

*Hamilton City*  
*Pre-Kindergarten Summer Program*  
*Summative Report*

**Prepared by:**



**September 2005**

## Report Overview

This report is presented in two sections:

1. A descriptive portrayal of families and youth ages four years and nine months to five years and eight months participating in the *Pre-Kindergarten Summer Program*. The descriptive portrayal is based upon data from an intake questionnaire completed by parents, and a teacher completed standardized assessment of youth, The Devereux Early Childhood Assessment (DECA).
2. Utilizing the *BRIGANCE K and 1 Screen*, outcome data is presented on youth that had both a point of entry (Time 1) assessment and a point of exit (Time 2) assessment<sup>1</sup>. Outcomes are presented for all youth, ages four years and nine months to five years and eight months; for youth four years and nine months to five years and two months; and for youth five years and three months to five years and eight months – the range of ages measured by the *BRIGANCE K and 1 Screen*.

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<sup>1</sup> The number of days between point of entry (Time 1) assessment and point of exit (Time 2) was typically 17 days.

# Descriptive Portrayal of Families and Participating Youth

Utilizing an intake questionnaire completed by parents of participating *Pre-Kindergarten Summer Program* youth, ages four years and nine months to five years and eight months, and a teacher completed standardized assessment of youth, The Devereux Early Childhood Assessment (DECA), this section presents a descriptive profile of families and youth participating in the summer program.

### Intake Questionnaire

There were 15 parents that could be matched to 17 of the youth, ages four years and nine months to five years and eight months, that completed the summer program. Of these 15 parents...

- ❖ The majority reported that they were *female* – 80.0 percent (N=15).
- ❖ All (100.0%) reported to have resided in *Hamilton City* (N=14).
- ❖ Approximately 87 percent (86.7%) reported that they had only one child participating in the summer program. Of the two parents that reported having more than one child between the ages four years and nine months to five years and eight months participating in the program, both reported having two children participating in the program (N=15).
- ❖ Approximately 93 percent (92.9%) reported they were *married*. One (1) parent reported her or his status as *single* (N=14).
- ❖ Greater than 70 percent (73.3%) of parents reported that the primary language spoken in their home was *Spanish only*, with an equal percentage – 13.3 percent – reporting that the primary language spoken in their home was *English only*, or both *English and Spanish* (N=15).
- ❖ Approximately 87 percent (86.6%) of parents reported that their child(ren) had attended nursery school, preschool, pre-kindergarten, Head Start, or a child care center on a regular basis – i.e., at least twice a week for at least six months – since the child(ren)'s third birthday (N=15).
- ❖ All but one of the parents (93.3%) reported that a doctor or counselor HAD NOT told them that their child(ren) was developmentally delayed. One parent reported that her or his child(ren) HAD NEVER been seen by a doctor or counselor (N=15).
- ❖ None (0.0%) of the parents reported that they were concerned with their child(ren)'s development or behavior (N=14).
- ❖ The majority (86.7%) of parents reported singing songs, reading or talking about pictures, or telling stories to their children at least *once or twice a week* (N=15).

## The Devereux Early Childhood Assessment (DECA)

The DECA is a standardized, norm-referenced behavior rating scale, ideally completed by a teacher and the parent of the child, that measures resilience in preschool children ages two and five. Resilience is defined as the ability to recover from or adjust easily to misfortune or change. It is an assessment instrument designed to support young children's social and emotional development, and to enhance the overall quality of early childhood programs. The DECA is comprised of the 37 items (questions). Each item is categorized into one of four subscales: 1) *Initiative*; 2) *Self-Control*; 3) *Attachment*; and 4) *Behavioral Concerns*. The scores of the subscales *Initiative*, *Self-Control*, and *Attachment* can further be added and divided by three (to average) to create the scale, *Total Protective Factors*. A brief over of each of the scales is presented below:

- ❖ *Initiative*: The items in this subscale measure the child's ability to use independent thought and action to meet her or his needs. Children that receive above average scores in this subscale are often independent and active learners who will start or organize activities with other children. Children receiving above average scores in the *Initiative* subscale also tend to be positive, optimistic children that are good problem-solvers.
- ❖ *Self-Control*: The items in this subscale assess the child's ability to experience a range of feelings, and expression of feelings using the words and actions that society considers appropriate. Children that receive above average ratings on this scale are generally able to handle frustration and negative emotions without acting out. These children also tend to be cooperative, patient, and respectful of others, and are able to share well. They additionally are often able to calm themselves down and recover quickly when upset.
- ❖ *Attachment*: The items on this subscale measure the mutual, strong, and long-lasting relationship between a child and significant adults such as parent(s), family members, and teachers. Children that receive above average scores in the *Attachment* subscale often actively seek out adults and other children, and tend to be effective in gaining positive attention from others. These children also tend to be affectionate, and respond to adults comforting them when they are upset.
- ❖ *Total Protective Factors (Initiative + Self-control + Attachment/3)*: This scale gives an overall indication of the child's strength related to resiliency.
- ❖ *Behavioral Concerns*: The items on this subscale measure a variety of problem or challenging behaviors. The behaviors measured on this subscale are typical of children that have problems with aggression, withdrawal, attention, and extreme emotions. Above average scores in the *Behavioral Concerns* subscale are unusual and should trigger further assessment of possible problems and the development of a positive behavioral guidance plan.

Scores for each of these scales are reported as T-scores. The T-score describes the level of a child's rating in comparison to the other children's ratings. On the DECA, T-scores range from 30 to 70. The interpretation of T-scores for each of the scales is presented below.

For the scales of *Initiative*, *Self-Control*, *Attachment*, and *Total Protective Factors*, T-score interpretations are as follows:

<u>Level of T-Scores</u>	<u>Interpretation</u>
30 to 40	= Below Average (where below average scores suggest a child that is "at-risk")
41 to 59	= Average
60 to 70	= Above Average (where above average scores suggest a child has "strengths")

For the scale of *Behavioral Concerns* T-score interpretations are as follows:

<i>Level of T-Scores</i>	<i>Interpretation</i>
30 to 40	= <i>Below Average (where below average scores suggest a child has “strengths”)</i>
41 to 59	= <i>Average</i>
60 to 70	= <i>Above Average (where above average scores suggest a child is “at-risk”)</i>

Mean T-scores and standard deviations, and interpretation of mean T-scores for each of the scales for the 22 youth ages four years and nine months to five years and eight months having a DECA completed by a teacher are presented in Table 1.

**Table 1: DECA Mean T-Scores**

<b>Scale</b>	<b>Mean T-Score</b>	<b>Standard Deviation<sup>2</sup></b>	<b>Interpretation of Mean T-Score</b>
<i>Initiative</i>	55.45	5.41	<i>Average</i>
<i>Self-Control</i>	55.95	6.29	<i>Average</i>
<i>Attachment</i>	50.50	5.29	<i>Average</i>
<i>Total Protective Factors</i>	53.23	7.41	<i>Average</i>
<i>Behavioral Concerns</i>	40.64	12.25	<i>Below Average (where below average scores suggest a child has “strengths”) to Average Range</i>

The percentage of youth for each of the scales by level of T-scores is presented in Table 2.

**Table 2: Percentage of Youth by Levels of T-Scores**

<b>Scale</b>	<b>30 to 40 Percentage</b>	<b>41 to 59 Percentage</b>	<b>60 to 70 Percentage</b>	<b>TOTAL PERCENTAGE</b>
<i>Initiative</i>	0.0%	81.8%	18.2%	100.0%
<i>Self-Control</i>	0.0%	86.4%	13.6%	100.0%
<i>Attachment</i>	4.5%	90.9%	4.5%	100.0%
<i>Total Protective Factors</i>	4.5%	81.8%	13.6%	100.0%
<i>Behavioral Concerns</i>	50.0%	45.5%	4.5%	100.0%

<sup>2</sup> Standard deviations (SD) are used to account for the relative dispersion of scores from the mean. The lower the standard deviation, the closer individual scores are to the mean, and hence greater agreement among respondents.

# Youth Outcomes

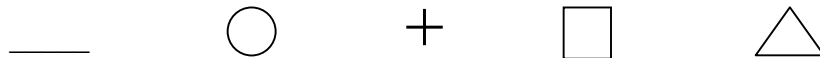
## BRIGANCE K AND 1 SCREEN: Point of Entry and Point of Exit

Skills and competencies for children between the ages of four years and nine months and five years and eight months (N=23) at point of entry into the program (Time 1) and point of exit (Time 2), were measured by the *K and 1 BRIGANCE Screen*. *BRIGANCE Screens* are useful in identifying developmental problems in children, as well as identifying academic talent or intellectual giftedness. Skills and competencies assessed using the *K and 1 BRIGANCE Screen* includes the following:

- ❖ *Personal Data Response* – Assesses if the child can verbally give one or more of the following: first name, full name, age, address (street or mailing), and birth date (month and day)
- ❖ *Color Recognition* – Assesses if the child can identify and name one or more of the following colors: red, blue, green, yellow, orange, purple, brown, black, pink, and gray
- ❖ *Picture Vocabulary* – Assesses if the child recognizes and names picture of the following: dog, cat, key, girl, boy, airplane, apple, leaf, cup, and car
- ❖ *Visual Discrimination* – Assesses if the child visually discriminates one or more of the following forms and upper case letters:



- ❖ *Visual-Motor Skills* – Assesses if the child can copy one or more of the following shapes:



- ❖ *Gross-Motor Skills* – Assesses if the child can perform any of the following gross-motor skills: 1) Hops two hops on one foot; 2) Hops two hops on other foot; 3) Stands on one foot momentarily; 4) Stands on other foot momentarily; 5) Stands on one foot for five seconds; 6) Stands on other foot for five seconds; 7) Walks forward heel-to-toe four steps; 8) walks backward toe-to-heel four steps; 9) Stands on one foot momentarily with eyes closed; 10) Stands on other foot momentarily with eyes closed
- ❖ *Rote Counting* – Assesses how high a child can count on a scale from one to ten
- ❖ *Identifies Body Parts* – Assesses if the child can identify, by pointing to or touching, the following body parts: chin, fingernails, heels, ankles, jaw, shoulders, elbows, hips, wrists, and waist
- ❖ *Follows Verbal Directions* – Assesses how well the child listens to, remembers, and follows directions
- ❖ *Numeral Comprehension* – Assesses if the child can identify the quantity of a numerical representation, e.g., fingers or objects, from the choices on the *BRIGANCE* screen
- ❖ *Prints Personal Data* – Assesses if the child print their name, and if they can, evaluates if any of the letters are reversed
- ❖ *Syntax and Fluency* – Assesses if the child can speak in complete sentences with speech that can be understood

### **K and 1 BRIGANCE Mean Scores at Time 1 and Time 2**

There were increases in *K and 1 BRIGANCE* mean scores in nine (9) of the 12 skill and competency categories, and in the *TOTAL SCORE* between points in time. The paired-samples t-test found that were statistically significant<sup>3</sup> increases in mean scores between Time 1 and Time 2 in the skill and competency categories of *Color Recognition* ( $t(22) = -2.96, p < .01$ ), *Gross-Motor Skills* ( $t(22) = -2.82, p < .05$ ), *Identifies Body Parts* ( $t(22) = -2.23, p < .05$ ), *Follows Verbal Directions* ( $t(22) = -2.15, p < .05$ ), and *TOTAL SCORES* ( $t(22) = -3.01, p < .01$ ). *K and 1 BRIGANCE* mean scores and standard deviations at Time 1 and Time 2 for the 23 youth are presented in Table 3 for each of the skills and competencies.

**Table 3: K and 1 BRIGANCE Mean Scores at Time 1 and Time 2**

<b>Skills and Competencies</b>	<b>Total Possible Points</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>
Personal Data Response	10	7.78	2.89	7.61	3.09
Color Recognition	10	6.83	2.81	7.65	2.37
Picture Vocabulary	10	6.00	3.34	6.87	3.67
Visual Discrimination	10	7.57	2.25	8.00	1.81
Visual-Motor Skills	10	4.43	1.70	4.87	1.69
Gross-Motor Skills	10	7.96	1.85	8.78	1.54
Rote Counting	5	4.26	2.97	4.87	2.47
Identifies Body Parts	5	1.22	1.25	1.70	1.22
Follows Verbal Directions	5	4.35	1.35	4.78	.72
Numerical Comprehension	10	6.17	3.56	6.00	4.22
Prints Personal Data	5	3.70	2.24	3.26	2.43
Syntax and Fluency	10	8.70	2.24	9.35	1.72
<b>TOTAL SCORE</b>	<b>100</b>	<b>68.89</b>	<b>19.69</b>	<b>73.15</b>	<b>18.53</b>

<sup>3</sup> A finding is described as statistically significant, when it can be demonstrated that the probability of obtaining such a difference by chance only, is relatively low. For researcher/evaluators, it is customary to describe one's finding as statistically significant, when the obtained results is among those (theoretically) would occur at least 95 out of 100 times ( $p < .05$ ).

### Change in K and 1 BRIGANCE Mean Scores

The percentage of change in mean scores for the 23 youth in each of the skills and competencies and the *TOTAL SCORE* on the *K and 1 BRIGANCE Screen* are presented in Figure 1 below.

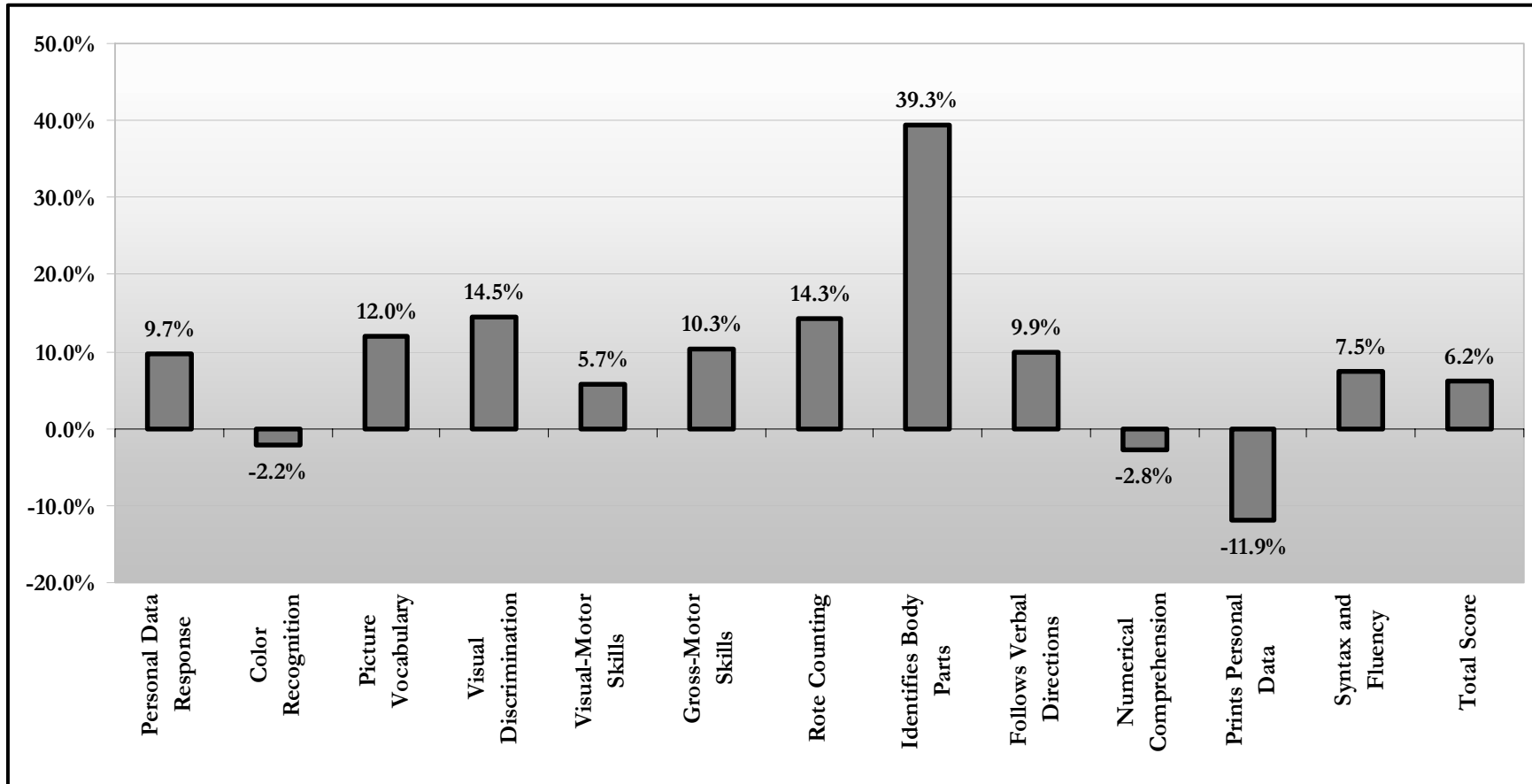


Figure 1: Percentage of Change in *K and 1 BRIGANCE* Mean Scores Between Time 1 and Time 2

**Shared Skills and Competencies**

To assess what skills and competencies youth appear to have in common, each of the responses within each skill and competency category of which at least 75 percent of the youth ages four years and nine months and five years and eight months correctly identified are shaded in gray. This analysis is presented in Table 4.

**Table 4: Time 1 and Time 2 BRIGANCE K and 1 Correct Responses**





Skills and Competencies – Time 1	Skills and Competencies – Time 2
<i>Unanimity of at least 75% of the youth among correct/appropriate responses for each item are shaded gray</i>	<i>Unanimity of at least 75% of the youth among correct/appropriate responses for each item are shaded gray</i>
<b>Personal Data Response:</b> <i>verbally gives</i>	<b>Personal Data Response:</b> <i>verbally gives</i>
first name full name age address(street or mailing) birth date(month & day)	first name full name age address(street or mailing) birth date(month & day)
<b>Color Recognition:</b> <i>identifies and names</i>	<b>Color Recognition:</b> <i>identifies and names</i>
red blue green yellow orange purple brown black pink gray	red blue green yellow orange purple brown black pink gray
<b>Picture Vocabulary:</b> <i>recognizes and names pictures of</i>	<b>Picture Vocabulary:</b> <i>recognizes and names pictures of</i>
dog cat key girl boy airplane apple leaf cup car	dog cat key girl boy airplane apple leaf cup car
<b>Visual Discrimination – Forms and Upper Case Letters:</b> <i>visually discriminates symbols</i>	<b>Visual Discrimination – Forms and Upper Case Letters:</b> <i>visually discriminates symbols</i>
	
<b>Visual-Motor Skills:</b> <i>copies</i>	<b>Visual-Motor Skills:</b> <i>copies</i>
	

Table 4: Time 1 and Time 2 BRIGANCE K and 1 Correct Responses continued

<p style="text-align: center;">Skills and Competencies – Time 1</p> <p><i>Unanimity of at least 75% of the youth among correct/appropriate responses for each item are shaded gray</i></p>	<p style="text-align: center;">Skills and Competencies – Time 2</p> <p><i>Unanimity of at least 75% of the youth among correct/appropriate responses for each item are shaded gray</i></p>
<p><b>Gross-Motor Skills:</b></p> <p>1. Hops two hops on one foot</p> <p>2. Hops two hops on other foot</p> <p>3. Stands on one foot momentarily</p> <p>4. Stands on other foot momentarily</p> <p>5. Stands on one foot for five seconds</p> <p>6. Stands on other foot for five seconds</p> <p>7. Walks forward heel-to-toe four steps</p> <p>8. Walks backward toe-to-heel four steps</p> <p>9. Stands on one foot momentarily with eyes closed</p> <p>10. Stands on one foot momentarily with eyes closed</p>	<p><b>Gross-Motor Skills:</b></p> <p>1. Hops two hops on one foot</p> <p>2. Hops two hops on other foot</p> <p>3. Stands on one foot momentarily</p> <p>4. Stands on other foot momentarily</p> <p>5. Stands on one foot for five seconds</p> <p>6. Stands on other foot for five seconds</p> <p>7. Walks forward heel-to-toe four steps</p> <p>8. Walks backward toe-to-heel four steps</p> <p>9. Stands on one foot momentarily with eyes closed</p> <p>10. Stands on one foot momentarily with eyes closed</p>
<p><b>Rote Counting:</b> <i>counts by rote to</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p><b>Rote Counting:</b> <i>counts by rote to</i></p> <p>1 2 3 4 5 6 7 8 9 10</p>
<p><b>Identifies Body Parts:</b> <i>identifies by pointing to or touching</i></p> <p>1. chin            3. heels            5. jaw            7. elbows            9. wrists</p> <p>2. fingernails    4. ankles            6. shoulders    8. hips            10. waist</p>	<p><b>Identifies Body Parts:</b> <i>identifies by pointing to or touching</i></p> <p>1. chin            3. heels            5. jaw            7. elbows            9. wrists</p> <p>2. fingernails    4. ankles            6. shoulders    8. hips            10. waist</p>
<p><b>Follows Verbal Directions:</b> <i>listens to, remembers, and follows</i></p> <p>one step direction            two step direction</p>	<p><b>Follows Verbal Directions:</b> <i>listens to, remembers, and follows</i></p> <p>one step direction            two step direction</p>
<p><b>Numeral Comprehension:</b> <i>matches quantity with numerals</i></p> <p>2   1   4   3   5</p>	<p><b>Numeral Comprehension:</b> <i>matches quantity with numerals</i></p> <p>2   1   4   3   5</p>
<p><b>Prints Personal Data:</b></p> <p>prints first name    <math>\xrightarrow{N=17}</math> Any letters reversed?    Yes: 35.3%</p>	<p><b>Prints Personal Data:</b></p> <p>prints first name</p>
<p><b>Syntax and Fluency:</b></p> <p>speech is understandable            speaks in complete sentences</p>	<p><b>Syntax and Fluency:</b></p> <p>speech is understandable            speaks in complete sentences</p>

## Association Between Skill and Competency Categories

This section reports on the strength of the relationships between pairs of skill and competency categories, based on direction of mean scores between points in time. Utilizing a bivariate correlational analysis, we are able to assess the degree to which one category may influence another. For example, do increases in the skill and competency category *personal data response* influence the scores in the category *rote counting*? If this is probable, the categories will be associated at a statistically significant level of  $p < .05$ .

Correlations range from zero (0) – no correlation – to one (1) – “perfectly” correlated. The closer the correlation is to one (1), the stronger the association. The following matrix provides an overview of the generally accepted ranges for correlations and their strength of association.

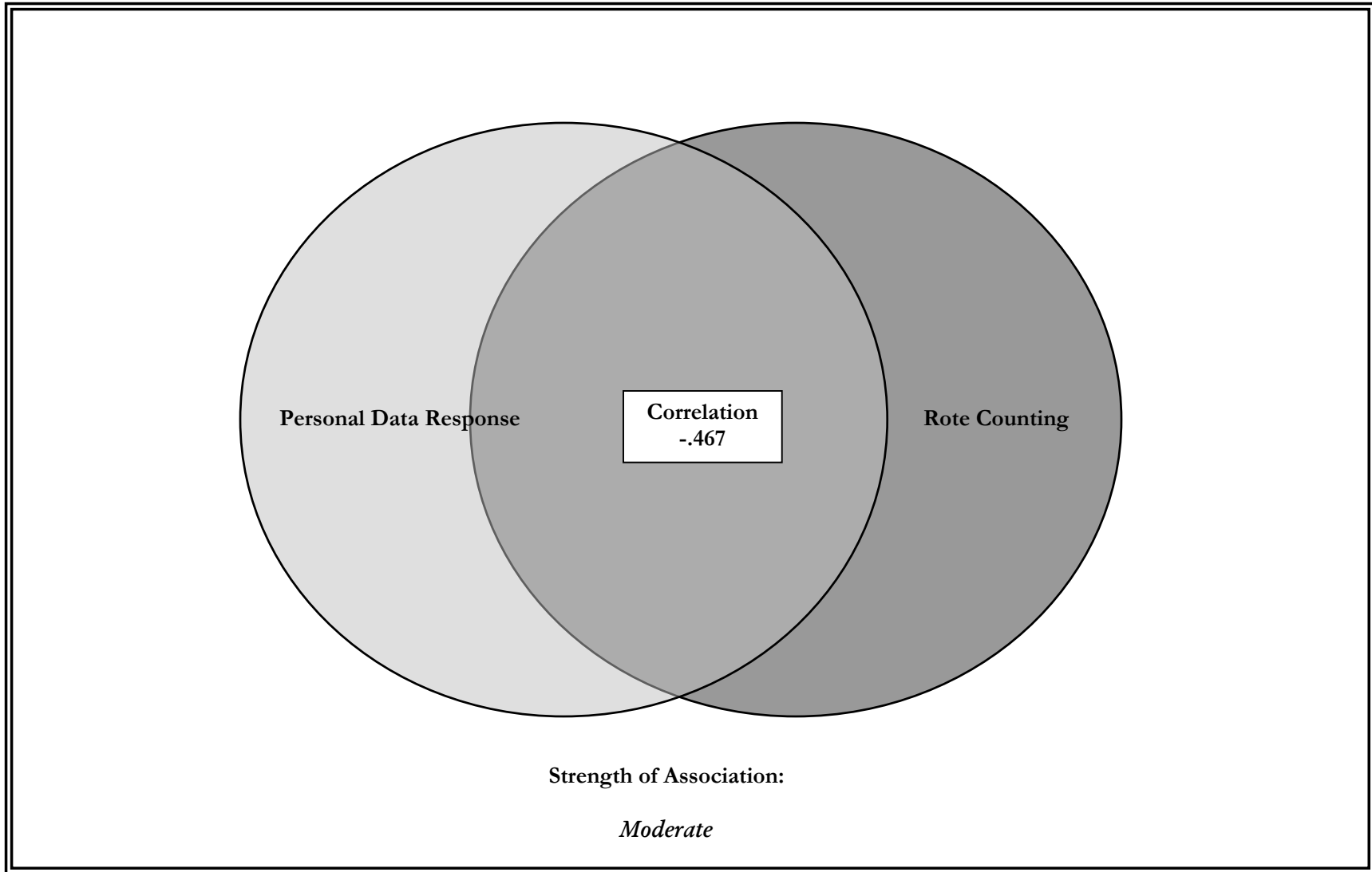
Range	Strength of Association
.000 to .200	Very Weak
.200 to .400	Weak
.400 to .700	Moderate
.700 to .900	Strong
.900 to 1.000	Very Strong

Correlations are either positive or negative; the latter does not suggest an adverse finding, but simply that category scores are moving in opposite directions. Using the skill and competency categories above, in a positive correlation, as *personal data response* scores increases, so, too, the scores increase in the *rote counting* category. In a negative correlation, as *personal data response* scores increase, *rote counting* scores decrease.

Example: In a statistically significant negative association (-.467) between decreased *personal data response* scores and increased *rote counting* scores, we can suggest that there is a *moderate* association between the variation of *personal data response* scores and *rote counting* scores, (see figure on the next page).

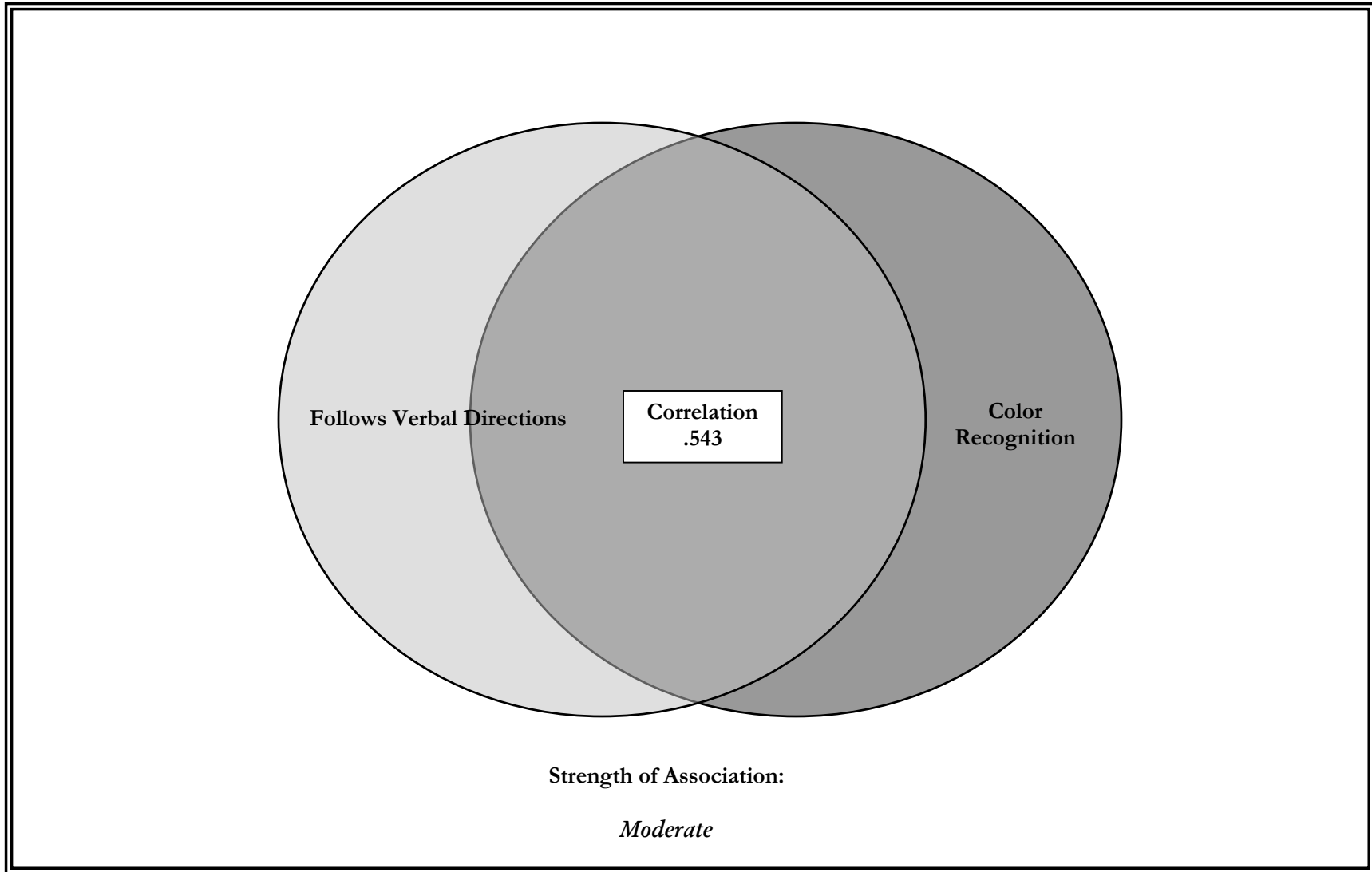
Figure 2 to Figure 4 present each association among categories that was found to be statistically significant. Each figure is complete with an analysis and graphical representation of the association.

*Analysis for Figure 2: A statistically significant negative correlation between decreased personal data response scores and increased rote counting scores (-.467), suggesting a *moderate* association between categories.*



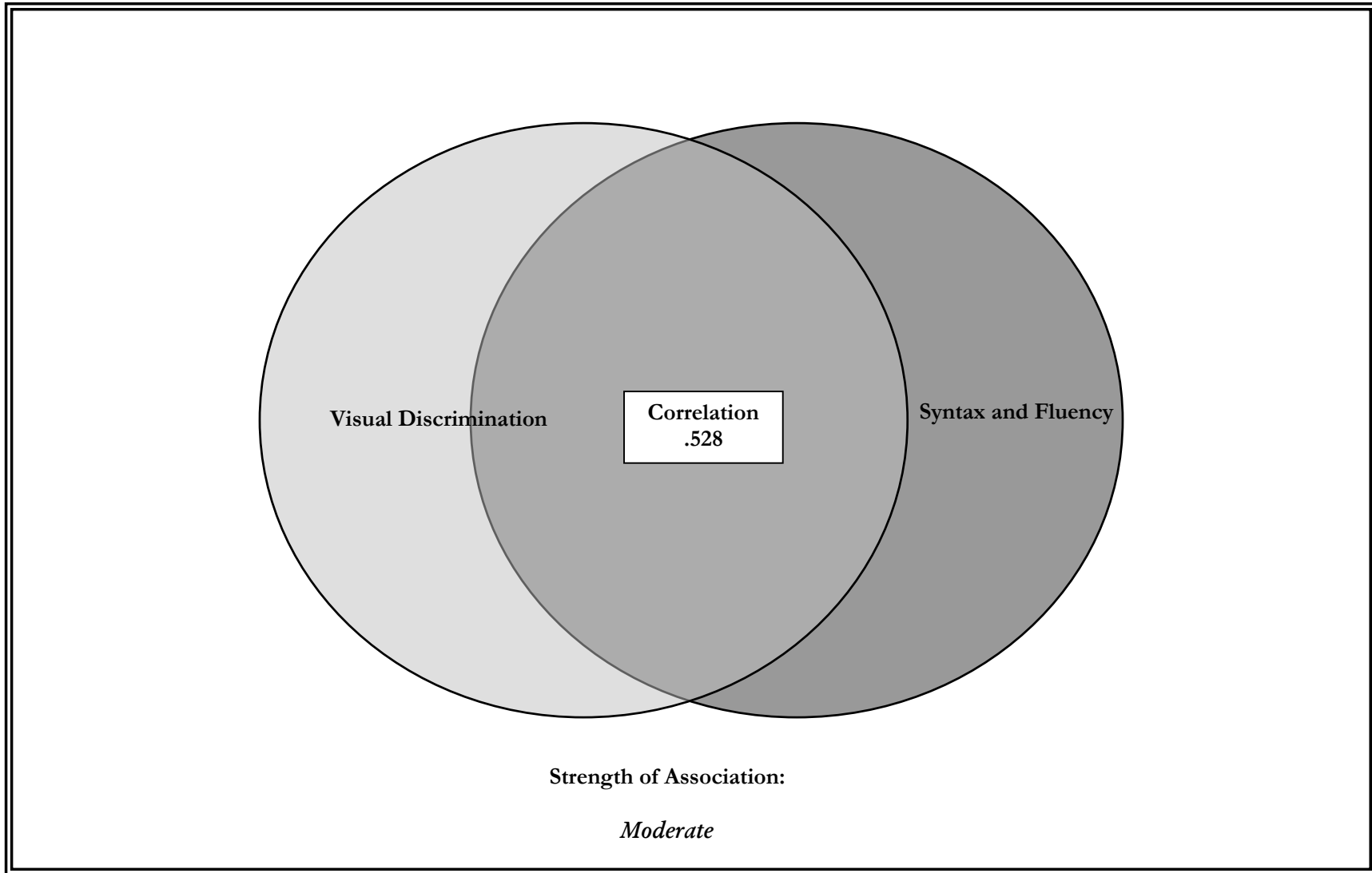
*Figure 2: Association Between Personal Data Response and Rote Counting*

*Analysis for Figure 3:* A statistically significant positive correlation between increased *follows verbal direction* scores and increased *color recognition* scores (.543), suggesting a *moderate* association between categories.



*Figure 3:* Association Between Follows *Verbal Directions* and *Color Recognition*

*Analysis for Figure 4:* A statistically significant positive correlation between increased *visual discrimination* scores and increased *syntax and fluency* scores (.528), suggesting a *moderate* association between categories.




*Figure 4:* Association Between *Visual Discrimination* and *Syntax and Fluency*

**K and 1 BRIGANCE Mean Scores at Time 1 and Time 2: Youth Four Years and Nine Months to Five Years and Two Months**

There were increases in *K and 1 BRIGANCE* mean scores in 10 of the 12 skill and competency categories and in the *TOTAL SCORE* between points in time for the youth for this age grouping. *TOTAL SCORE* mean scores at both points in time, however, were below the cut-off score for detecting children likely to have developmental disabilities or academic delays – 83. Mean scores and standard deviations at Time 1 and Time 2 for the 13 youth ages four years and nine months to five years and two months for each of the skills and competencies are presented in Table 5.

**Table 5: K and 1 BRIGANCE for Mean Scores at Time 1 and Time 2 for Youth Four Years and Nine Months to Five Years and Two Months**

Skills and Competencies	Total Possible Points	Mean	SD	Mean	SD
Personal Data Response	10	7.46	3.18	6.85	3.58
Color Recognition	10	6.85	2.48	7.46	2.57
Picture Vocabulary	10	5.54	3.04	6.31	3.95
Visual Discrimination	10	6.92	1.75	7.54	1.66
Visual-Motor Skills	10	4.15	1.72	4.62	1.71
Gross-Motor Skills	10	8.08	1.80	8.62	1.61
Rote Counting	5	3.23	2.16	4.31	1.03
Identifies Body Parts	5	1.19	1.36	1.42	.98
Follows Verbal Directions	5	4.23	1.58	4.62	.94
Numerical Comprehension	10	5.08	3.12	5.23	4.28
Prints Personal Data	5	3.85	2.19	3.08	2.53
Syntax and Fluency	10	8.85	2.19	9.23	1.88
<b>TOTAL SCORE</b>	<b>100</b>	<b>66.35</b>	<b>18.16</b>	<b>69.27</b>	<b>17.86</b>


  
**Cut-off score for detecting children likely to have developmental disabilities or academic delays – 83.**

**Change in K and 1 BRIGANCE Mean Scores: Youth Four Years and Nine Months to Five Years and Two Months**

The percentage of change in *K and 1 BRIGANCE* mean scores for the 13 youth ages youth four years and nine months to five years and two months in each of the skills and competencies and the *TOTAL SCORE* on the *K and 1 BRIGANCE* are presented in Figure 5 below.

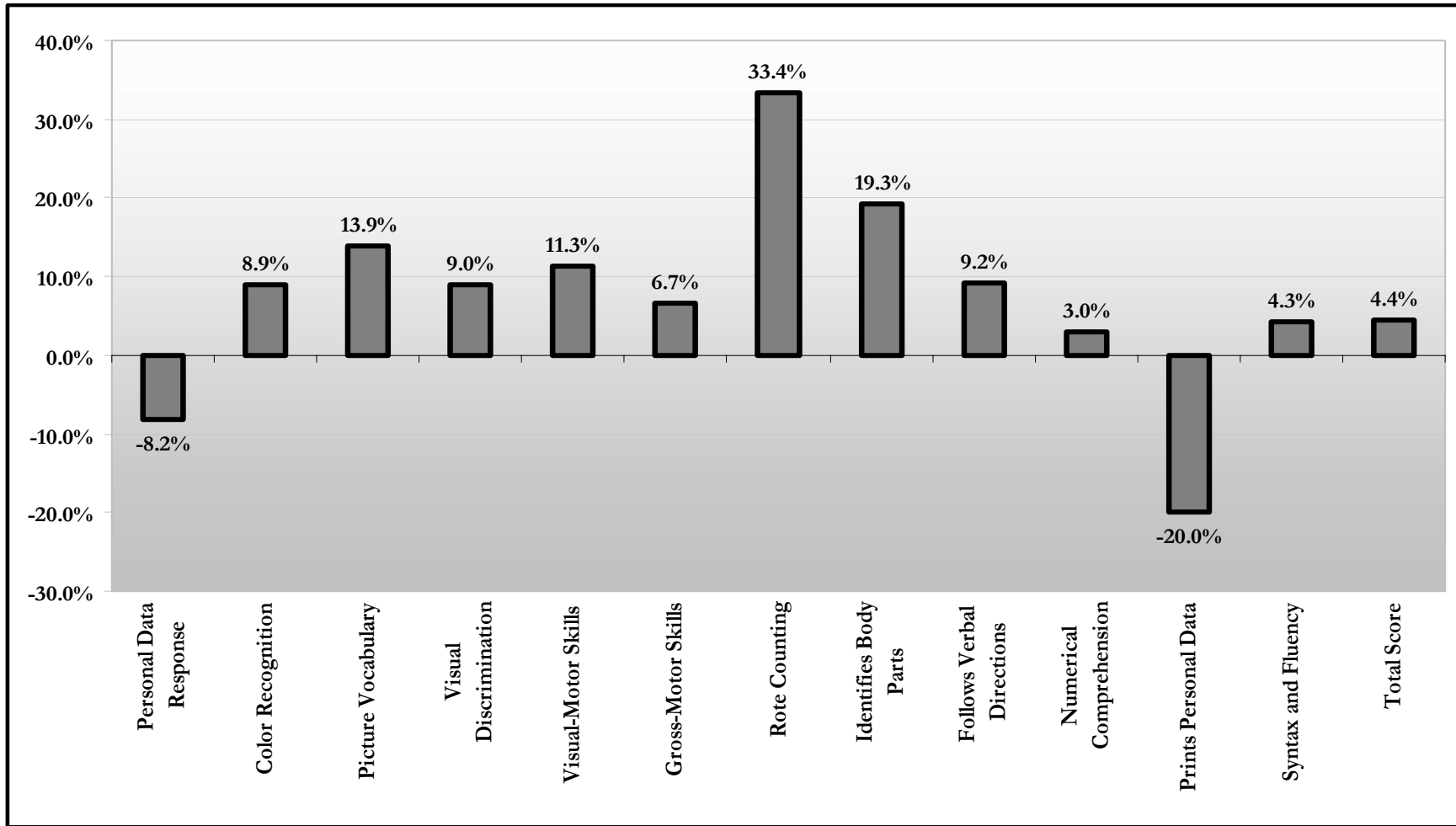


Figure 5: Percentage of Change in *K and 1 BRIGANCE* Mean Scores Between Time 1 and Time 2 for Youth Four Years and Nine Months to Five Years and Two Months

**Change in K and 1 BRIGANCE TOTAL SCORE Mean Scores from Time 1 to Time 2 for Youth Four Years and Nine Months to Five Years and Two Months: Below Cut Off Score of 83 at Time 1 and Above Cut Off Score of 83 at Time 1**

There were increases in *K and 1 BRIGANCE TOTAL SCORE* mean scores between points in time for the 11 youth with a *TOTAL SCORE* of less than 83 at Time 1. For eight (8) of these youth, *TOTAL SCORES* increased between points in time, with one youth rising above the cut off score. There were two youth with decreases in *TOTAL SCORES*, and one youth that had identical *TOTAL SCORES* at both points in time.

There were two (2) youth with *TOTAL SCORE* of greater than 83 at Time 1. For these two, *K and 1 BRIGANCE TOTAL SCORES* increased between Time 1 and Time 2. The *TOTAL SCORE* mean scores on the *K and 1 BRIGANCE* for both groupings are presented in Figure 6.

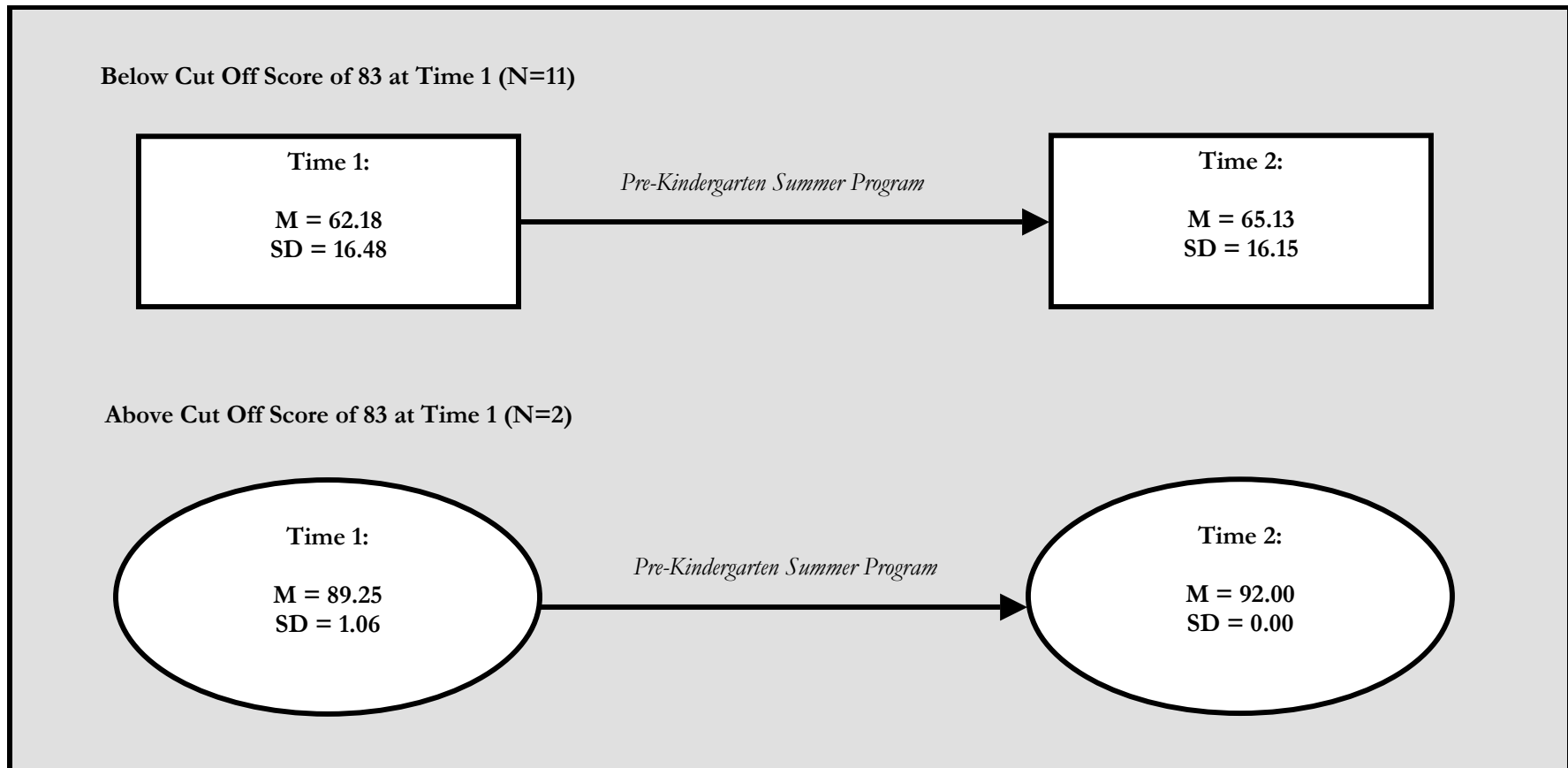


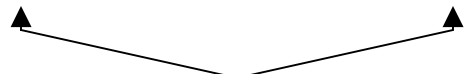
Figure 6: Change in *K and 1 BRIGANCE* Total Score Mean Scores for Youth Four Years and Nine Months to Five Years and Two Months: Below Cut Off Score of 83 at Time 1 and Above Cut Off Score of 83

**K and 1 BRIGANCE Mean Scores at Time 1 and Time 2: Youth Five Years and Three Months to Five Years and Eight Months**

For this age grouping, there were increases in *K and 1 BRIGANCE* mean scores in 11 of the 12 skill and competency categories and in the *TOTAL SCORE* between points in time, with identical scores at Time 1 and Time 2 in one of the categories. *TOTAL SCORE* mean scores at both points in time, however, were below the cut-off score for detecting children likely to have developmental disabilities or academic delays – 92. Mean scores and standard deviations at Time 1 and Time 2 for the eight (8) youth ages youth five years and three months to five years eight months for each of the skills and competencies are presented in Table 6.

**Table 6: K and 1 BRIGANCE for Mean Scores at Time 1 and Time 2 for Youth Five Years and Three Months to Five Years and Eight Months**

Skills and Competencies	Total Possible Points	Mean	SD	Mean	SD
Personal Data Response	10	8.50	2.83	8.88	2.23
Color Recognition	10	7.25	3.58	8.38	2.20
Picture Vocabulary	10	6.75	4.23	8.25	3.06
Visual Discrimination	10	8.50	2.97	8.75	1.83
Visual-Motor Skills	10	4.50	1.77	5.00	1.85
Gross-Motor Skills	10	7.63	2.07	9.13	1.46
Rote Counting	5	4.50	1.04	4.50	1.41
Identifies Body Parts	5	1.50	1.17	2.31	1.44
Follows Verbal Directions	5	4.69	0.88	5.00	0.00
Numerical Comprehension	10	7.25	4.13	8.00	3.70
Prints Personal Data	5	3.75	2.31	4.38	1.77
Syntax and Fluency	10	8.75	2.31	9.38	1.77
<b>TOTAL SCORE</b>	<b>100</b>	<b>73.56</b>	<b>24.65</b>	<b>81.94</b>	<b>19.36</b>


  
**Cut-off score for detecting children likely to have developmental disabilities or academic delays – 92.**

**Change in K and 1 BRIGANCE Mean Scores: Youth Five Years and Three Months to Five Years and Eight Months**

The percentage of change in *K and 1 BRIGANCE* mean scores for the eight (8) youth ages youth five years and three months to five years and eight months in each of the skills and competencies and the *TOTAL SCORE* on the *K and 1 BRIGANCE* are presented in Figure 7 below.

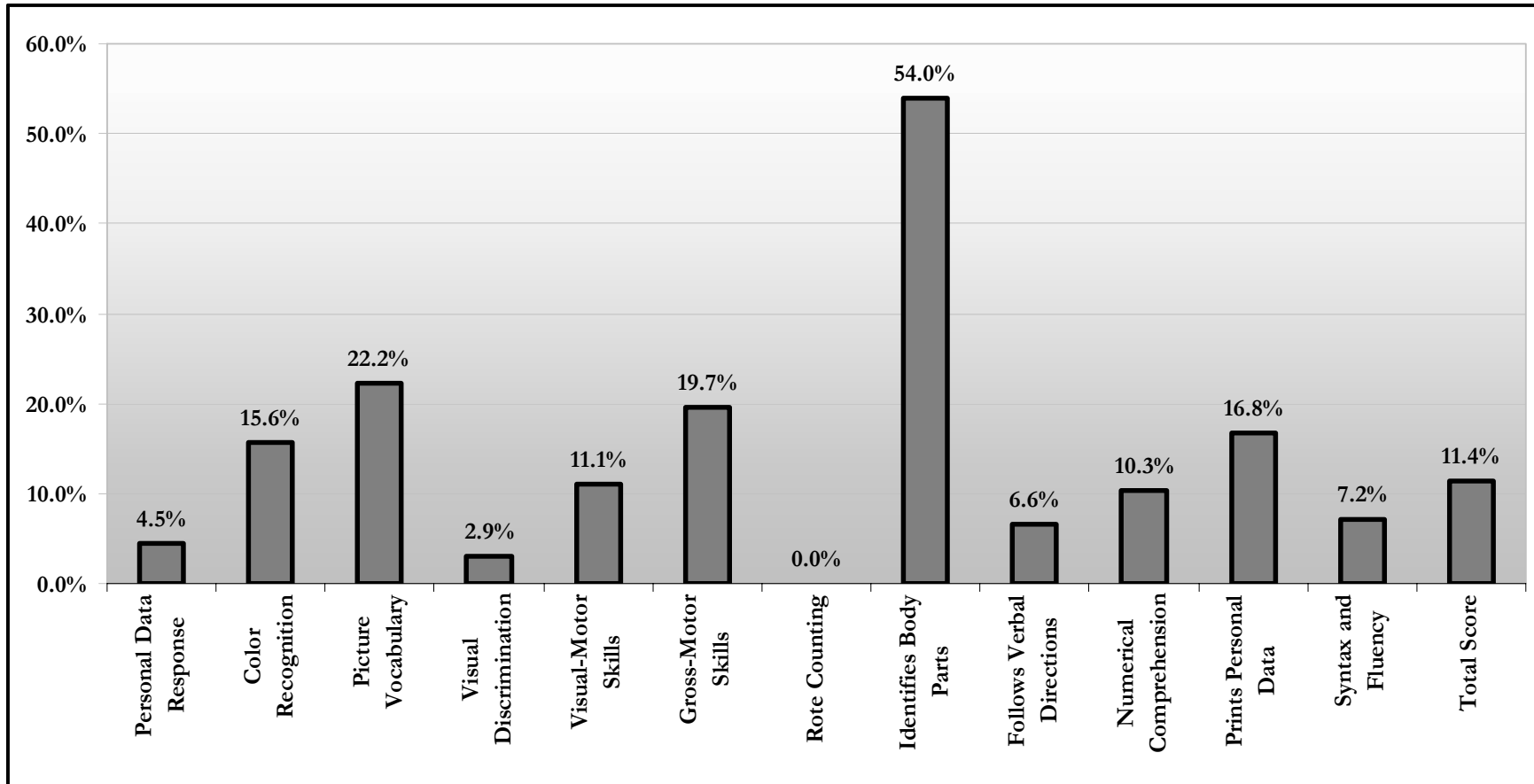


Figure 7: Percentage of Change in *K and 1 BRIGANCE* Mean Scores Between Time 1 and Time 2 for Youth Five Years and Three Months and Five Years and Eight Months

**Change in K and 1 BRIGANCE TOTAL SCORE Mean Scores from Time 1 to Time 2 for Youth Five Years and Three Months to Five Years and Eight Months: Below Cut Off Score of 92 at Time 1 and Above Cut Off Score of 92 at Time 1**

There were increases in *K and 1 BRIGANCE TOTAL SCORE* mean scores between points in time for the six (6) youth with a *TOTAL SCORE* of less than 92 at Time 1. For five (5) of these youth, *TOTAL SCORES* increased between points in time. For one (1) youth, *TOTAL SCORES* decreased between points in time.

There were two (2) youth with *TOTAL SCORE* of greater than 92 at Time 1. For these two, *K and 1 BRIGANCE TOTAL SCORES* increased between Time 1 and Time 2. The *TOTAL SCORE* mean scores on the *K and 1 BRIGANCE* for both groupings are presented in Figure 8.

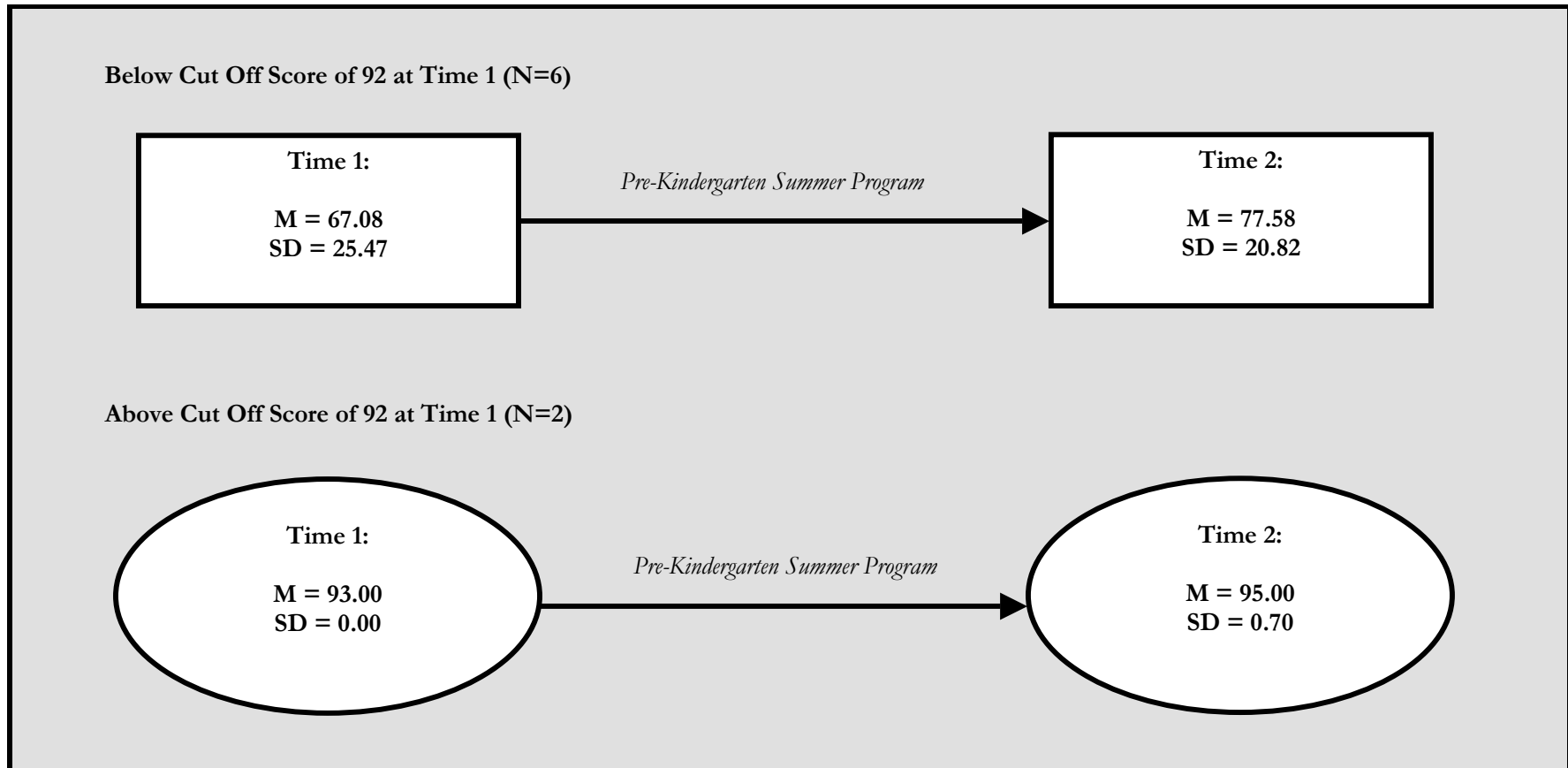


Figure 8: Change in *K and 1 BRIGANCE* Total Score Mean Scores for Youth Five Years and Three Months to Five Years and Eight Months: Below Cut Off Score of 92 at Time 1 and Above Cut Off Score of 92