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The Peer-Nomination Scales for Children

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This 26 item measure contains seven (7) substantive scales assessing a child's social behavior from the perceptions of the child's peers. The scales are *aggressive behavior*, *prosocial behavior*, *popularity*, *rejection by peers*, *victimization*, *hyperactivity*, and *avoidance of aggression*. Each item on each scale is of the form, "Who does ...?" For example, "Who pushes or shoves children?" A child's score on a scale represents the proportion of times the child was nominated by his/her peers on items on the scale out of the total number of times the child could have been nominated. Thus, all scores range from 0 to 1. Since each peer can only nominate or not nominate a child on an item, the total number of times a child could be nominated is always the total number of peers interviewed times the number of items on the scale, e.g. 300 for 30 peers and 10 items on a scale. Because "all or none" nominations are used, the scales are also less sensitive to distortions produced by a single peer who responses are biased than would be scales using peer-ratings.

The peer group used to evaluate a child should know the child well. Most often the measure has been used within school classrooms to obtain scores for each child. A typical peer group size would be 25 in such a case. The reliability of the scores obtained depends mostly on the number of peers doing the evaluation. Generally, one should be skeptical of scores obtained when the number of nominators is less than 10 as each peer is contributing 10% of the variance or more, and a single peer's responses have too much weight. The technique can also be used outside the classroom. One technique involves first asking each nominator whom they know "well" from the list of subjects. They are then allowed to nominate only those subjects they said that they knew on each question.

The items comprising each scale are shown at the end of this document along with a typical set of instructions used in an elementary school classroom. In addition, the reliabilities of each scale are shown. Since the aggression scale is the most commonly used scale, more information will be given about it.

Aggression Scale

This has been the most widely used scale, and it will be discussed in more detail. This 10-item scale was derived (See Eron, L.D., Walder, L.O., & Lefkowitz, M.M., 1971; Walder, et al., 1961;) from an initial scale that contained 106 items with face validity as measures of aggression. In this context aggression is defined as "an act intended to injure or irritate another person." However, the scale does not assess intentionality, as preliminary studies revealed that young children were unable to assess intentionality accurately. Instead, the assumption was adopted that high scores on behaviors that injured and irritated would suffice to imply intentionality. The goal in creating the measure was to combine certain elements to create one aggression index, unlike the other segmented measures. The scale looks at different types of aggression, different aggression objects and differing levels of provocation. The initial items

were taken from brief descriptions of typical eight-year old behaviors derived from interviews with psychologists, guidance counselors, teachers, social workers, psychiatrists and mothers.

Peer Nomination Items

General Items
1. Who are you?
2. Who are the children who always sit around you?

Aggression Items
1. Who does not obey the teacher?
2. Who often says "Give me that!"?
3. Who gives dirty looks or sticks out their tongue at other children?
4. Who makes up stories and lies to get other children in trouble?
5. Who does things that bother others?
6. Who starts a fight over nothing?
7. Who pushes or shoves children?
8. Who is always getting into trouble?
9. Who says mean things?
10. Who takes other children's things without asking?

Avoidance of Aggression Items
1. Who says "Excuse me" even when they have not done anything bad?
2. Who will never fight even when picked on?

Prosocial Items
1. Who gets along well with others?
2. Who likes to share with others?
3. Who helps other kids?
4. Who does nice things to help other people?

Popularity Items
1. Who would you like to sit next to in class?
2. Who are the children you would like to have for your best friends?

Rejection Items
1. Who are the children who are usually chosen last to join in group activities?
2. Who are the children that you really don't like?

Victimization Items
1. Who gets picked on by other kids?
2. Who gets hit and pushed by other kids?

Hyperactivity Items
1. Who gets out of their seat a lot?
2. Who wiggles or moves around in their seat a lot?

Administration of Peer-nominations

The measure is administered to the children by classroom, and they are seated in alternate rows of boys and girls. The children are informed of their answers' confidentiality and told they will receive a prize if they cooperate. The proctor proceeds to ask the questions out loud as the children write down their answers on their own paper. All the questions ask for specific names of their classmates, in a form such as--"Who pushes or shoves other children?"

Response Choices: There is a separate page for each question. The pages are colored differently; so one can tell that all children are on the same page. Each page has a list of the girls names in the class, one per line, ending with the words, "NO GIRL," followed by a list of the boys names in the class, one per line, ending with the words, "NO BOY."

Instructions: "We are going to ask you to do a number of things for us today. These things are not tests. We just want to know how you feel about some things. All of the answers you give us today will be a secret between you and us. You will know your answers and we will know you answers, but no one else in your class will know, not even the teacher. Now, there are some rules we have for today, and if you follow these rules you get a prize. The first rule is: don't talk to other children while you are doing these things. Second rule: don't shout your answers; we don't want you to tell anyone your answer. Third rule: don't look at other children's papers or answers. Fourth rule: don't turn any pages until we tell you to. Once again, the rules are (repeat them). You get a prize if you follow these rules." (Tootsie Rolls)

The proctor passes out the booklets with the questions and a complete list of all the children in the class; it is suggested that the booklet is printed on different color pages for each set of question. This is so the proctor is aware that each child is not moving too quickly or slowly. The children are allowed to mark as many names as they want for each question. The children were asked to cross out at least one entry on the list of classmates, which was possible because there are "no boy" and "no girl" for response choices. Therefore, an unmarked list could be construed as a result of carelessness.

Typical order of presenting items

1. (Blue)   Who are you?
2. (Yellow)   Who are the children who always sit around you?
3. (Pink)   Who would you like to sit next to in class?
4. (Green)   Who likes to share with others?
5. (White)   Who does not obey the teacher?
6. (Blue)   Who often says "Give me that!"?
7. (Yellow)   Who gets along well with others?
8. (Pink)   Who are the children who are usually chosen last to join in group activities?
9. (Green)   Who gets picked on by other kids?
10.(White)   Who gets out of their seat a lot?
11.(Blue)   Who gives dirty looks or sticks out their tongues at other children?
12.(Yellow) Who makes up stories and lies to get other children in trouble?
13.(Pink)   Who does things that bother other children?
14.(Green)   Who helps other kids?
15.(White)   Who are the children you would like to have for your best friends?

16.(Blue)   Who are the children that you really don't like?
17.(Yellow)   Who wiggles or moves around in their seat a lot?
18.(Pink)   Who gets hit and pushed by other kids?
19.(Green)   Who starts a fight over nothing?
20.(White)   Who pushes or shoves other children?
21.(Blue)   Who is always getting into trouble?
22.(Yellow)   Who says mean things?
23.(Pink)   Who takes other children's things without asking?
24.(Green)   Who does nice things to help other people?
25.(White)   Who says "Excuse me" even when they have not done anything bad?
26.(Blue)   Who will never fight even when picked on?

<u>Scoring:</u> The aggression score of each child is based on the number of children who chose a given child as fitting a particular behavior description. For example, if Sue is listed by 5 of her classmates as a person who says mean things, her raw score for that item is 5. If she was chosen 20 times for the other items, her total score would be 25. The scores are made into percentages so they can be compared across the classrooms.

A DOS program is available for microcomputers to score peer-nominations. A description of how to prepare data for the program is attached at the end of this memo. The program can be obtained at the above address for a small fee.

Reliability and Validity

The aggression measure has high internal consistency and high test-retrest reliability over one month. This has been confirmed in a large number of studies with different age children in different countries. Only a few will be mentioned here.

1) In a study of samples of 186 to 748 children in five countries, coefficient alpha ranged from .96 to .97 for the 10 item *aggression* scale. In a subsample of about 100 USA children retested after one month, the test-retest correlation was .91 (Huesmann & Eron, 1986, p.32). In these studies internal consistency for the 2-item *popularity* scale ranged from .93 to .92 and for the 2-item *avoidance of aggression* scale from .60 to .84.

2) In a large sample of 1130 inner city USA children, it has also been shown that the reliability is equally high for African-American, Hispanic, and white children (Guerra, Huesmann, Tolan, VanAcker & Eron, 1995). The internal consistencies from this study are displayed below:

Measure	Overall	Gender		Ethnicity			Grade	
		Females	Males	Af-Amer	White	Hisp	2	5
Agg	.97	.97	.98	.97	.98	.97	.97	.98
Pro	.92	.91	.91	.91	.93	.91	.91	.92
Pop	.85	.85	.86	.84	.87	.85	.84	.86
Rej	.92	.92	.93	.93	.96	.89	.90	.94
Vic	.78	.77	.80	.73	.86	.78	.77	.79
Hyp	.89	.88	.90	.89	.89	.90	.88	.90

The aggression measure has been shown to have good validity in numerous studies over the past 30 years. It has been used in over 25 countries in studies with subjects ranging in age from 6 years to 19 years. The references at the end of this memorandum describe some of the most notable studies. The results also reveal that the boys always received higher scores than girls, which is consistent with previous research, hypotheses and teacher and parent observation. Additionally, the substantial agreement of peers' and teachers' judgments, i.e. a correlation of about .67 with the aggression scale of Achenbach's (1986) child-behavior checklist (Huesmann, Eron, & Guerra, 1994). It has been argued that despite the validity and consistency of this measure, researchers really have no evidence that the peer-rating measure is consistent with overt behavior that could be tested. This type of argument is interesting because often peer perceptions may be influenced by others and not completely truthful. So, in order to obtain observational reliability, a laboratory setting using Buss' "aggression machine" which emits noxious sound was set up. The results are really quite interesting, with boys remaining more aggressive in their actions than girls, and this study offered some tangible relation with peer nomination (Eron, Walder, & Lefkowitz, 1971, p.42).

It has also been argued that the aggression scale only measures "rough and tumble play" or "boisterousness." However, Huesmann et al. (1984) has shown that peer-nominations of aggression are good longitudinal predictors of real violent and antisocial behavior.

References

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PEER NOMINATION Scoring Program
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This program computes peer nomination scores for a variety of scales. It is assumed that the input consists of 80 character records that are GROUPED BY CLASS and grouped BY RATERID WITHIN CLASS and SORTED BY ITEM # WITHIN RATER.

Each record contains the ID numbers of the people a rater nominated in response to one question. Thus, for any rater who performs the task, there should be QN records where QN is the number of questions. If a rater does not provide any nominations for a question, there need not be a record for that question. However, there must be at least one record for every subject on the class list even if they do not do the ratings; so a score can be computed for them. For these subjects, a record for Question 1 ("Who are you?") should be included without any ID as an answer. Thus, if there is a response to Question 1, it will mean that the person was present as a rater.

Input

The format for a record is: COL   CONTENTS
    1-2   Item #
    3-64   IDs of nominated subjects with leading zeros
          (2 digit, 3 digit or 4 digit
          depending on version. There
          are no spaces between IDs.)
    65   blank
    66-70 ID code of rater with leading zeros
    71   blank
    72-73 School Code
    74   Grade Code
    75-77 Class Code
    78-80 Other information

The program detects the end of a classes' nominations when the 3 digit class code changes in any way and detects the end of one rater's nominations when the raterid changes.}

At the very end of the input file, there must be a blank record!

Output

The program produces two output files. You are asked to supply the name of the main output file on which the peer-nomination scores will be written. The other output file is named C:\TEMP\PEERERR.OUT and contains information that will help you find errors in the input data.

The **main output file** will contain 3 records for each person in the class. Each record will contain the ID block for that person in Columns 1-16 and output data in columns 21-80.

On Record 1 in 2 digit fields from Column 21 to 70 (e.g. 21-22,23-24,etc) will be the raw nomination scores for the 25 items. In Columns 71-72 will be the number of raters in the person's class.

On Record 2 in (6,2) digit fields (e.g., xxx.xx) from Column 21 to 62 will be the scale scores for AGG, PRO, POP, REJ, VIC, HYP and FRIEND in that order. Each scale score is the sum of the item scores for that scale divided by both the number of items and number of raters.

On Record 3 in 6 character fields from Column 21 to 38 will be the IDs of the individuals that this rater selected as his/her 3 best friends.

If a set of records appears in this main output file without any ID block information except a person's ID, it means that that person was nominated but that no Item 1 input record for that person existed. Thus, an error has occurred. Perhaps, you forget to enter the Item 1 input record, or perhaps a non-existent ID was nominated. If the ID is non-existent, you can use the error output file to help locate where the error occurred.

The **error** output file contains a list of all the IDs that appeared in the nominated fields of the raw data along with the ID of the rater who first nominated that person and the item on which they were nominated. This is useful for finding errors in the raw data.