



RESEARCH TRIANGLE INSTITUTE

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TEACHER'S RELATIONSHIP WITH CHILD

FIRST GRADE STUDENT-TEACHER RELATIONSHIP SCALE

**Child Care Data Report - 309**

*NICHD Study of Early Child Care*





Teacher's Relationship With Child - First Grade  
(Form FS10, Student-Teacher Relationship Scale: Short Form)

At First Grade all teachers were asked to complete a questionnaire designed to assess their perceptions about their relationship with the study child. The items on this scale were derived from attachment theory, the attachment Q-set (Waters & Deane, 1985), and a review of literature on teacher-child interactions. The self-administered questionnaire includes 15 statements that describe student-teacher relationships, and the teacher was asked to circle one of five responses that best describes their relationship with the study child. The 15 items were scored on a five-point Likert scale that ranged from 1 = "Definitely does not apply" to 5 = "Definitely applies". The questionnaire is similar to the one completed by caregivers at 54 months, but contains fewer items (15 instead of 35). However, the First Grade questionnaire is identical to the questionnaire completed by teachers in Kindergarten.

The FSV10G1 data set contains data collected from 1007 teachers. Summary statistics on each variable in the file are included in **Appendix A** (see page 1). Also included are distributions of the composite variables discussed below (pages 2-4 of **Appendix A**), correlations among the composites at First Grade (see page 5 of **Appendix A**), and correlations of the First Grade composites with the Kindergarten composites (see page 12 of **Appendix A**). **Appendix B** contains the program log for variables created from the FSV10G1 data set, and **Appendix C** provides a copy of the questionnaire.

**CNFL\_T1S** - Teacher Conflict With Child is computed as the sum of items 2, 8, 10, 11, 12, 13, and 14. This score was imputed by proportional weighting as described in Technical Note #2. Scores computed in this manner ranged from 7 to 35 (the possible range is 7 to 35), with higher scores indicating more conflict between the teacher and the study child. The items used to create this variable had high internal reliability (Cronbach's alpha = .88). Standard psychometric analyses for this variable are presented in **Table 1**.

**CLSN\_T1S** - Teacher Closeness With Child is computed as the sum of items 1, 3, 4 (reflected), 5, 6, 7, 9, and 15. This score was imputed by proportional weighting as described in Technical Note #2. Scores computed in this manner ranged from 12 to 40 (the possible range is 8 to 40), with higher scores indicating more closeness between the teacher and the study child. The items used to create this variable had high internal reliability (Cronbach's alpha = .85). Standard psychometric analyses for this variable are presented in **Table 2**.

**TPRE\_T1S** - Teacher Total Positive Relationship With Child is computed as the sum of items 1-15. Items 2, 4, 8, 10, 11, 12, 13, and 14 were reflected before being included in **TPRE\_T1S**. This score was imputed by proportional weighting as described in Technical Note #2. Scores computed in this manner ranged from 28 to 75 (the possible range is 15 to 75), with higher scores indicating a more positive total relationship between the teacher and the study child. The items used to create this variable had high internal reliability (Cronbach's alpha = .86). Standard psychometric analyses for this variable are presented in **Table 3**.

A Principal Components "Factor Analysis" (with communalities of 1) followed by a Varimax rotation of 1, 2, and 3 retained factors was performed to compare the empirical structure of the collected data with the a priori structure of two subscales. These results show complete agreement with the two-factor solution that corresponds to the a priori structure. Results of this analysis are presented in pages 6-11 of **Appendix A** (the factor loadings are summarized on pages 9-11). In general, the analysis indicated 2 components when an eigenvalue greater than 1 criterion is used. Of those 2 components, there is one large component with an eigenvalue greater than 5; and one smaller component with an eigenvalue of 3. The one large component accounts for 35.0% of the total system variance.

TABLE 1: CNFL\_T1S

| TABLE 1: CNFL_T1S            |   |       |          |         |         |       |       |      |
|------------------------------|---|-------|----------|---------|---------|-------|-------|------|
| Pod                          | School  |       |          |         |         |       |       |      |
| Construct                    | Teacher Conflict With Child   |       |          |         |         |       |       |      |
| Age                          | First Grade   |       |          |         |         |       |       |      |
| Data Form                    | FS10 Student-Teacher Relationship Scale: Short Form   |       |          |         |         |       |       |      |
| Variable Definition          | CNFL_T1S=sum of items 2, 8, 10, 11, 12, 13 and 14 using prop wts.<br>n_cnflc=n(stst2,stst8,stst10,stst11,stst12,stst13,stst14);<br>s_cnflc=sum(stst2,stst8,stst10,stst11,stst12,stst13,stst14);<br>if n_cnflc/7>=.80 then cnfl_t1s=(7/n_cnflc)*s_cnflc; |       |          |         |         |       |       |      |
| Source Code                  | S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS  |       |          |         |         |       |       |      |
| CRONBACH'S ALPHA             |   |       |          |         |         |       |       |      |
| # Variables                  | 7   |       |          |         |         |       |       |      |
| Raw                          | 0.880   |       |          |         |         |       |       |      |
| Standardized                 | 0.882   |       |          |         |         |       |       |      |
| SUMMARY STATISTICS BY SITE   |   |       |          |         |         |       |       |      |
| Site                         | N   | Mean  | Std.Dev. | Minimum | Maximum | Skew. | Kurt. | Miss |
| Sample                       | 1007  | 10.92 | 5.17     | 7.00    | 35.00   | 1.63  | 2.42  | 0    |
| Ark-0                        | 92  | 12.60 | 5.90     | 7.00    | 35.00   | 1.34  | 1.98  | 0    |
| Cal-1                        | 108   | 11.15 | 5.51     | 7.00    | 27.00   | 1.51  | 1.20  | 0    |
| Kan-2                        | 105   | 11.18 | 4.46     | 7.00    | 27.00   | 1.11  | 0.90  | 0    |
| NHmp-3                       | 100   | 10.79 | 5.61     | 7.00    | 30.00   | 1.84  | 2.96  | 0    |
| Penn-4                       | 102   | 10.00 | 4.36     | 7.00    | 33.00   | 2.20  | 6.98  | 0    |
| Temp-5                       | 98  | 10.90 | 5.35     | 7.00    | 29.00   | 1.53  | 1.79  | 0    |
| Vir-6                        | 99  | 11.34 | 5.37     | 7.00    | 30.00   | 1.35  | 1.07  | 0    |
| Wash -7                      | 111   | 9.77  | 4.02     | 7.00    | 24.00   | 1.72  | 2.47  | 0    |
| WCar-8                       | 92  | 10.91 | 5.68     | 7.00    | 33.00   | 1.84  | 3.37  | 0    |
| Wisc-9                       | 100   | 10.81 | 5.08     | 7.00    | 28.00   | 1.63  | 2.15  | 0    |
| ANOVA for SITE               |   |       |          |         |         |       |       |      |
| F(9 ,997 ) = 2.20 p = 0.0200 |   |       |          |         |         |       |       |      |

Means for the following sites are significantly different at the 0.05 level using Tukey's pairwise comparison procedure:

Site 0 vs. Site 4,7

Site 4 vs. Site 0

Site 7 vs. Site 0

TABLE 1: CNFL\_T1S (continued)

| TABLE 1: CNFL_T1S (continued)           |   |       |          |         |            |       |       |      |
|---|---|-------|----------|---------|------------|-------|-------|------|
| Pod                                     | School  |       |          |         |            |       |       |      |
| Construct                               | Teacher Conflict With Child                         |       |          |         |            |       |       |      |
| Age                                     | First Grade   |       |          |         |            |       |       |      |
| Data Form                               | FS10 Student-Teacher Relationship Scale: Short Form |       |          |         |            |       |       |      |
| CRONBACH'S ALPHA BY CHILD'S ETHNICITY   |   |       |          |         |            |       |       |      |
|   | White, Non-Hispanic                                 |       |          |         | All Others |       |       |      |
| # Variables                             | 7   |       |          |         | 7          |       |       |      |
| Raw                                     | 0.873   |       |          |         | 0.890      |       |       |      |
| Standardized                            | 0.874   |       |          |         | 0.892      |       |       |      |
| SUMMARY STATISTICS BY CHILD'S ETHNICITY |   |       |          |         |            |       |       |      |
| Child's Ethnicity                       | N   | Mean  | Std.Dev. | Minimum | Maximum    | Skew. | Kurt. | Miss |
| Sample                                  | 1007  | 10.92 | 5.17     | 7.00    | 35.00      | 1.63  | 2.42  | 0    |
| White, Non-Hispanic                     | 793   | 10.53 | 4.84     | 7.00    | 31.00      | 1.65  | 2.34  | 0    |
| All Others                              | 214   | 12.36 | 6.04     | 7.00    | 35.00      | 1.41  | 1.71  | 0    |
| ANOVA for CHILD'S ETHNICITY             |   |       |          |         |            |       |       |      |
| F(1 ,1005 ) = 21.61 p < 0.0001          |   |       |          |         |            |       |       |      |

TABLE 2: CLSN\_T1S

| TABLE 2: CLSN_T1S            |   |       |          |         |         |       |       |      |
|------------------------------|---|-------|----------|---------|---------|-------|-------|------|
| Pod                          | School  |       |          |         |         |       |       |      |
| Construct                    | Teacher Closeness With Child  |       |          |         |         |       |       |      |
| Age                          | First Grade   |       |          |         |         |       |       |      |
| Data Form                    | FS10 Student-Teacher Relationship Scale: Short Form   |       |          |         |         |       |       |      |
| Variable Definition          | CLSN_T1S=sum of items 1, 3, 4r, 5, 6, 7, 9 and 15 using prop wts.<br>n_clsns=n(stst1,stst3,stst4r,stst5,stst6,stst7,stst9,stst15);<br>s_clsns=sum(stst1,stst3,stst4r,stst5,stst6,stst7,stst9,stst15);<br>if n_clsns/8>=.80 then clsn_t1s=(8/n_clsns)*s_clsns; |       |          |         |         |       |       |      |
| Source Code                  | S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS  |       |          |         |         |       |       |      |
| CRONBACH'S ALPHA             |   |       |          |         |         |       |       |      |
| # Variables                  | 8   |       |          |         |         |       |       |      |
| Raw                          | 0.846   |       |          |         |         |       |       |      |
| Standardized                 | 0.854   |       |          |         |         |       |       |      |
| SUMMARY STATISTICS BY SITE   |   |       |          |         |         |       |       |      |
| Site                         | N   | Mean  | Std.Dev. | Minimum | Maximum | Skew. | Kurt. | Miss |
| Sample                       | 1006  | 33.96 | 5.04     | 12.00   | 40.00   | -1.12 | 1.31  | 1    |
| Ark-0                        | 92  | 34.32 | 5.17     | 16.00   | 40.00   | -1.43 | 2.66  | 0    |
| Cal-1                        | 108   | 34.50 | 4.87     | 17.00   | 40.00   | -1.43 | 2.59  | 0    |
| Kan-2                        | 105   | 33.96 | 5.01     | 16.00   | 40.00   | -0.98 | 0.83  | 0    |
| NHmp-3                       | 100   | 33.98 | 4.81     | 17.00   | 40.00   | -1.22 | 1.69  | 0    |
| Penn-4                       | 102   | 33.41 | 5.70     | 16.00   | 40.00   | -1.10 | 0.71  | 0    |
| Temp-5                       | 98  | 34.23 | 5.08     | 18.00   | 40.00   | -0.97 | 0.57  | 0    |
| Vir-6                        | 99  | 34.05 | 4.96     | 18.00   | 40.00   | -0.90 | 0.51  | 0    |
| Wash -7                      | 110   | 33.01 | 5.52     | 12.00   | 40.00   | -1.40 | 2.37  | 1    |
| WCar-8                       | 92  | 34.77 | 4.41     | 24.00   | 40.00   | -0.67 | -0.30 | 0    |
| Wisc-9                       | 100   | 33.58 | 4.67     | 21.00   | 40.00   | -0.61 | -0.22 | 0    |
| ANOVA for SITE               |   |       |          |         |         |       |       |      |
| F(9 ,996 ) = 1.12 p = 0.3480 |   |       |          |         |         |       |       |      |

TABLE 2: CLSN\_T1S (continued)

| TABLE 2: CLSN_T1S (continued)           |   |       |          |         |            |       |       |      |
|---|---|-------|----------|---------|------------|-------|-------|------|
| Pod                                     | School  |       |          |         |            |       |       |      |
| Construct                               | Teacher Closeness With Child                        |       |          |         |            |       |       |      |
| Age                                     | First Grade   |       |          |         |            |       |       |      |
| Data Form                               | FS10 Student-Teacher Relationship Scale: Short Form |       |          |         |            |       |       |      |
| CRONBACH'S ALPHA BY CHILD'S ETHNICITY   |   |       |          |         |            |       |       |      |
|   | White, Non-Hispanic                                 |       |          |         | All Others |       |       |      |
| # Variables                             | 8   |       |          |         | 8          |       |       |      |
| Raw                                     | 0.834   |       |          |         | 0.871      |       |       |      |
| Standardized                            | 0.843   |       |          |         | 0.878      |       |       |      |
| SUMMARY STATISTICS BY CHILD'S ETHNICITY |   |       |          |         |            |       |       |      |
| Child's Ethnicity                       | N   | Mean  | Std.Dev. | Minimum | Maximum    | Skew. | Kurt. | Miss |
| Sample                                  | 1006  | 33.96 | 5.04     | 12.00   | 40.00      | -1.12 | 1.31  | 1    |
| White, Non-Hispanic                     | 793   | 34.25 | 4.82     | 12.00   | 40.00      | -1.05 | 1.18  | 0    |
| All Others                              | 213   | 32.92 | 5.71     | 16.00   | 40.00      | -1.14 | 1.02  | 1    |
| ANOVA for CHILD'S ETHNICITY             |   |       |          |         |            |       |       |      |
| F(1 ,1004 ) = 11.78 p = 0.0006          |   |       |          |         |            |       |       |      |

TABLE 3: TPRE\_T1S

| TABLE 3: TPRE_T1S            |   |       |          |         |         |       |       |      |
|------------------------------|---|-------|----------|---------|---------|-------|-------|------|
| Pod                          | School  |       |          |         |         |       |       |      |
| Construct                    | Teacher Total Positive Relationship With Child  |       |          |         |         |       |       |      |
| Age                          | First Grade   |       |          |         |         |       |       |      |
| Data Form                    | FS10 Student-Teacher Relationship Scale: Short Form   |       |          |         |         |       |       |      |
| Variable Definition          | TPRE_T1S=sum of items 1-15 using proportional weighting after reflecting items 2, 4, 8, 10, 11, 12, 13 and 14.<br>n_tprel=n(stst1,...,stst15); s_tprel=sum(stst1,...,stst15);<br>if n_tprel/15>=.80 then tpre_t1s=(15/n_tprel)*s_tprel; |       |          |         |         |       |       |      |
| Source Code                  | S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS  |       |          |         |         |       |       |      |
| CRONBACH'S ALPHA             |   |       |          |         |         |       |       |      |
| # Variables                  | 15  |       |          |         |         |       |       |      |
| Raw                          | 0.860   |       |          |         |         |       |       |      |
| Standardized                 | 0.865   |       |          |         |         |       |       |      |
| SUMMARY STATISTICS BY SITE   |   |       |          |         |         |       |       |      |
| Site                         | N   | Mean  | Std.Dev. | Minimum | Maximum | Skew. | Kurt. | Miss |
| Sample                       | 1007  | 65.04 | 8.16     | 28.00   | 75.00   | -1.11 | 1.20  | 0    |
| Ark-0                        | 92  | 63.72 | 8.60     | 39.00   | 75.00   | -0.72 | 0.00  | 0    |
| Cal-1                        | 108   | 65.35 | 8.00     | 35.00   | 75.00   | -1.29 | 1.62  | 0    |
| Kan-2                        | 105   | 64.78 | 7.38     | 43.00   | 75.00   | -0.76 | 0.19  | 0    |
| NHmp-3                       | 100   | 65.20 | 8.49     | 33.00   | 75.00   | -1.56 | 2.55  | 0    |
| Penn-4                       | 102   | 65.41 | 8.53     | 28.00   | 75.00   | -1.38 | 2.80  | 0    |
| Temp-5                       | 98  | 65.32 | 8.58     | 41.00   | 75.00   | -0.95 | 0.31  | 0    |
| Vir-6                        | 99  | 64.72 | 8.45     | 30.00   | 75.00   | -1.20 | 1.99  | 0    |
| Wash -7                      | 111   | 65.21 | 7.51     | 36.00   | 75.00   | -1.27 | 1.95  | 0    |
| WCar-8                       | 92  | 65.86 | 8.66     | 41.00   | 75.00   | -1.21 | 0.92  | 0    |
| Wisc-9                       | 100   | 64.76 | 7.68     | 38.00   | 75.00   | -0.80 | 0.24  | 0    |
| ANOVA for SITE               |   |       |          |         |         |       |       |      |
| F(9 ,997 ) = 0.47 p = 0.8922 |   |       |          |         |         |       |       |      |



TABLE 3: TPRE\_T1S (continued)

| TABLE 3: TPRE_T1S (continued)           |   |       |          |         |            |       |       |      |
|---|---|-------|----------|---------|------------|-------|-------|------|
| Pod                                     | School  |       |          |         |            |       |       |      |
| Construct                               | Teacher Total Positive Relationship With Child      |       |          |         |            |       |       |      |
| Age                                     | First Grade   |       |          |         |            |       |       |      |
| Data Form                               | FS10 Student-Teacher Relationship Scale: Short Form |       |          |         |            |       |       |      |
| CRONBACH'S ALPHA BY CHILD'S ETHNICITY   |   |       |          |         |            |       |       |      |
|   | White, Non-Hispanic                                 |       |          |         | All Others |       |       |      |
| # Variables                             | 15  |       |          |         | 15         |       |       |      |
| Raw                                     | 0.848   |       |          |         | 0.878      |       |       |      |
| Standardized                            | 0.854   |       |          |         | 0.881      |       |       |      |
| SUMMARY STATISTICS BY CHILD'S ETHNICITY |   |       |          |         |            |       |       |      |
| Child's Ethnicity                       | N   | Mean  | Std.Dev. | Minimum | Maximum    | Skew. | Kurt. | Miss |
| Sample                                  | 1007  | 65.04 | 8.16     | 28.00   | 75.00      | -1.11 | 1.20  | 0    |
| White, Non-Hispanic                     | 793   | 65.72 | 7.63     | 35.00   | 75.00      | -1.03 | 0.84  | 0    |
| All Others                              | 214   | 62.54 | 9.50     | 28.00   | 75.00      | -1.07 | 0.89  | 0    |
| ANOVA for CHILD'S ETHNICITY             |   |       |          |         |            |       |       |      |
| F(1 ,1005 ) = 26.24 p < 0.0001          |   |       |          |         |            |       |       |      |

## Appendix A

NICHD STUDY OF EARLY CHILD CARE  
VARIABLES FROM FORM FS10

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| Variable | Label                                    | N    | Mean      | Std Dev   | Minimum  | Maximum   | Skewness | Kurtosis | Nmiss |
|----------|--|------|-----------|-----------|----------|-----------|----------|----------|-------|
| ID       | CHILD IDENTIFICATION NUMBER              | 1007 | 469393.21 | 287127.24 | 10032.00 | 920731.00 | 0.01     | -1.25    | 0     |
| DIDS101  | DATA COLLECTION CHILD ID NUMBER          | 1007 | 467842.07 | 286251.11 | 10032.00 | 930734.00 | 0.02     | -1.24    | 0     |
| SITE     | LOCATION OF DATA COLLECTION              | 1007 | 4.49      | 2.85      | 0.00     | 9.00      | 0.01     | -1.22    | 0     |
| INDTS101 | FSV10G1 (SAS) DATE OF INTERVIEW          | 1007 | 13993.10  | 132.72    | 13881.00 | 14416.00  | 1.84     | 1.81     | 0     |
| TCH1ID   | TEACHER ID NUMBER                        | 1007 | 45965.68  | 28525.52  | 1002.00  | 91099.00  | 0.01     | -1.22    | 0     |
| PRT1ID   | PRIOR TEACHER ID NUMBER                  | 29   | 52942.59  | 27468.93  | 1016.00  | 91068.00  | -0.61    | -0.63    | 978   |
| STRMON   | DATE RECEIVED(MONTH)                     | 1007 | 3.10      | 1.15      | 1.00     | 8.00      | 0.80     | 0.49     | 0     |
| STRDAY   | DATE RECEIVED(DAY)                       | 1007 | 14.46     | 8.32      | 1.00     | 31.00     | 0.19     | -1.09    | 0     |
| STRYEAR  | DATE RECEIVED(YEAR)                      | 1007 | 98.14     | 0.35      | 98.00    | 99.00     | 2.02     | 2.08     | 0     |
| INTYS101 | TODAY'S DATE(YEAR)                       | 1006 | 98.15     | 0.35      | 98.00    | 99.00     | 2.02     | 2.08     | 1     |
| INTMS101 | TODAY'S DATE(MONTH)                      | 1006 | 2.52      | 1.18      | 1.00     | 8.00      | 0.66     | 0.17     | 1     |
| INTDS101 | TODAY'S DATE (DAY)                       | 1006 | 15.31     | 9.01      | 1.00     | 31.00     | 0.00     | -1.27    | 1     |
| STST1    | I SHARE AN AFFECTIONATE, WARM RELATIONSH | 1004 | 4.43      | 0.79      | 1.00     | 5.00      | -1.58    | 2.63     | 3     |
| STST2    | SC AND I ALWAYS SEEM TO BE STRUGGLING W/ | 1007 | 1.62      | 1.00      | 1.00     | 5.00      | 1.71     | 2.01     | 0     |
| STST3    | IF UPSET, SC WILL SEEK COMFORT FROM ME   | 1006 | 4.09      | 0.92      | 1.00     | 5.00      | -1.08    | 0.88     | 1     |
| STST4    | SC IN UNCOMFORTABLE W/PHYSICAL AFFECTION | 1006 | 1.88      | 1.08      | 1.00     | 5.00      | 1.20     | 0.63     | 1     |
| STST5    | SC VALUES HIS/HER RELATIONSHIP WITH ME   | 1006 | 4.38      | 0.79      | 1.00     | 5.00      | -1.02    | 0.24     | 1     |
| STST6    | WHEN I PRAISE SC, HE/SHE BEAMS WITH PRID | 1007 | 4.71      | 0.59      | 1.00     | 5.00      | -2.63    | 9.05     | 0     |
| STST7    | SC SPONTANEOUSLY SHARES INFO ABOUT HIM/H | 1006 | 4.28      | 0.95      | 1.00     | 5.00      | -1.50    | 1.74     | 1     |
| STST8    | SC EASILY BECOMES ANGRY AT ME            | 1006 | 1.57      | 0.92      | 1.00     | 5.00      | 1.89     | 3.14     | 1     |
| STST9    | IT IS EASY TO BE IN TUNE W/WHAT SC IS FE | 1006 | 3.84      | 1.04      | 1.00     | 5.00      | -0.78    | -0.18    | 1     |
| STST10   | SC REMAINS ANGRY/RESISTANT AFTER BEING D | 1005 | 1.66      | 1.05      | 1.00     | 5.00      | 1.62     | 1.63     | 2     |
| STST11   | DEALING WITH SC DRAINS MY ENERGY         | 1007 | 1.63      | 1.08      | 1.00     | 5.00      | 1.68     | 1.60     | 0     |
| STST12   | SC WAKES UP IN BAD MOOD, IN FOR LONG/DIF | 1005 | 1.51      | 0.90      | 1.00     | 5.00      | 2.07     | 3.91     | 2     |
| STST13   | SC'S FEELINGS TOWARD ME CAN BE UNPREDICT | 1007 | 1.42      | 0.83      | 1.00     | 5.00      | 2.45     | 6.16     | 0     |
| STST14   | SC IS SNEAKY OR MANIPULATIVE WITH ME     | 1006 | 1.51      | 0.97      | 1.00     | 5.00      | 1.99     | 2.91     | 1     |
| STST15   | SC OPENLY SHARES HIS/HER FEELINGS/EXPERI | 1006 | 4.09      | 1.03      | 1.00     | 5.00      | -1.34    | 1.37     | 1     |
| DTCH_ID  | INDICATOR FOR DUMMY TEACH_ID (1=Y/0=N)   | 1007 | 0.00      | 0.00      | 0.00     | 0.00      | .        | .        | 0     |
| STST2R   | Q2 Reversed                              | 1007 | 4.38      | 1.00      | 1.00     | 5.00      | -1.71    | 2.01     | 0     |
| STST4R   | Q4 Reversed                              | 1006 | 4.12      | 1.08      | 1.00     | 5.00      | -1.20    | 0.63     | 1     |
| STST8R   | Q8 Reversed                              | 1006 | 4.43      | 0.92      | 1.00     | 5.00      | -1.89    | 3.14     | 1     |
| STST10R  | Q10 Reversed                             | 1005 | 4.34      | 1.05      | 1.00     | 5.00      | -1.62    | 1.63     | 2     |
| STST11R  | Q11 Reversed                             | 1007 | 4.37      | 1.08      | 1.00     | 5.00      | -1.68    | 1.60     | 0     |
| STST12R  | Q12 Reversed                             | 1005 | 4.49      | 0.90      | 1.00     | 5.00      | -2.07    | 3.91     | 2     |
| STST13R  | Q13 Reversed                             | 1007 | 4.58      | 0.83      | 1.00     | 5.00      | -2.45    | 6.16     | 0     |
| STST14R  | Q14 Reversed                             | 1006 | 4.49      | 0.97      | 1.00     | 5.00      | -1.99    | 2.91     | 1     |
| CNFL_    | Teacher: Conflict w/ SC @1S: w/o PrpWt   | 1001 | 10.90     | 5.16      | 7.00     | 35.00     | 1.64     | 2.48     | 6     |
| CNFL_T1S | Teacher: Conflict w/ SC @1S: w/ PrpWt    | 1007 | 10.92     | 5.17      | 7.00     | 35.00     | 1.63     | 2.42     | 0     |
| CLSN_    | Teacher: Closeness w/ SC @1S: w/o PrpWt  | 1000 | 33.97     | 5.06      | 12.00    | 40.00     | -1.11    | 1.30     | 7     |
| CLSN_T1S | Teacher: Closeness w/ SC @1S: w/ PrpWt   | 1006 | 33.96     | 5.04      | 12.00    | 40.00     | -1.12    | 1.31     | 1     |
| TPRE_    | Teacher: Tot Pos Rel w/SC @1S: w/o PrpWt | 994  | 65.07     | 8.18      | 28.00    | 75.00     | -1.13    | 1.22     | 13    |
| TPRE_T1S | Teacher: Tot Pos Rel w/ SC @1S: w/ PrpWt | 1007 | 65.04     | 8.16      | 28.00    | 75.00     | -1.11    | 1.20     | 0     |

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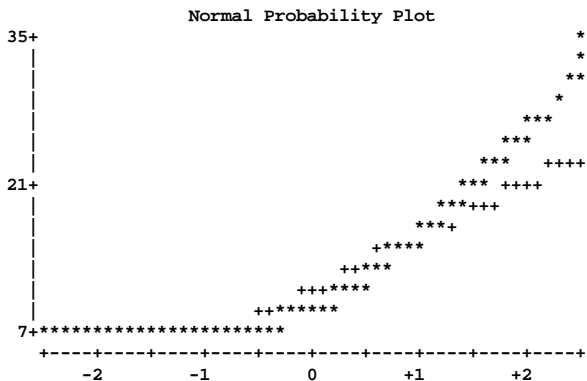
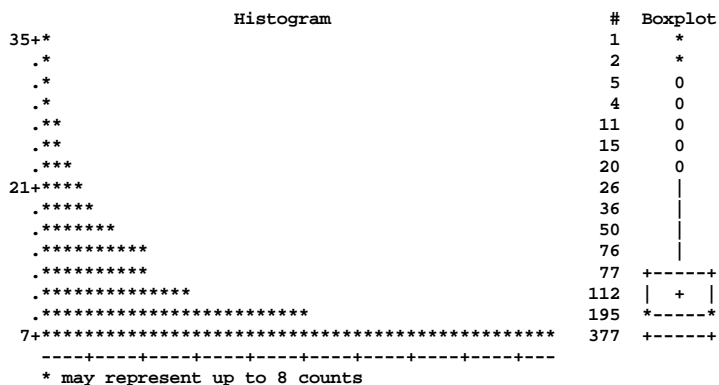
NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10

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Univariate Procedure

Variable=CNFL\_T1S Teacher: Conflict w/ SC @1S: w/ PrpWt

| Moments  |          |          |          | Quantiles(Def=5) |    |     | Extremes |        |         |         |         |
|----------|----------|----------|----------|------------------|----|-----|----------|--------|---------|---------|---------|
| N        | 1007     | Sum Wgts | 1007     | 100% Max         | 35 | 99% | 28       | Lowest | ID      | Highest | ID      |
| Mean     | 10.92039 | Sum      | 10996.83 | 75% Q3           | 13 | 95% | 22       | 7(     | 920727) | 31(     | 010206) |
| Std Dev  | 5.172855 | Variance | 26.75843 | 50% Med          | 9  | 90% | 18       | 7(     | 920707) | 31(     | 830177) |
| Skewness | 1.625814 | Kurtosis | 2.421149 | 25% Q1           | 7  | 10% | 7        | 7(     | 920630) | 33(     | 410659) |
| USS      | 147008.7 | CSS      | 26918.98 | 0% Min           | 7  | 5%  | 7        | 7(     | 920454) | 33(     | 820077) |
| CV       | 47.36877 | Std Mean | 0.16301  |                  |    | 1%  | 7        | 7(     | 920440) | 35(     | 020905) |
| T:Mean=0 | 66.99195 | Pr> T    | 0.0001   | Range            | 28 |     |          |        |         |         |         |
| Num ^= 0 | 1007     | Num > 0  | 1007     | Q3-Q1            | 6  |     |          |        |         |         |         |
| M(Sign)  | 503.5    | Pr>= M   | 0.0001   | Mode             | 7  |     |          |        |         |         |         |
| Sgn Rank | 253764   | Pr>= S   | 0.0001   |                  |    |     |          |        |         |         |         |
| W:Normal | 0.76352  | Pr<W     | 0.0001   |                  |    |     |          |        |         |         |         |



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NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10

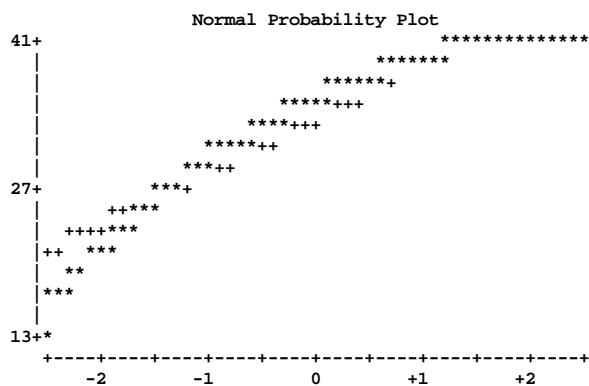
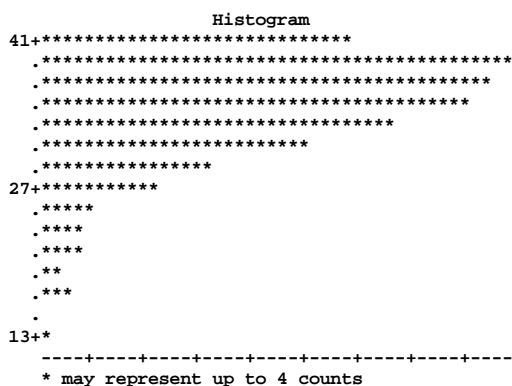
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Univariate Procedure

Variable=CLSN\_T1S Teacher: Closeness w/ SC @1S: w/ PrpWt

| Moments  |          |          |          | Quantiles(Def=5) |    |     |    | Extremes |         |         |         |
|----------|----------|----------|----------|------------------|----|-----|----|----------|---------|---------|---------|
| N        | 1006     | Sum Wgts | 1006     | 100% Max         | 40 | 99% | 40 | Lowest   | ID      | Highest | ID      |
| Mean     | 33.96464 | Sum      | 34168.43 | 75% Q3           | 38 | 95% | 40 | 12(      | 730486) | 40(     | 910255) |
| Std Dev  | 5.044429 | Variance | 25.44627 | 50% Med          | 35 | 90% | 40 | 16(      | 710477) | 40(     | 910367) |
| Skewness | -1.11655 | Kurtosis | 1.313283 | 25% Q1           | 31 | 10% | 27 | 16(      | 410455) | 40(     | 910385) |
| USS      | 1186092  | CSS      | 25573.5  | 0% Min           | 12 | 5%  | 24 | 16(      | 220259) | 40(     | 910667) |
| CV       | 14.852   | Std Mean | 0.159042 |                  |    | 1%  | 17 | 16(      | 020413) | 40(     | 920010) |
| T:Mean=0 | 213.5571 | Pr> T    | 0.0001   | Range            | 28 |     |    |          |         |         |         |
| Num ^= 0 | 1006     | Num > 0  | 1006     | Q3-Q1            | 7  |     |    |          |         |         |         |
| M(Sign)  | 503      | Pr>= M   | 0.0001   | Mode             | 40 |     |    |          |         |         |         |
| Sgn Rank | 253260.5 | Pr>= S   | 0.0001   |                  |    |     |    |          |         |         |         |
| W:Normal | 0.897194 | Pr<W     | 0.0001   |                  |    |     |    |          |         |         |         |

Missing Value .  
 Count 1  
 % Count/Nobs 0.10



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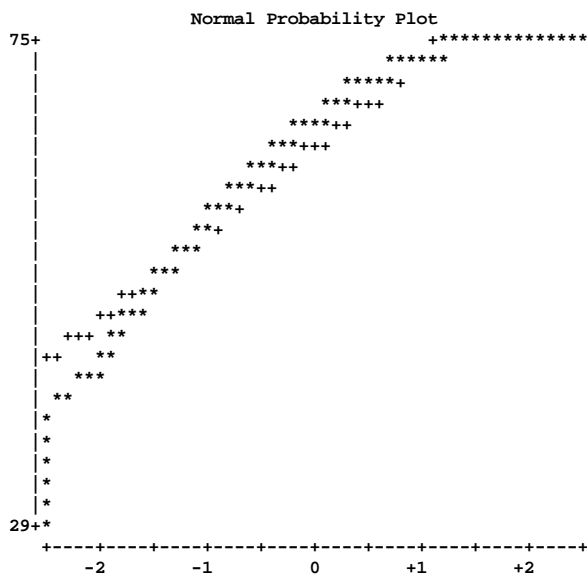
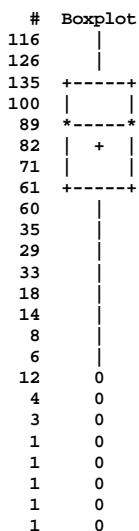
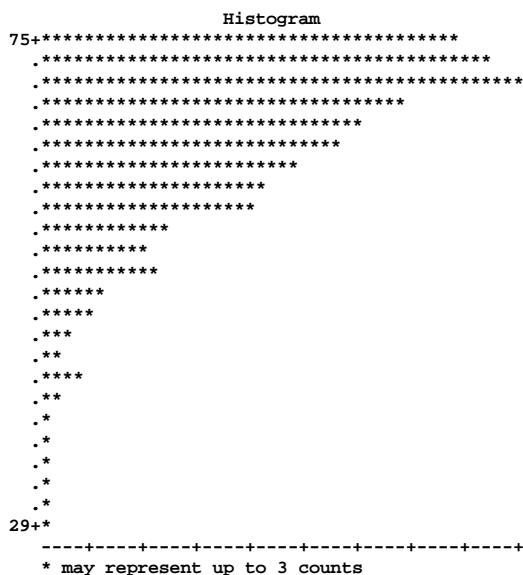
NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10

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Univariate Procedure

Variable=TPRE\_T1S Teacher: Tot Pos Rel w/ SC @1S: w/ PrpWt

| Moments  |          |          |          | Quantiles(Def=5) |    |     | Extremes |        |         |         |         |
|----------|----------|----------|----------|------------------|----|-----|----------|--------|---------|---------|---------|
| N        | 1007     | Sum Wgts | 1007     | 100% Max         | 75 | 99% | 75       | Lowest | ID      | Highest | ID      |
| Mean     | 65.04071 | Sum      | 65496    | 75% Q3           | 71 | 95% | 75       | 28(    | 410659) | 75(     | 830982) |
| Std Dev  | 8.16335  | Variance | 66.64028 | 50% Med          | 67 | 90% | 74       | 30(    | 610936) | 75(     | 910058) |
| Skewness | -1.11401 | Kurtosis | 1.203037 | 25% Q1           | 60 | 10% | 53       | 33(    | 320735) | 75(     | 910199) |
| USS      | 4326947  | CSS      | 67040.13 | 0% Min           | 28 | 5%  | 49       | 35(    | 120941) | 75(     | 910385) |
| CV       | 12.55114 | Std Mean | 0.257249 |                  |    | 1%  | 41       | 36(    | 730486) | 75(     | 910667) |
| T:Mean=0 | 252.8318 | Pr> T    | 0.0001   | Range            | 47 |     |          |        |         |         |         |
| Num ^= 0 | 1007     | Num > 0  | 1007     | Q3-Q1            | 11 |     |          |        |         |         |         |
| M(Sign)  | 503.5    | Pr>= M   | 0.0001   | Mode             | 71 |     |          |        |         |         |         |
| Sgn Rank | 253764   | Pr>= S   | 0.0001   |                  |    |     |          |        |         |         |         |
| W:Normal | 0.898168 | Pr<W     | 0.0001   |                  |    |     |          |        |         |         |         |



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NICHD STUDY OF EARLY CHILD CARE  
VARIABLES FROM FORM FS10

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Correlation Analysis

3 'VAR' Variables: CNFL\_T1S CLSN\_T1S TPRE\_T1S

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / Number of Observations

|  | CNFL_T1S | CLSN_T1S | TPRE_T1S |
|--|----------|----------|----------|
| CNFL_T1S                                 | 1.00000  | -0.27749 | -0.80444 |
| Teacher: Conflict w/ SC @1S: w/ PrpWt    | 0.0      | 0.0001   | 0.0001   |
|  | 1007     | 1006     | 1007     |
| CLSN_T1S                                 | -0.27749 | 1.00000  | 0.79365  |
| Teacher: Closeness w/ SC @1S: w/ PrpWt   | 0.0001   | 0.0      | 0.0001   |
|  | 1006     | 1006     | 1006     |
| TPRE_T1S                                 | -0.80444 | 0.79365  | 1.00000  |
| Teacher: Tot Pos Rel w/ SC @1S: w/ PrpWt | 0.0001   | 0.0001   | 0.0      |
|  | 1007     | 1006     | 1007     |

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NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10

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EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @15  
 WITH 1 FACTOR

Initial Factor Method: Principal Components

Prior Communality Estimates: ONE

Eigenvalues of the Correlation Matrix: Total = 15 Average = 1

|            |        |        |        |        |        |        |        |        |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
|            | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
| Eigenvalue | 5.2519 | 2.9718 | 0.8550 | 0.8387 | 0.6990 | 0.6096 | 0.5619 | 0.5478 |
| Difference | 2.2801 | 2.1167 | 0.0163 | 0.1397 | 0.0894 | 0.0477 | 0.0141 | 0.0616 |
| Proportion | 0.3501 | 0.1981 | 0.0570 | 0.0559 | 0.0466 | 0.0406 | 0.0375 | 0.0365 |
| Cumulative | 0.3501 | 0.5482 | 0.6052 | 0.6612 | 0.7078 | 0.7484 | 0.7859 | 0.8224 |
|            | 9      | 10     | 11     | 12     | 13     | 14     | 15     |        |
| Eigenvalue | 0.4862 | 0.4638 | 0.4264 | 0.3899 | 0.3384 | 0.2990 | 0.2606 |        |
| Difference | 0.0224 | 0.0374 | 0.0365 | 0.0515 | 0.0393 | 0.0384 |        |        |
| Proportion | 0.0324 | 0.0309 | 0.0284 | 0.0260 | 0.0226 | 0.0199 | 0.0174 |        |
| Cumulative | 0.8548 | 0.8857 | 0.9141 | 0.9401 | 0.9627 | 0.9826 | 1.0000 |        |

1 factors will be retained by the NFACTOR criterion.

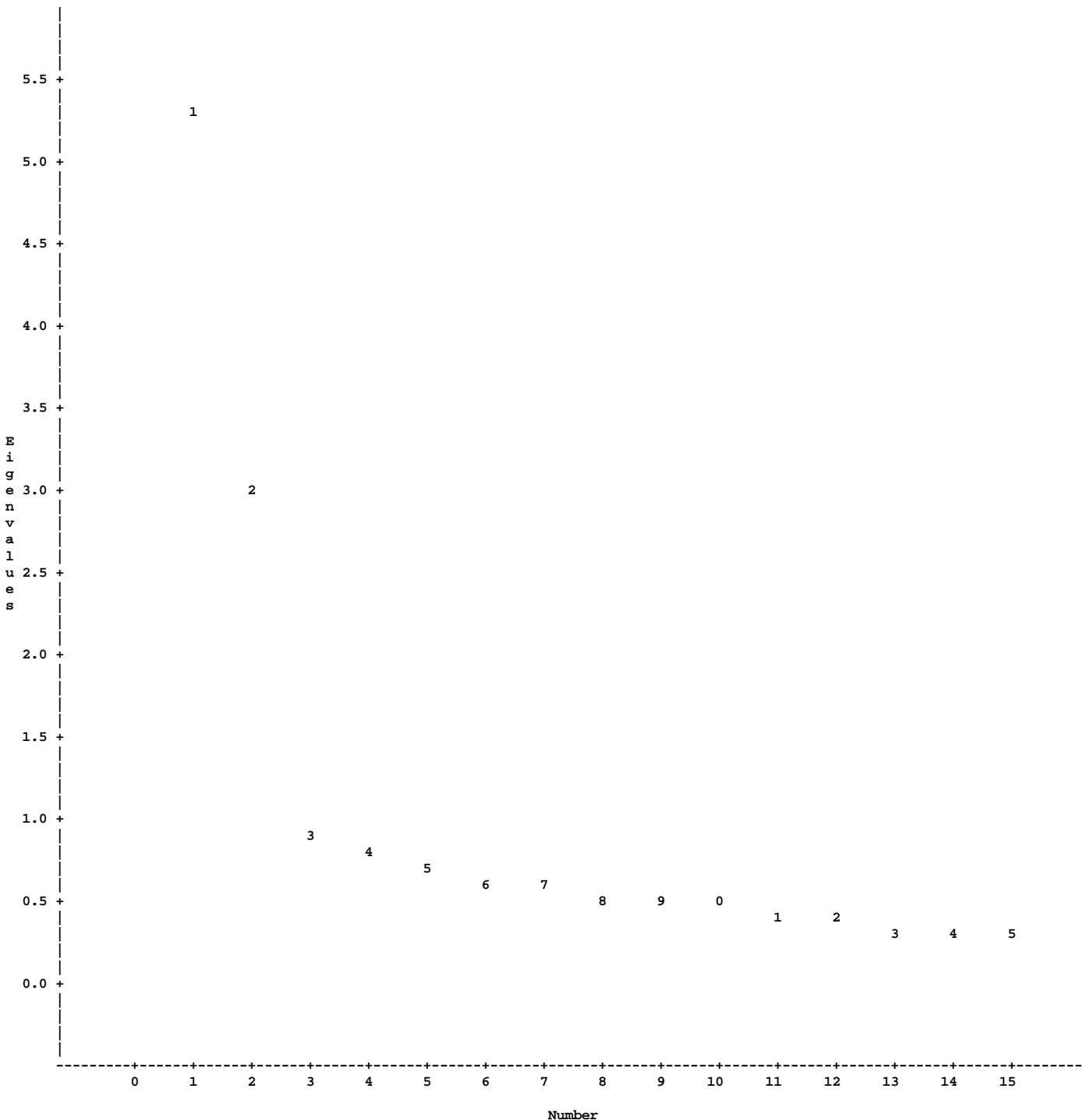
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NICHD STUDY OF EARLY CHILD CARE  
VARIABLES FROM FORM FS10  
EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @1S  
WITH 1 FACTOR

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Initial Factor Method: Principal Components

Scree Plot of Eigenvalues



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NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10  
 EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @15  
 WITH 1 FACTOR

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Initial Factor Method: Principal Components

Factor Pattern

|        | FACTOR1  |  |
|--------|----------|--|
| STST1  | -0.66726 | I SHARE AN AFFECTIONATE, WARM RELATIONSH |
| STST2  | 0.64990  | SC AND I ALWAYS SEEM TO BE STRUGGLING W/ |
| STST3  | -0.57962 | IF UPSET, SC WILL SEEK COMFORT FROM ME   |
| STST4R | -0.42663 | Q4 Reversed                              |
| STST5  | -0.66339 | SC VALUES HIS/HER RELATIONSHIP WITH ME   |
| STST6  | -0.49982 | WHEN I PRAISE SC, HE/SHE BEAMS WITH PRID |
| STST7  | -0.43988 | SC SPONTANEOUSLY SHARES INFO ABOUT HIM/H |
| STST8  | 0.62594  | SC EASILY BECOMES ANGRY AT ME            |
| STST9  | -0.60082 | IT IS EASY TO BE IN TUNE W/WHAT SC IS FE |
| STST10 | 0.61979  | SC REMAINS ANGRY/RESISTANT AFTER BEING D |
| STST11 | 0.64201  | DEALING WITH SC DRAINS MY ENERGY         |
| STST12 | 0.61933  | SC WAKES UP IN BAD MOOD, IN FOR LONG/DIF |
| STST13 | 0.64232  | SC'S FEELINGS TOWARD ME CAN BE UNPREDICT |
| STST14 | 0.61573  | SC IS SNEAKY OR MANIPULATIVE WITH ME     |
| STST15 | -0.50846 | SC OPENLY SHARES HIS/HER FEELINGS/EXPERI |

Variance explained by each factor

FACTOR1  
 5.251881

Final Communality Estimates: Total = 5.251881

|          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| STST1    | STST2    | STST3    | STST4R   | STST5    | STST6    | STST7    | STST8    |
| 0.445240 | 0.422368 | 0.335957 | 0.182016 | 0.440090 | 0.249816 | 0.193498 | 0.391798 |
| STST9    | STST10   | STST11   | STST12   | STST13   | STST14   | STST15   |          |
| 0.360982 | 0.384135 | 0.412175 | 0.383574 | 0.412581 | 0.379120 | 0.258531 |          |

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NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10

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EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @15  
 FACTOR LOADINGS FOR ALL 15 ITEMS WITH 1 FACTOR

| <u>NAME</u> | <u>FACTOR1</u> | <u>NF</u> | <u>NAME</u> | <u>LABEL</u>                             |
|-------------|----------------|-----------|-------------|--|
| STST1       | -0.67          | 1         | STST1       | I SHARE AN AFFECTIONATE, WARM RELATIONSH |
| STST2       | 0.65           | 1         | STST2       | SC AND I ALWAYS SEEM TO BE STRUGGLING W/ |
| STST3       | -0.58          | 1         | STST3       | IF UPSET, SC WILL SEEK COMFORT FROM ME   |
| STST4R      | -0.43          | 1         | STST4R      | Q4 Reversed                              |
| STST5       | -0.66          | 1         | STST5       | SC VALUES HIS/HER RELATIONSHIP WITH ME   |
| STST6       | -0.50          | 1         | STST6       | WHEN I PRAISE SC, HE/SHE BEAMS WITH PRID |
| STST7       | -0.44          | 1         | STST7       | SC SPONTANEOUSLY SHARES INFO ABOUT HIM/H |
| STST8       | 0.63           | 1         | STST8       | SC EASILY BECOMES ANGRY AT ME            |
| STST9       | -0.60          | 1         | STST9       | IT IS EASY TO BE IN TUNE W/WHAT SC IS FE |
| STST10      | 0.62           | 1         | STST10      | SC REMAINS ANGRY/RESISTANT AFTER BEING D |
| STST11      | 0.64           | 1         | STST11      | DEALING WITH SC DRAINS MY ENERGY         |
| STST12      | 0.62           | 1         | STST12      | SC WAKES UP IN BAD MOOD, IN FOR LONG/DIF |
| STST13      | 0.64           | 1         | STST13      | SC'S FEELINGS TOWARD ME CAN BE UNPREDICT |
| STST14      | 0.62           | 1         | STST14      | SC IS SNEAKY OR MANIPULATIVE WITH ME     |
| STST15      | -0.51          | 1         | STST15      | SC OPENLY SHARES HIS/HER FEELINGS/EXPERI |
|             |                | ==        |             |  |
|             |                | 15        |             |  |

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NICHD STUDY OF EARLY CHILD CARE  
VARIABLES FROM FORM FS10

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EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @15  
FACTOR LOADINGS FOR ALL 15 ITEMS WITH 2 UNCORRELATED FACTORS (VARIMAX ROTATION)

| <u>NAME</u> | <u>FACTOR1</u> | <u>FACTOR2</u> | <u>NF</u> | <u>NAME</u> | <u>LABEL</u>                             |
|-------------|----------------|----------------|-----------|-------------|--|
| STST1       | .              | 0.68           | 1         | STST1       | I SHARE AN AFFECTIONATE, WARM RELATIONSH |
| STST2       | 0.73           | .              | 1         | STST2       | SC AND I ALWAYS SEEM TO BE STRUGGLING W/ |
| STST3       | .              | 0.70           | 1         | STST3       | IF UPSET, SC WILL SEEK COMFORT FROM ME   |
| STST4R      | .              | 0.48           | 1         | STST4R      | Q4 Reversed                              |
| STST5       | .              | 0.71           | 1         | STST5       | SC VALUES HIS/HER RELATIONSHIP WITH ME   |
| STST6       | .              | 0.68           | 1         | STST6       | WHEN I PRAISE SC, HE/SHE BEAMS WITH PRID |
| STST7       | .              | 0.77           | 1         | STST7       | SC SPONTANEOUSLY SHARES INFO ABOUT HIM/H |
| STST8       | 0.77           | .              | 1         | STST8       | SC EASILY BECOMES ANGRY AT ME            |
| STST9       | .              | 0.73           | 1         | STST9       | IT IS EASY TO BE IN TUNE W/WHAT SC IS FE |
| STST10      | 0.76           | .              | 1         | STST10      | SC REMAINS ANGRY/RESISTANT AFTER BEING D |
| STST11      | 0.81           | .              | 1         | STST11      | DEALING WITH SC DRAINS MY ENERGY         |
| STST12      | 0.77           | .              | 1         | STST12      | SC WAKES UP IN BAD MOOD, IN FOR LONG/DIF |
| STST13      | 0.74           | .              | 1         | STST13      | SC'S FEELINGS TOWARD ME CAN BE UNPREDICT |
| STST14      | 0.71           | .              | 1         | STST14      | SC IS SNEAKY OR MANIPULATIVE WITH ME     |
| STST15      | .              | 0.80           | 1         | STST15      | SC OPENLY SHARES HIS/HER FEELINGS/EXPERI |
|             |                |                | ==        |             |  |
|             |                |                | 15        |             |  |

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NICHD STUDY OF EARLY CHILD CARE  
VARIABLES FROM FORM FS10

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EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @15  
FACTOR LOADINGS FOR ALL 15 ITEMS WITH 3 UNCORRELATED FACTORS (VARIMAX ROTATION)

| <u>_NAME_</u> | <u>FACTOR1</u> | <u>FACTOR2</u> | <u>FACTOR3</u> | <u>NF</u> | <u>_NAME_</u> | <u>_LABEL_</u>                           |
|---------------|----------------|----------------|----------------|-----------|---------------|--|
| STST1         | .              | 0.51           | 0.50           | 2         | STST1         | I SHARE AN AFFECTIONATE, WARM RELATIONSH |
| STST2         | 0.73           | .              | .              | 1         | STST2         | SC AND I ALWAYS SEEM TO BE STRUGGLING W/ |
| STST3         | .              | 0.53           | 0.52           | 2         | STST3         | IF UPSET, SC WILL SEEK COMFORT FROM ME   |
| STST4R        | .              | .              | 0.78           | 1         | STST4R        | Q4 Reversed                              |
| STST5         | .              | 0.54           | 0.49           | 2         | STST5         | SC VALUES HIS/HER RELATIONSHIP WITH ME   |
| STST6         | .              | 0.62           | .              | 1         | STST6         | WHEN I PRAISE SC, HE/SHE BEAMS WITH PRID |
| STST7         | .              | 0.88           | .              | 1         | STST7         | SC SPONTANEOUSLY SHARES INFO ABOUT HIM/H |
| STST8         | 0.75           | .              | .              | 1         | STST8         | SC EASILY BECOMES ANGRY AT ME            |
| STST9         | .              | 0.70           | .              | 1         | STST9         | IT IS EASY TO BE IN TUNE W/WHAT SC IS FE |
| STST10        | 0.75           | .              | .              | 1         | STST10        | SC REMAINS ANGRY/RESISTANT AFTER BEING D |
| STST11        | 0.82           | .              | .              | 1         | STST11        | DEALING WITH SC DRAINS MY ENERGY         |
| STST12        | 0.78           | .              | .              | 1         | STST12        | SC WAKES UP IN BAD MOOD, IN FOR LONG/DIF |
| STST13        | 0.73           | .              | .              | 1         | STST13        | SC'S FEELINGS TOWARD ME CAN BE UNPREDICT |
| STST14        | 0.73           | .              | .              | 1         | STST14        | SC IS SNEAKY OR MANIPULATIVE WITH ME     |
| STST15        | .              | 0.85           | .              | 1         | STST15        | SC OPENLY SHARES HIS/HER FEELINGS/EXPERI |
|               |                |                |                | ==        |               |  |
|               |                |                |                | 18        |               |  |

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NICHD STUDY OF EARLY CHILD CARE  
 VARIABLES FROM FORM FS10 AND KTST  
 Intercorrelations For All Children

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## Correlation Analysis

3 'WITH' Variables: CNFL\_TKF CLSN\_TKF TPRES\_TKF  
 3 'VAR' Variables: CNFL\_T1S CLSN\_T1S TPRES\_T1S

## Simple Statistics

| Variable  | N    | Mean     | Std Dev | Sum   | Minimum  | Maximum  | Label                                    |
|-----------|------|----------|---------|-------|----------|----------|--|
| CNFL_TKF  | 1006 | 10.60189 | 5.36392 | 10666 | 7.00000  | 34.00000 | Teacher: Conflict w/ SC @KF: w/ PrpWt    |
| CLSN_TKF  | 1006 | 34.22991 | 5.33942 | 34435 | 15.00000 | 40.00000 | Teacher: Closeness w/ SC @KF: w/ PrpWt   |
| TPRES_TKF | 1006 | 65.62768 | 8.55204 | 66021 | 31.00000 | 75.00000 | Teacher: Tot Pos Rel w/ SC @KF: w/ PrpWt |
| CNFL_T1S  | 1007 | 10.92039 | 5.17285 | 10997 | 7.00000  | 35.00000 | Teacher: Conflict w/ SC @1S: w/ PrpWt    |
| CLSN_T1S  | 1006 | 33.96464 | 5.04443 | 34168 | 12.00000 | 40.00000 | Teacher: Closeness w/ SC @1S: w/ PrpWt   |
| TPRES_T1S | 1007 | 65.04071 | 8.16335 | 65496 | 28.00000 | 75.00000 | Teacher: Tot Pos Rel w/ SC @1S: w/ PrpWt |

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / Number of Observations

|  | CNFL_T1S | CLSN_T1S | TPRES_T1S |
|--|----------|----------|-----------|
| CNFL_TKF                                 | 0.39875  | -0.09045 | -0.30858  |
| Teacher: Conflict w/ SC @KF: w/ PrpWt    | 0.0001   | 0.0053   | 0.0001    |
|  | 950      | 949      | 950       |
| CLSN_TKF                                 | -0.08091 | 0.30868  | 0.24396   |
| Teacher: Closeness w/ SC @KF: w/ PrpWt   | 0.0126   | 0.0001   | 0.0001    |
|  | 950      | 949      | 950       |
| TPRES_TKF                                | -0.30053 | 0.24666  | 0.34408   |
| Teacher: Tot Pos Rel w/ SC @KF: w/ PrpWt | 0.0001   | 0.0001   | 0.0001    |
|  | 950      | 949      | 950       |

Source: S:\SECC\PODS\SCH\WORG1\SC009\_01.SAS

## Appendix B

1

The SAS System

15:56 Tuesday, June 20, 2000

NOTE: Copyright (c) 1989-1996 by SAS Institute Inc., Cary, NC, USA.

NOTE: SAS (r) Proprietary Software Release 6.12 TS060

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```

1      %LET SOURCE = S:\SECC\PODS\SCH\WOKG1\SC009_01.SAS;
2      options ps=79 ls=130 NOCENTER source2 mprint;
3      /*****
4      /* PROGRAMMER: Norma Pugh */
5      /* DATE CREATED: 02/14/00 */
6      /* DATE REVISED: 06/20/00 Re-run since home-schoolers have been */
7      /* deleted. */
8      /* PURPOSE: Creates three scores from the FSV10G1.SD2 file per */
9      /* Work Order Request #9 on 01/26/00. */
10     /* PROC MEANS on all variables, PROC UNIVARIATE and */
11     /* PROC CORR on composite variables. Also factor analys*/
12     /*****/
13     %LET PGM=S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS;
14     %LET RDS=FFS10_01;
15     %LET FORM=FS10;
16     %LET PGM54=S:\SECC\PODS\SCH\WOKG1\KTST_01.SAS;
17
18     title1 "NICHD STUDY OF EARLY CHILD CARE";
19     footnote1 "Source: &SOURCE";
20
21     /* INCLUDE CODE FOR CREATING VARIABLES */
22     %include "&pgm";
NOTE: %INCLUDE (level 1) file S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS is file S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS.
23     +**%LET SOURCE = S:\SECC\PODS\SCH\WOKG1\FS10_01.SAS;
24     +/*****/
25     +/* PROGRAMMER: Norma Pugh */
26     +/* DATE CREATED: 02/14/00 */
27     +/* PURPOSE: Creates three scores from the FSV10G1.SD2 file per */
28     +/* Work Order Request #9 on 01/26/00. */
29     +/*****/
30     +
31     +LIBNAME slib V612 "S:\SECC\SD2";
NOTE: Libref SLIB was successfully assigned as follows:
Engine: V612
Physical Name: S:\SECC\SD2
32     +
33     +/* STUDENT-TEACHER RELATIONSHIP @FIRST GRADE SPRING - SHORT FORM - FORM FS10 */
34     +
35     +data ffs10_01;
36     +set slib.fsv10g1;
37     +
38     +/* REFLECT RESPONSE VALUES FOR ITEMS 2,4,8,10,11,12,13,14 */
39     +array item{8} stst2 stst4 stst8 stst10 stst11 stst12 stst13 stst14;
40     +array itemr{8} stst2r stst4r stst8r stst10r stst11r stst12r stst13r stst14r;
41     +
42     +do i=1 to 8;
43     + itemr{i}=6-item{i};
44     +end;
45     +drop i;
46     +
47     +/* Create conflict variable CNFL_ w/o proportional weighting */
48     +/* CNFL_ is the sum of items 2,8,10,11,12,13,14 for cases with complete data */
49     +cnfl_=stst2 + stst8 + stst10 + stst11 + stst12 + stst13 + stst14;
50     +
51     +/* Create conflict variable CNFL_T1S using proportional weighting */
52     +n_cnflc= n(stst2, stst8, stst10, stst11, stst12, stst13, stst14);
53     +s_cnflc=sum(stst2, stst8, stst10, stst11, stst12, stst13, stst14);
54     +if n_cnflc/7>=.80 then cnfl_t1s=(7/n_cnflc)*s_cnflc;
55     +drop n_cnflc s_cnflc;
56     +
57     +/* Create closeness variable CLSN_ w/o proportional weighting */
58     +/* CLSNS is the sum of items 1,3,4r,5,6,7,9,15 for cases with complete data */
59     +clsn_=stst1 + stst3 + stst4r + stst5 + stst6 + stst7 + stst9 + stst15;
60     +
61     +/* Create closeness variable CLSN_T1S using proportional weighting */
62     +n_clsns= n(stst1, stst3, stst4r, stst5, stst6, stst7, stst9, stst15);
63     +s_clsns=sum(stst1, stst3, stst4r, stst5, stst6, stst7, stst9, stst15);
64     +if n_clsns/8>=.80 then clsn_t1s=(8/n_clsns)*s_clsns;
65     +drop n_clsns s_clsns;
66     +
67     +/* Create total positive relationship variable TPRES_ w/o proportional weighting */

```

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```

68      /* TPREL is the sum of items 1,2r,3,4r,5,6,7,8r,9,10r,11r,12r,13r,14,15 */
69      /* for cases with complete data */
70      +tpre=stst1 + stst2r + stst3 + stst4r + stst5 + stst6 + stst7 + stst8r +
71      +      stst9 + stst10r + stst11r + stst12r + stst13r + stst14r + stst15;
72      +
73      /* Create total positive relationship variable TPRES_T1S using proportional weighting */
74      +n_tprel= n(stst1, stst2r, stst3, stst4r, stst5, stst6, stst7, stst8r,
75      +      stst9, stst10r, stst11r, stst12r, stst13r, stst14r, stst15);
76      +s_tprel=sum(stst1, stst2r, stst3, stst4r, stst5, stst6, stst7, stst8r,
77      +      stst9, stst10r, stst11r, stst12r, stst13r, stst14r, stst15);
78      +if n_tprel/15>=.80 then tpre_t1s=(15/n_tprel)*s_tprel;
79      +drop n_tprel s_tprel;
80      +
81      +label
82      + stst2r   = 'Q2 Reversed'
83      + stst4r   = 'Q4 Reversed'
84      + stst8r   = 'Q8 Reversed'
85      + stst10r  = 'Q10 Reversed'
86      + stst11r  = 'Q11 Reversed'
87      + stst12r  = 'Q12 Reversed'
88      + stst13r  = 'Q13 Reversed'
89      + stst14r  = 'Q14 Reversed'
90      + cnfl_    = 'Teacher: Conflict w/ SC @1S: w/o PrpWt'
91      + cnfl_t1s = 'Teacher: Conflict w/ SC @1S: w/ PrpWt'
92      + clsn_    = 'Teacher: Closeness w/ SC @1S: w/o PrpWt'
93      + clsn_t1s = 'Teacher: Closeness w/ SC @1S: w/ PrpWt'
94      + tpre_    = 'Teacher: Tot Pos Rel w/SC @1S: w/o PrpWt'
95      + tpre_t1s = 'Teacher: Tot Pos Rel w/ SC @1S: w/ PrpWt'
96      + ;
97      +run;

```

NOTE: Missing values were generated as a result of performing an operation on missing values.

Each place is given by: (Number of times) at (Line):(Column).

|             |             |             |             |            |            |            |            |
|-------------|-------------|-------------|-------------|------------|------------|------------|------------|
| 7 at 43:14  | 1 at 49:13  | 3 at 49:21  | 3 at 49:30  | 5 at 49:39 | 5 at 49:48 | 6 at 49:57 | 4 at 59:13 |
| 4 at 59:21  | 4 at 59:30  | 4 at 59:38  | 5 at 59:46  | 6 at 59:54 | 7 at 59:62 | 3 at 70:13 | 4 at 70:22 |
| 4 at 70:30  | 4 at 70:39  | 4 at 70:47  | 5 at 70:55  | 6 at 70:63 | 7 at 70:72 | 9 at 71:13 | 9 at 71:23 |
| 11 at 71:33 | 11 at 71:43 | 12 at 71:53 | 13 at 71:63 |            |            |            |            |

NOTE: The data set WORK.FPS10\_01 has 1007 observations and 43 variables.

NOTE: The DATA statement used 0.48 seconds.

NOTE: %INCLUDE (level 1) ending.

```

98
99      proc means data=&rds MAXDEC=2 FW=9 N MEAN STD MIN MAX SKEWNESS KURTOSIS NMISS;
100     title2 "VARIABLES FROM FORM &form";
101     run;

```

NOTE: The PROCEDURE MEANS printed page 1.

NOTE: The PROCEDURE MEANS used 0.11 seconds.

```

102     /*
103     proc corr alpha nomiss nocorr data=&rds;
104     var stst2 stst8 stst10 stst11 stst12 stst13 stst14;
105     title3 "ITEMS USED TO CREATE CNFL_T1S";
106     run;
107
108     proc corr alpha nomiss nocorr data=&rds;
109     var stst1 stst3 stst4r stst5 stst6 stst7 stst9 stst15;
110     title3 "ITEMS USED TO CREATE CLSN_T1S";
111     run;
112
113     proc corr alpha nomiss nocorr data=&rds;
114     var stst1 stst2r stst3 stst4r stst5 stst6 stst7 stst8r stst9 stst10r stst11r
115     stst12r stst13r stst14r stst15;
116     title3 "ITEMS USED TO CREATE TPRES_T1S";
117     run;
118     */
119     proc univariate plot normal data=&rds; id id;
120     var cnfl_t1s clsn_t1s tpre_t1s;
121     title2 "VARIABLES FROM FORM &form";
122     run;

```

NOTE: The PROCEDURE UNIVARIATE printed pages 2-4.

NOTE: The PROCEDURE UNIVARIATE used 0.05 seconds.

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```

123
124     proc corr nosimple data=&rds;
125     var cnfl_t1s clsn_t1s tpre_t1s;
126     run;

```

NOTE: The PROCEDURE CORR printed page 5.  
NOTE: The PROCEDURE CORR used 0.05 seconds.

```

127
128     /** FACTOR ANALYSIS **/
129     %include "s:\secc\ccdr2\sasmacs\factor.mac";
NOTE: %INCLUDE (level 1) file s:\secc\ccdr2\sasmacs\factor.mac is file s:\secc\ccdr2\sasmacs\factor.mac.
130     +**%let source=s:\secc\ccdr2\sasmacs\factor.mac;
131     +options nosource2;
221     +

```

NOTE: %INCLUDE (level 1) ending.

```

222
223     %_factor(&rds,stst1 stst2 stst3 stst4r stst5 stst6 stst7 stst8 stst9 stst10
224             stst11 stst12 stst13 stst14 stst15, 15, 3,
225             STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @1S);
MPRINT(_FACTOR):  OPTIONS MPRINT;
MPRINT(_FACTOR):  PROC FACTOR DATA=FFS10_01 OUTSTAT=NFACT1 SCREE NFACT=1 ;
MPRINT(_FACTOR):  VAR STST1 STST2 STST3 STST4R STST5 STST6 STST7 STST8 STST9 STST10 STST11 STST12 STST13 STST14 STST15;
MPRINT(_FACTOR):  TITLE3 "EXPLORATORY FACTOR ANALYSIS OF STUDENT-TEACHER RELATIONSHIP SCALE: SHORT FORM @1S";
MPRINT(_FACTOR):  TITLE4 "WITH 1 FACTOR";
MPRINT(_FACTOR):  RUN;
WARNING: 13 of 1007 observations in data set WORK.FFS10_01 omitted due to missing values.
NOTE: 1 factors will be retained by the NFACTOR criterion.
NOTE: The data set WORK.NFACT1 has 22 observations and 17 variables.
NOTE: The PROCEDURE FACTOR printed pages 6-8.
NOTE: The PROCEDURE FACTOR used 0.33 seconds.

```

```

MPRINT(_FACTOR):  DATA NFACT1;
MPRINT(_FACTOR):  SET NFACT1;
MPRINT(_FACTOR):  IF _TYPE_="PATTERN";
MPRINT(_FACTOR):  ARRAY LOAD{15} STST1 STST2 STST3 STST4R STST5 STST6 STST7 STST8 STST9 STST10 STST11 STST12 STST13 STST14
STST15;
MPRINT(_FACTOR):  DO I=1 TO 15;
MPRINT(_FACTOR):  IF ABS(LOAD{I})>.4 THEN LOAD{I}=ROUND(LOAD{I},.01);
MPRINT(_FACTOR):  ELSE LOAD{I}=. ;
MPRINT(_FACTOR):  END;
MPRINT(_FACTOR):  KEEP _NAME_ STST1 STST2 STST3 STST4R STST5 STST6 STST7 STST8 STST9 STST10 STST11 STST12 STST13 STST14 STST15;
MPRINT(_FACTOR):  RUN;

```

NOTE: The data set WORK.NFACT1 has 1 observations and 16 variables.  
NOTE: The DATA statement used 0.05 seconds.

```

MPRINT(_FACTOR):  PROC TRANSPOSE DATA=NFACT1 OUT=LOAD1 PREFIX=FACTOR;
MPRINT(_FACTOR):  RUN;

```

NOTE: The data set WORK.LOAD1 has 15 observations and 3 variables.  
NOTE: The PROCEDURE TRANSPOSE used 0.05 seconds.

```

MPRINT(_FACTOR):  DATA LOAD1;
MPRINT(_FACTOR):  SET LOAD1;
MPRINT(_FACTOR):  NF=N(OFFACTOR1 );
MPRINT(_FACTOR):  FORMAT NF 2.;
MPRINT(_FACTOR):  RUN;

```

NOTE: The data set WORK.LOAD1 has 15 observations and 4 variables.  
NOTE: The DATA statement used 0.05 seconds.

```

MPRINT(_FACTOR):  PROC PRINT DATA=LOAD1;
MPRINT(_FACTOR):  ID _NAME_ ;
MPRINT(_FACTOR):  VAR FACTOR1 NF _NAME_ _LABEL_ ;
MPRINT(_FACTOR):  SUM NF;
MPRINT(_FACTOR):  TITLE4 "FACTOR LOADINGS FOR ALL 15 ITEMS WITH 1 FACTOR";
MPRINT(_FACTOR):  RUN;

```

NOTE: The PROCEDURE PRINT printed page 9.  
NOTE: The PROCEDURE PRINT used 0.05 seconds.



```
MPRINT(_FACTOR): PROC DATASETS;
-----Directory-----
```

```
Libref:          WORK
Engine:          V612
Physical Name:   c:\sas612\saswork\#TD13125
```

```
# Name          Memtype  Indexes
-----
```

```
1 FFS10_01  DATA
2 LOAD1     DATA
3 NFACT1    DATA
4 SASMACR   CATALOG
```

```
MPRINT(_FACTOR): DELETE NFACT1 LOAD1;
MPRINT(_FACTOR): RUN;
```

```
NOTE: Deleting WORK.NFACT1 (memtype=DATA).
NOTE: Deleting WORK.LOAD1 (memtype=DATA).
MPRINT(_FACTOR): OPTIONS NOMPRINT;
```

```
NOTE: The PROCEDURE DATASETS used 0.05 seconds.
```

```
WARNING: 13 of 1007 observations in data set WORK.FFS10_01 omitted due to missing values.
NOTE: 2 factors will be retained by the NFACTOR criterion.
NOTE: The data set WORK.NFACT2 has 27 observations and 17 variables.
NOTE: The PROCEDURE FACTOR used 0.0 seconds.
```

```
NOTE: The data set WORK.NFACT2 has 2 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.
```

```
NOTE: The data set WORK.LOAD2 has 15 observations and 4 variables.
NOTE: The PROCEDURE TRANSPOSE used 0.0 seconds.
```

```
NOTE: The data set WORK.LOAD2 has 15 observations and 5 variables.
NOTE: The DATA statement used 0.05 seconds.
```

```
NOTE: The PROCEDURE PRINT printed page 10.
NOTE: The PROCEDURE PRINT used 0.0 seconds.
```

```
-----Directory-----
```

```
Libref:          WORK
Engine:          V612
Physical Name:   c:\sas612\saswork\#TD13125
```

```
# Name          Memtype  Indexes
-----
```

```
1 FFS10_01  DATA
2 LOAD2     DATA
3 NFACT2    DATA
4 SASMACR   CATALOG
```

```
NOTE: Deleting WORK.NFACT2 (memtype=DATA).
NOTE: Deleting WORK.LOAD2 (memtype=DATA).
```

```
NOTE: The PROCEDURE DATASETS used 0.0 seconds.
```

```
WARNING: 13 of 1007 observations in data set WORK.FFS10_01 omitted due to missing values.
NOTE: 3 factors will be retained by the NFACTOR criterion.
NOTE: The data set WORK.NFACT3 has 30 observations and 17 variables.
NOTE: The PROCEDURE FACTOR used 0.05 seconds.
```

```
NOTE: The data set WORK.NFACT3 has 3 observations and 16 variables.
```

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NOTE: The DATA statement used 0.0 seconds.

NOTE: The data set WORK.LOAD3 has 15 observations and 5 variables.

NOTE: The PROCEDURE TRANSPOSE used 0.05 seconds.

NOTE: The data set WORK.LOAD3 has 15 observations and 6 variables.

NOTE: The DATA statement used 0.05 seconds.

NOTE: The PROCEDURE PRINT printed page 11.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

-----Directory-----

```

Libref:      WORK
Engine:      V612
Physical Name: c:\sas612\saswork\#TD13125

```

```

# Name      Memtype  Indexes
-----
1  FFS10_01  DATA
2  LOAD3     DATA
3  NFACT3    DATA
4  SASMACR   CATALOG

```

NOTE: Deleting WORK.NFACT3 (memtype=DATA).

NOTE: Deleting WORK.LOAD3 (memtype=DATA).

```

226
227      /*** Include Code For Creating 54 Month Variables ***/
228      %include "&pgm54";
NOTE: %INCLUDE (level 1) file S:\SECC\PODS\SCH\WOKG1\KTST_01.SAS is file S:\SECC\PODS\SCH\WOKG1\KTST_01.SAS.
229      +***%LET SOURCE = S:\SECC\PODS\SCH\WOKG1\KTST_01.SAS;
230      +/*****/
231      +/* PROGRAMMER: Norma Pugh */
232      +/* DATE CREATED: 02/14/00 */
233      +/* PURPOSE: Creates three scores from the FKTST.SD2 file per */
234      +/* Work Order Request #3 on 01/26/00. */
235      +/*****/
236      +
237      +LIBNAME slib V612 "S:\SECC\SD2";
NOTE: Libref SLIB was successfully assigned as follows:
Engine:      V612
Physical Name: S:\SECC\SD2
238      +
239      +/* STUDENT-TEACHER RELATIONSHIP @ KF - SHORT FORM - FORM KTST */
240      +

```

NOTE: The PROCEDURE DATASETS used 0.0 seconds.

```

241      +data fktst_01;
242      +set slib.fktst;
243      +
244      +/* REFLECT RESPONSE VALUES FOR ITEMS 2,4,8,10,11,12,13,14 */
245      +array item{8} ktst2 ktst4 ktst8 ktst10 ktst11 ktst12 ktst13 ktst14;
246      +array itemr{8} ktst2r ktst4r ktst8r ktst10r ktst11r ktst12r ktst13r ktst14r;
247      +
248      +do i=1 to 8;
249      +   itemr{i}=6-item{i};
250      +end;
251      +drop i;
252      +
253      +/* Create conflict variable CNFL_ w/o proportional weighting */
254      +/* CNFL_ is the sum of items 2,8,10,11,12,13,14 for cases with complete data */
255      +cnfl_ = ktst2 + ktst8 + ktst10 + ktst11 + ktst12 + ktst13 + ktst14;
256      +
257      +/* Create conflict variable CNFL_TKF using proportional weighting */
258      +n_cnflc = n(ktst2, ktst8, ktst10, ktst11, ktst12, ktst13, ktst14);
259      +s_cnflc = sum(ktst2, ktst8, ktst10, ktst11, ktst12, ktst13, ktst14);
260      +if n_cnflc/7 >= .80 then cnfl_tkf = (7/n_cnflc)*s_cnflc;
261      +drop n_cnflc s_cnflc;

```

```

262 +
263 /* Create closeness variable CLSN_ w/o proportional weighting */
264 /* CLSNS is the sum of items 1,3,4r,5,6,7,9,15 for cases with complete data */
265 +clsn_ = ktst1 + ktst3 + ktst4r + ktst5 + ktst6 + ktst7 + ktst9 + ktst15;
266 +
267 /* Create closeness variable CLSN_TKF using proportional weighting */
268 +n_clsns = n(ktst1, ktst3, ktst4r, ktst5, ktst6, ktst7, ktst9, ktst15);
269 +s_clsns = sum(ktst1, ktst3, ktst4r, ktst5, ktst6, ktst7, ktst9, ktst15);
270 +if n_clsns/8 >=.80 then clsn_tkf = (8/n_clsns)*s_clsns;
271 +drop n_clsns s_clsns;
272 +
273 /* Create total positive relationship variable TPRE_ w/o proportional weighting */
274 /* TPREL is the sum of items 1,2r,3,4r,5,6,7,8r,9,10r,11r,12r,13r,14r,15 */
275 /* for cases with complete data */
276 +tpre_ = ktst1 + ktst2r + ktst3 + ktst4r + ktst5 + ktst6 + ktst7 + ktst8r +
277 + ktst9 + ktst10r + ktst11r + ktst12r + ktst13r + ktst14r + ktst15;
278 +
279 /* Create total positive relationship variable TPRE_TKF using proportional weighting */
280 +n_tprel = n(ktst1, ktst2r, ktst3, ktst4r, ktst5, ktst6, ktst7, ktst8r,
281 + ktst9, ktst10r, ktst11r, ktst12r, ktst13r, ktst14r, ktst15);
282 +s_tprel = sum(ktst1, ktst2r, ktst3, ktst4r, ktst5, ktst6, ktst7, ktst8r,
283 + ktst9, ktst10r, ktst11r, ktst12r, ktst13r, ktst14r, ktst15);
284 +if n_tprel/15 >=.80 then tpre_tkf = (15/n_tprel)*s_tprel;
285 +drop n_tprel s_tprel;
286 +
287 +label
288 + ktst2r = 'Q2 Reversed'
289 + ktst4r = 'Q4 Reversed'
290 + ktst8r = 'Q8 Reversed'
291 + ktst10r = 'Q10 Reversed'
292 + ktst11r = 'Q11 Reversed'
293 + ktst12r = 'Q12 Reversed'
294 + ktst13r = 'Q13 Reversed'
295 + ktst14r = 'Q14 Reversed'
296 + cnfl_ = 'Teacher: Conflict w/ SC @KF: w/o PrpWt'
297 + cnfl_tkf = 'Teacher: Conflict w/ SC @KF: w/ PrpWt'
298 + clsn_ = 'Teacher: Closeness w/ SC @KF: w/o PrpWt'
299 + clsn_tkf = 'Teacher: Closeness w/ SC @KF: w/ PrpWt'
300 + tpre_ = 'Teacher: Tot Pos Rel w/SC @KF: w/o PrpWt'
301 + tpre_tkf = 'Teacher: Tot Pos Rel w/ SC @KF: w/ PrpWt'
302 + ;
303 +run;

```

NOTE: Missing values were generated as a result of performing an operation on missing values.

Each place is given by: (Number of times) at (Line):(Column).

|              |              |              |              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 15 at 249:14 | 1 at 255:13  | 3 at 255:21  | 5 at 255:30  | 8 at 255:39  | 8 at 255:48  | 8 at 255:57  | 3 at 265:13  |
| 6 at 265:21  | 7 at 265:30  | 7 at 265:38  | 8 at 265:46  | 10 at 265:54 | 10 at 265:62 | 2 at 276:13  | 4 at 276:22  |
| 7 at 276:30  | 8 at 276:39  | 8 at 276:47  | 9 at 276:55  | 9 at 276:63  | 11 at 276:72 | 12 at 277:13 | 13 at 277:23 |
| 16 at 277:33 | 16 at 277:43 | 16 at 277:53 | 16 at 277:63 |              |              |              |              |

NOTE: The data set WORK.FKTST\_01 has 1007 observations and 40 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: %INCLUDE (level 1) ending.

```

304
305 data all;
306 merge ffs10_01 fktst_01;
307 by id;
308 run;

```

NOTE: The data set WORK.ALL has 1063 observations and 78 variables.

NOTE: The DATA statement used 0.11 seconds.

```

309
310 proc corr data=all;
311 var cnfl_t1s clsn_t1s tpre_t1s;
312 with cnfl_tkf clsn_tkf tpre_tkf;
313 title2"VARIABLES FROM FORM FS10 AND KTST";
314 title3"Intercorrelations For All Children";
315 run;

```

NOTE: The PROCEDURE CORR printed page 12.

NOTE: The PROCEDURE CORR used 0.05 seconds.

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

## Appendix C

Form FS10, Student-Teacher Relationship Scale: Short Form  
(See list of forms in Project Web Site)