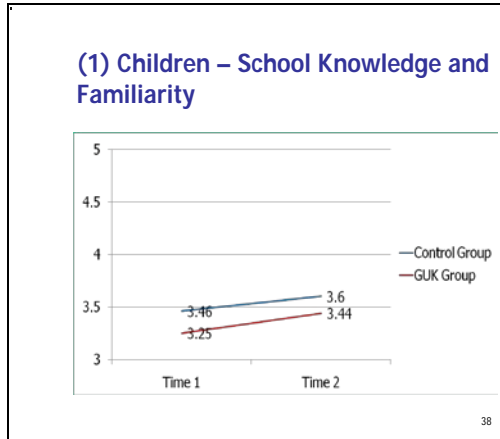
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Key aspects of adjustment for entry into school assessed were:

- (1) Children – School Knowledge and Familiarity
- (2) Parents – School Knowledge and Familiarity

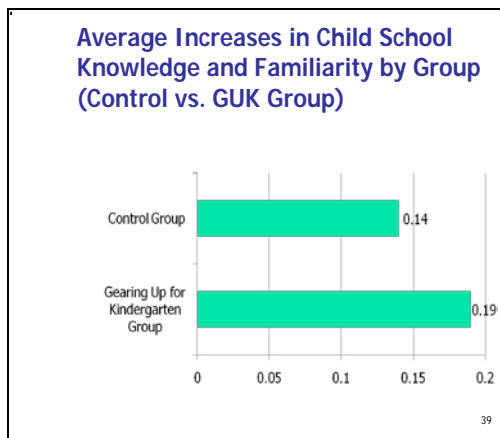
Adult participants in both the *Gearing Up for Kindergarten* and control groups were assessed.

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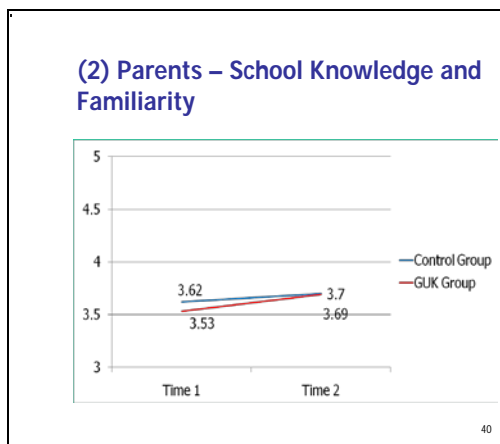
School knowledge and familiarity was an area of focus mentioned frequently by program participants. Due to this interest, pre-kindergarten child school knowledge and familiarity was measured in the control study. This refers to familiarity with school routines, expectations, and environment, as well as comfort with peers and other adults. There were fairly similar changes for children in both groups studied.

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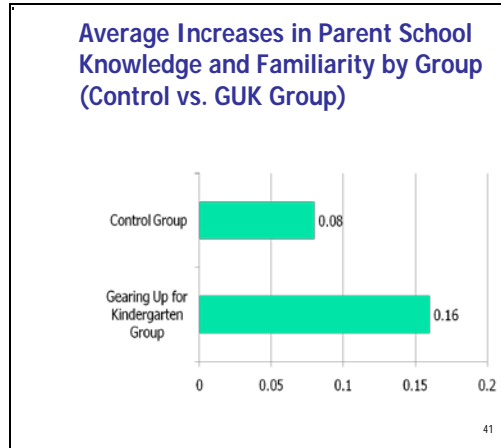
When the two groups of pre-kindergarten children were compared regarding average gains in School Knowledge and Familiarity over a 6-month period, ***children in the Gearing Up for Kindergarten group had an increase about 1.3 times higher than the children in the control group.*** So, both groups had positive increases, with the somewhat higher increase occurring with children in GUK.

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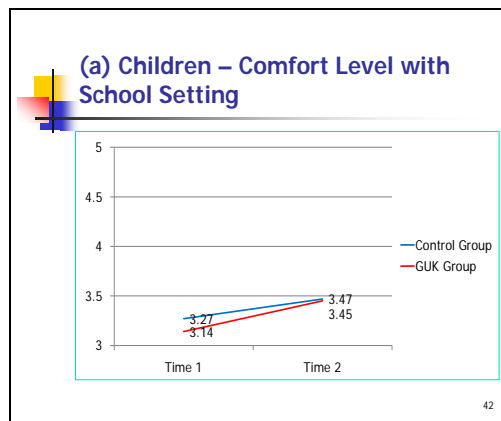
As with children, parents in both groups were also assessed regarding school knowledge and familiarity. Both groups started fairly high on this measure, and there were positive changes in school knowledge and familiarity for both sets of parents in the study. There was no difference in their scores at the second point in time.

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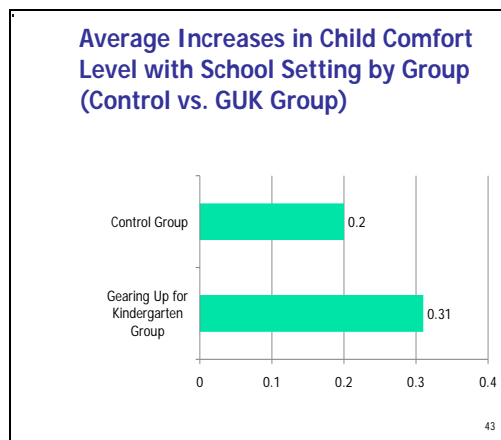
When the control group of parents was compared with the GUK group of parents regarding average gains in School Knowledge and Familiarity over a 6-month period, **parents in the Gearing Up for Kindergarten group had an increase 2 times higher than the children in the control group.** So, both groups had positive increases, but again there was a somewhat higher increase occurring with parents involved in GUK.

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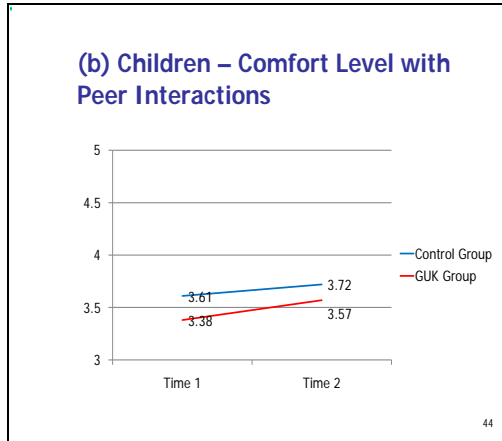
To further assess changes in specific dimensions of school knowledge and familiarity, selected items were compared. One item was comfort level of pre-kindergarten children with the school setting. Both groups of children measured had positive changes on this item, suggesting an increased level of comfort with the school environment as they get closer to entering kindergarten.

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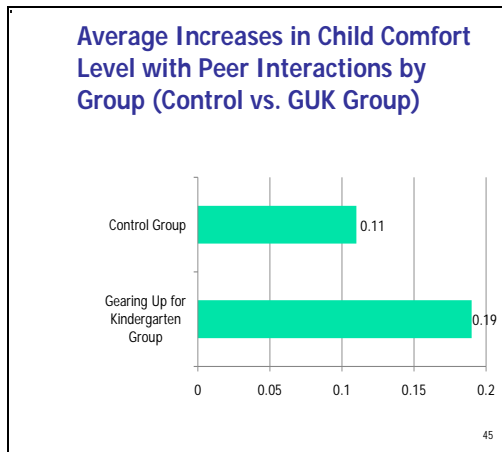
Specifically, when children in the control group were compared with the GUK group of children regarding increases in comfort level with the school setting over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase 1.5 times higher than the children in the control group.** So, both groups had positive increases, but again there was a somewhat higher increase occurring with children attending GUK.

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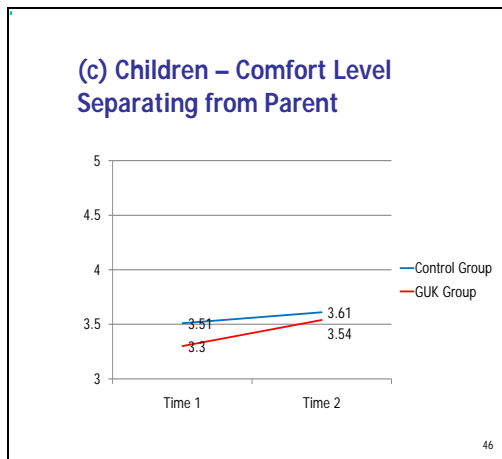
Another item compared between the two groups of children was comfort level with peer interactions. Again, both groups of children measured had positive changes on this item, suggesting increased comfort with peer interactions as they get closer to entering kindergarten. This is important since social readiness is a very important part of a child's overall school readiness in entering kindergarten.

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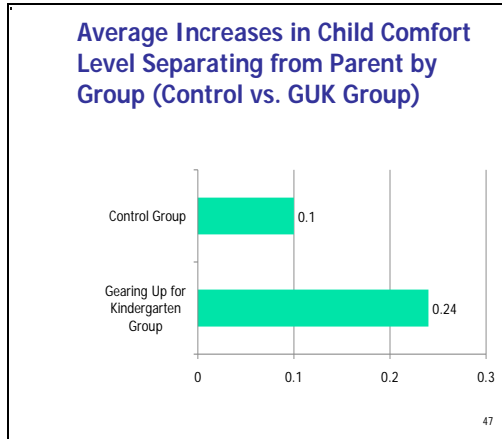
Children in the control group were compared with the GUK children regarding gains in comfort level with peer interactions. After a period of 6 months, **children in the Gearing Up for Kindergarten group had an increase roughly 2 times higher than the children in the control group.** So, both groups had positive increases, but the increase was higher for children attending GUK.

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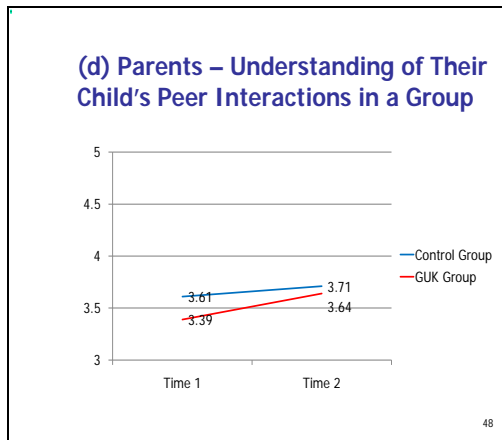
A third item of importance for the school transition that we measured was a child's comfort level in separating from the parent. Difficulty in this area can cause significant anxiety for both pre-kindergarten children and their parents. The two groups of children both had gains in this area during the 6-month period evaluated.

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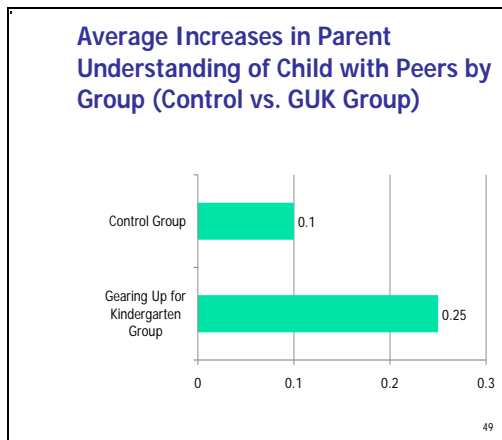
When the two groups of pre-kindergarten children were compared regarding average gains in comfort level separating from a parent, **children in the Gearing Up for Kindergarten group had an increase 2.5 times higher than the children in the control group.** Children in the both groups thus made a significant and positive gain in their comfort level separating from parents, while the gain was more pronounced among the GUK participants.

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Finally, to gain further insight into child social readiness, parental understanding of children’s peer interactions in a group setting was measured. Since parents must make the decision about entry into kindergarten, understanding of this aspect of a child’s social readiness is valuable. Parents in both groups measured had positive gains in their understanding of this item over 6 months.

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As the two groups of parents were compared, the results showed that **adults in the Gearing Up for Kindergarten group had an increase 2.5 times higher than the parents in the control group.** While both groups increased, the gain for parents in the GUK group was substantially higher than for those in the control group who experienced no intervention. Increased parental understanding of how children interact with peers is a useful indicator of how parents are impacted by participation in GUK.

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Part 5 – Selected Comparisons on Key Indicators of School Readiness - Findings

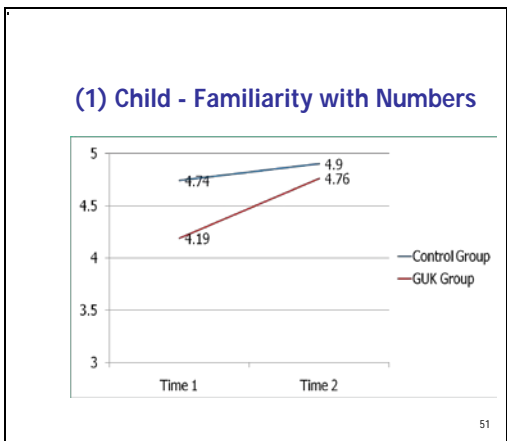
- Pre-Kindergarten Children in both groups were compared on 52 key indicators of school readiness.
- 10 Key Indicators were selected to highlight important contrasts between the Control Group participant children and the Gearing Up for Kindergarten participant children.

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Part 5 – Selected Comparisons on Key Indicators of School Readiness

Pre-kindergarten children in the GUK control group study were assessed by parents on 52 indicators of school readiness in 6 key categories. The 6 key categories have already been discussed. Since there were significant findings across several of the school readiness domains, we selected specific items for comparison that were related to objectives for change specifically targeted by the Gearing Up for Kindergarten program. Ten key indicators of pre-academic skills and social readiness were selected to highlight some of the more important contrasts between children in the Control Group and those children participating in Gearing Up for Kindergarten.

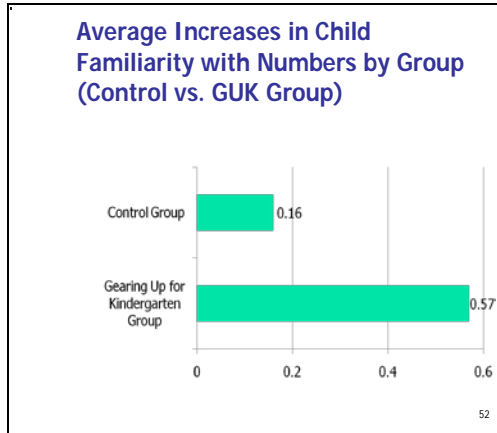
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(1) Child – Familiarity with Numbers

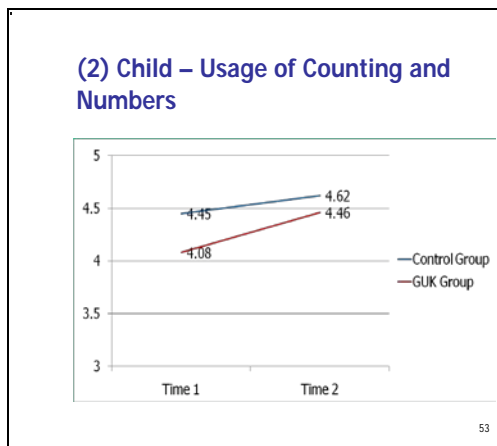
Among the most important pre-academic skills is familiarity with numbers. Mathematical knowledge is important for young children to begin gaining as they enter kindergarten. Both groups of children were assessed on this item. It should be noted that the Control Group started significantly higher than the GUK group to begin with, but that this gap closed to almost nothing by the end of the program.

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When the two groups of pre-kindergarten children were compared regarding average gains in Child – Familiarity with Numbers over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase 4 times higher than the children in the control group.** This large difference provides solid evidence of the impact the program is having on participating pre-kindergarten children in their math-related knowledge.

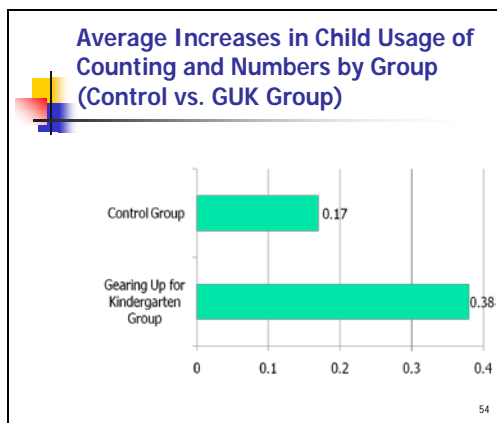
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(2) Child – Usage of Counting and Numbers

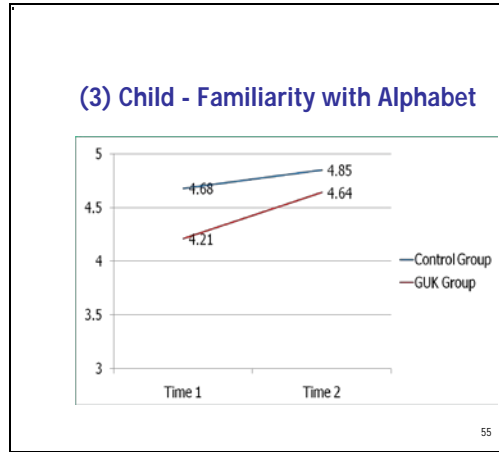
Another important math-related skill is usage of counting and numbers by young children. This item refers not just to child knowledge but behavior. Both groups of children were assessed on this item.

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The comparison of average gains on the item Child – Usage of Counting and Numbers showed a similar pattern. In this comparison, **children in the Gearing Up for Kindergarten group had an increase more than 2 times higher than the children in the control group.** The participation of children in the program seems to boost their gain in the area of math knowledge and skills in a substantive manner, with measurable differences in the average gain between the groups of children.

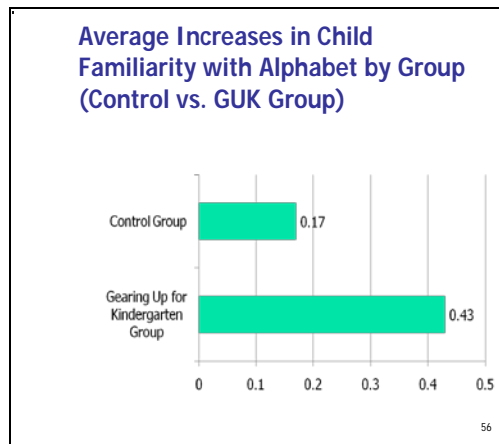
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(3) Child – Familiarity with Alphabet

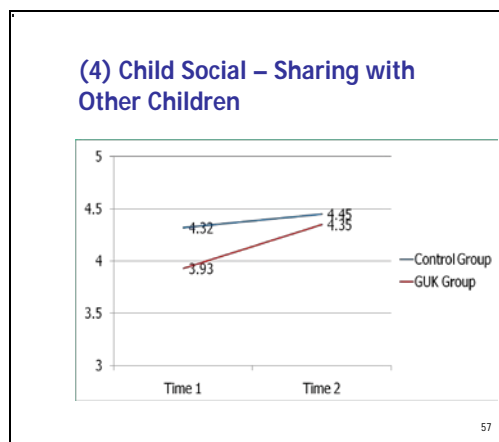
Familiarity with the alphabet is another core aspect of knowledge that is an essential pre-academic skill for children entering kindergarten. This knowledge lays the foundation for further language development, reading and learning in many areas. Both the Control Group children and the GUK group children showed changes over time, as would be expected with children of this age.

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Comparing the groups of pre-kindergarten children over 6 months on average gains in Child – Familiarity with Alphabet, **children in the Gearing Up for Kindergarten group had an increase 2.5 times higher than the children in the control group.** This finding illustrates a positive gain with the GUK group of children showing much greater increases than the control group of children.

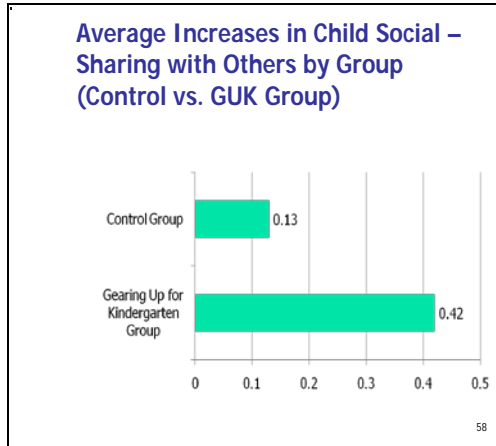
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(4) Child Social – Sharing with Other Children

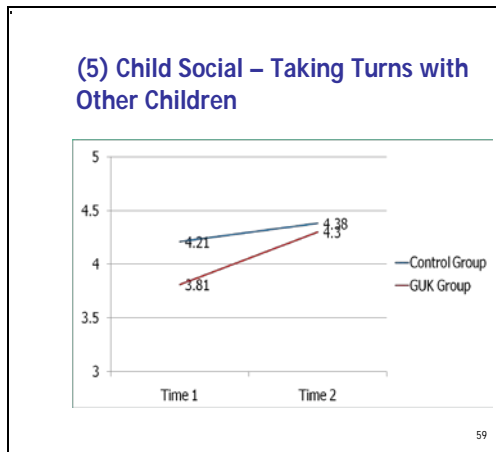
Social knowledge and skills are another important aspect of readiness for children entering kindergarten. One indicator used to measure this area of development was sharing with other children. Children in both groups showed changes in their ability to share with other children over the course of 6 months.

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In comparing the two groups of children on average gains in sharing with others, **children in the Gearing Up for Kindergarten group had an increase 3 times higher than the children in the control group.** The evidence indicates that pre-kindergarten children in GUK make positive and significant gains in this aspect of their social ability as a result of the program.

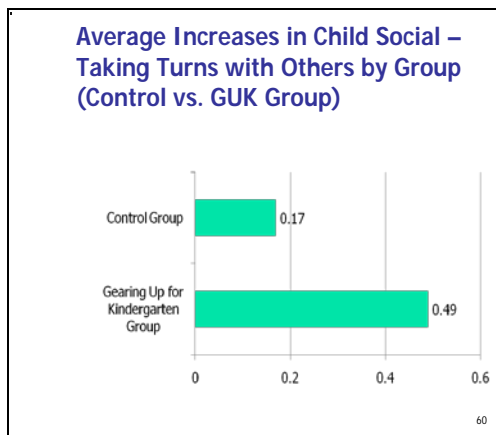
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(5) Child Social – Taking Turns with Other Children

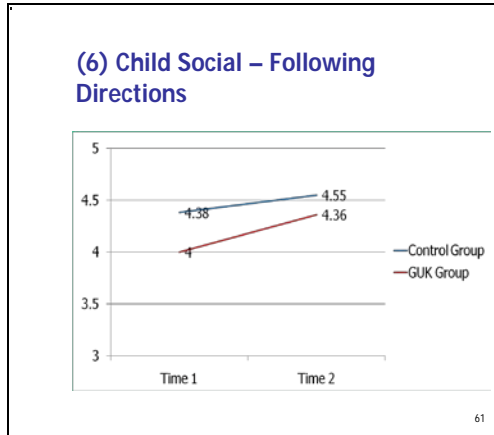
In addition to sharing with others, taking turns with others is another indicator of social knowledge and skills in pre-kindergarten children. As with other indicators, some change was expected and the program findings showed growth in this area for both groups of children being studied.

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A comparison of each group of pre-kindergarten children on average gains in taking turns with others showed that **children in the Gearing Up for Kindergarten group had an increase 3 times higher than the children in the control group.** This finding demonstrated positive support that children in the GUK program are making significant gains that are much higher than those changes shown in the control group, on a key indicator of school readiness in social ability.

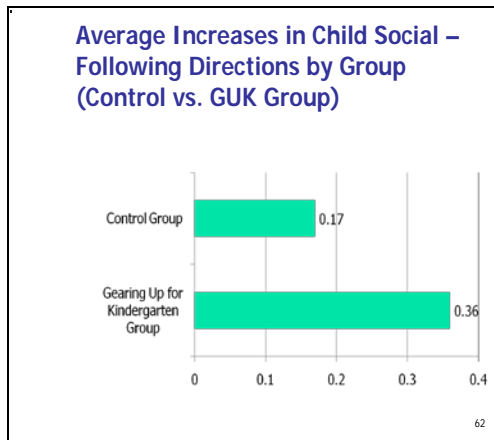
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(6) Child Social – Following Directions

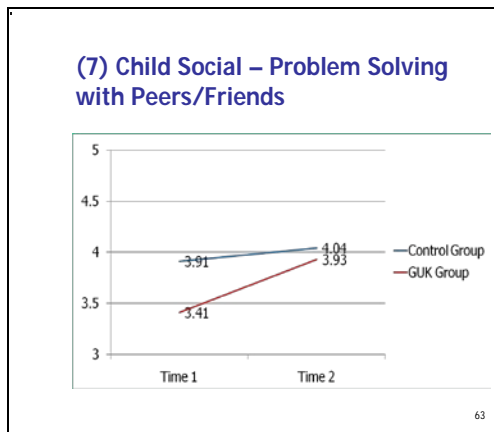
For children in the kindergarten classroom, understanding and following directions in a group setting is a very important skill to develop. Children are in a new environment and they need this ability to adapt comfortably and meet the expectations of the learning environment. Both groups of children were assessed on this indicator of school readiness.

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When the two groups of pre-kindergarten children were compared regarding average gains in ability to follow directions over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase 2 times higher than the children in the control group.** This finding indicates further positive gains in a key area of social readiness for children in the GUK program.

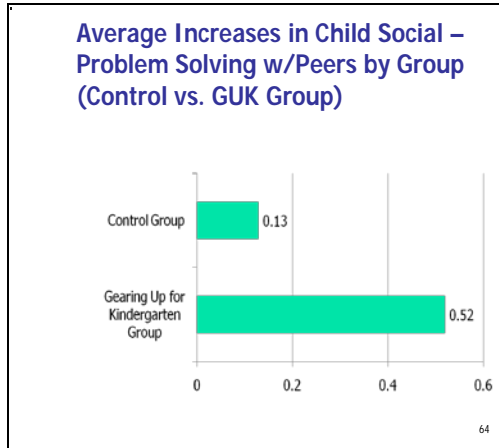
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(7) Child Social – Problem Solving with Peers

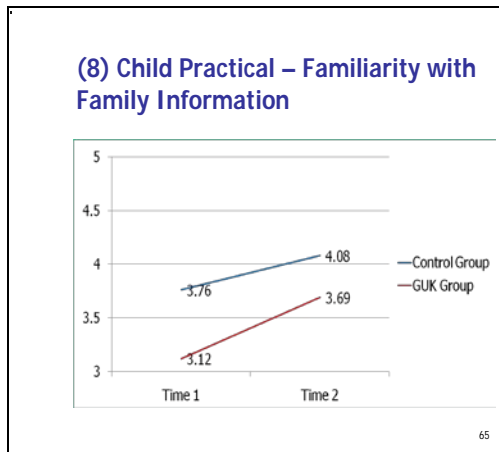
A further key indicator of social readiness for pre-kindergarten children is the ability to work on problem solving in situations with peers or friends. As with other key indicators, children in both the Control Group and the GUK group were assessed on this item. Gains occurred in both groups but there was a substantive difference in the average gains made among children.

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When the two groups of pre-kindergarten children were compared regarding average gains in social problem solving with peers over a 6-month period, **children in the Gearing Up for Kindergarten group had an increase 4 times higher than the children in the control group.** The children in the GUK program showed a much higher rate of gain than children who did not participate in the program.

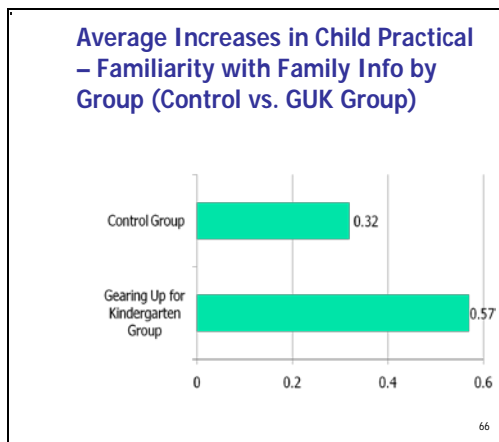
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(8) Child Practical – Familiarity with Family Information

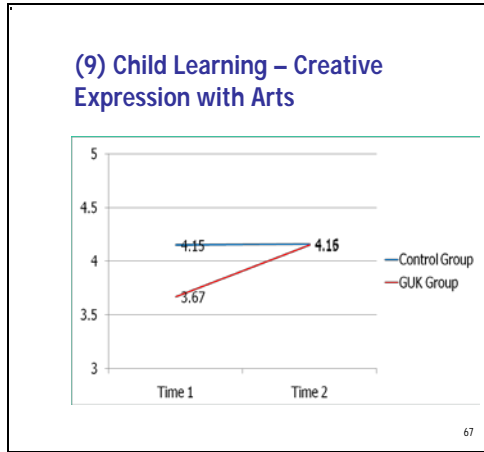
An indicator of a child’s practical knowledge that is of consequence at kindergarten age is familiarity with family information (address, family name, etc.). Both groups of children were measured on this item and there were positive gains in each group over a 6-month period.

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Comparison of the two groups of children over a 6-month period showed that **children in the Gearing Up for Kindergarten group had an increase 2 times higher than the children in the control group regarding familiarity with family information.** Again, the children participating in the GUK program showed a substantial increase much higher than the rate of gain for children who did not participate in the program.

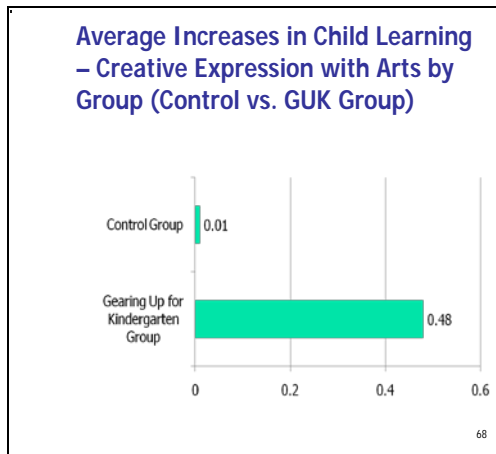
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(9) Child Learning – Creative Expression with Arts

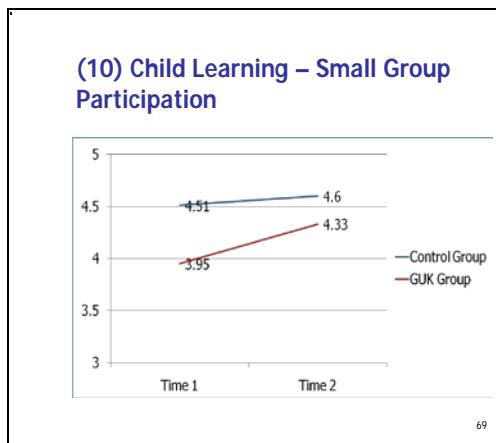
A final key indicator of a child's readiness that was selected for comparison was creative expression using the arts (drawing, painting, etc.). Working with materials, putting concepts together, and expressing ideas through creative arts is a unique and important element of intelligence and ability in pre-kindergarten children. Again, both groups were measured on this indicator item.

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Children in the control group were compared with the GUK children regarding gains in creative expression through the arts. After a period of 6 months, **children in the Gearing Up for Kindergarten group had an increase much higher than the children in the control group.** On this indicator, the children in the control group showed no meaningful change while the children in the GUK group evidenced a significant and positive increase.

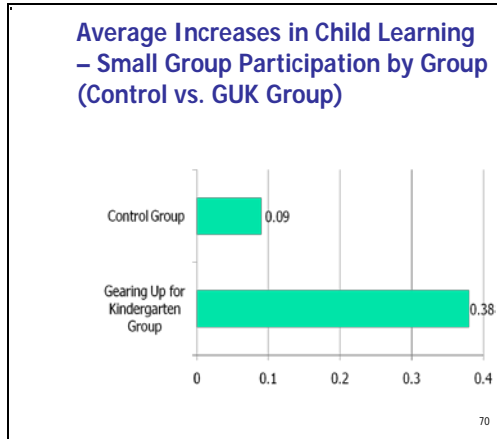
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(10) Child Learning – Small Group Participation

Once children enter kindergarten, an important part of their learning experience is working and learning in a small group context. A child's ability to feel comfortable and participate in a small group setting is another indicator of school readiness. Both groups of children in the study were assessed on this particular indicator.

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In comparing the two groups of children on average gains in small group participation, **children in the Gearing Up for Kindergarten group had an increase 4 times higher than the children in the control group.** The evidence indicates that pre-kindergarten children in GUK make positive and significant gains in their orientation to small group participation and learning as a result of the program.

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School Readiness - Significant Findings

Growth in five primary areas for children in GUK:

- (1) social skills and positive interaction with others;
- (2) ability to function more independently and learn actively in a guided environment;
- (3) development of specific pre-academic skills or knowledge that apply to a school setting (using a pencil, knowing the alphabet, etc.);
- (4) ability to express themselves through art and hands-on creative activities;
- (5) ability to manage emotions and adapt in a new environment.

Summary of Study Findings

The findings of the Gearing Up for Kindergarten Control Group study suggest that there are important differences for participating children and families. For both parents and children, gains range from modest growth to significant improvement on a wide variety of indicators studied. The average gains for parents and children, particularly for children, range from 2 to 5 times higher across most indicators than the gains for those in the Control group.

A thematic summary of the key aspects of growth facilitated by participation in Gearing Up for Kindergarten, for children, suggests that five primary areas of growth are:

- (1) Social skills and positive interactions with others;
- (2) Ability to function more independently and learn actively in

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Qualitative Feedback Themes – Child Benefits

- **Increased Social Confidence and Positive Peer Interactions** – “I have seen more confidence in him in the learning environment and also in being left with others.”
- **Improved Pre-Academic Skills in Reading, Math and Other Subjects** – “She was exposed to a classroom, a teacher, and other children. She learned socialization and improved some of her academic skills. She loves to write numbers now and doesn't get frustrated.”
- **Greater Awareness and Comfort with School Routines and Expectations** – “My child is excited about kindergarten. We believe he has a better understanding of what to expect when he starts school.”

- a guided environment;
- (3) Development of specific pre-academic skills or knowledge that apply to a school setting (using a pencil, knowing the alphabet, etc.)
- (4) Ability to express themselves through art and hands-on creative activities; and
- (5) Ability to manage emotions and adapt in a new environment.

It should be noted that this is not a complete and exhaustive summary of all study findings. Instead, it is a focused summary of key findings that indicate the primary outcomes from a control group study of the Gearing Up for Kindergarten program.

Benefits to Children of the GUK Program

Program participants also provided qualitative feedback on various aspects of the program. This feedback was qualitatively analyzed for key themes. Key themes identified as benefits for children included:

- Increased social confidence and positive peer interactions
- Improved pre-academic skills in reading, math and other subjects
- Greater awareness and comfort with school routines and expectations

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Qualitative Feedback Themes – Parent Benefits

- **More Time and Active Involvement with Children** – “I really enjoyed the homework, the reading material and projects to do with my child. They were a great learning and bonding experience.”
- **Improved Parenting Efforts in Specific Areas** – Sleep, Discipline, Choices, TV Usage, Anger Management, Praise, Nurturing, Everyday Learning
- **Increased Awareness of Child's Specific Needs** – “I am more sensitive to my child's temperament and learning abilities.”

Benefits to Parents of the GUK Program

The qualitative feedback related to benefits for parents identified the following key themes:

- More time and active involvement with children
- Improved parenting efforts in specific areas (TV usage, sleep, discipline, etc.)
- Increased awareness of child's specific needs

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Qualitative Feedback Themes – Program Quality

- **Time Spent Together in Learning Activities with Child** – Reading circle time, parent-child learning activities, at-home learning activities.
- **Preparation of Parent and Child for the Kindergarten Experience** – Familiarity with school classroom, routines, expectations, peers, teachers, etc.
- **Parenting Discussion and Support** – Parent education, parenting knowledge and skills, support and insight from other parents, on-ramp to parent involvement.
- **Quality of the Program Experience** – Structure, planning, organization, child care, instruction, etc.

Feedback on Program Quality

The qualitative feedback related to program quality identified the following key themes as positive aspects of the Gearing Up for Kindergarten program:

- Time spent together in learning activities with the child
- Preparation of parent and child for the kindergarten experience
- Parenting discussion and support
- Overall quality of the program experience

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Further Information

- **Curriculum Outline**
 - Overview and Program Implementation
 - Parent Education Curriculum
 - Preschool Activities Curriculum
- Further program information and ordering curriculum – contact NDSU Extension Service, 701-231-8113 or renee.galster@ndsu.edu (or sean.brotherson@ndsu.edu).

Program Information

The Gearing Up for Kindergarten program may be utilized in a variety of settings to assist pre-kindergarten children and their families in preparing to enter school and achieve success. The curriculum materials include:

- Overview and program implementation guide
- Parent education curriculum
- Preschool activities curriculum

Information about the program can be obtained through contacting the NDSU Extension Service (see contact information at left).

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