School-Observations--MOOSES/ASKER

Grade 1 / Year 2
Fast Track Project Technical Report
Cynthia Rains / José Miguel Sandoval
July 10, 2011

Table of Contents

Citation

Instruments

Tapp, J.T., Wehby, J.H., & Ellis, D.N. (1995). A multiple option observation system for experimental studies: MOOSES. Behavior Research Methods, Instruments and Computers, 27, 25-31.

Tapp, J. & Fiel, D. (1995). *ASKER program*. Unpublished software program. Nashville, TN: Vanderbilt University.

Tapp, J., & Wehby, J. (2000). Observational software for laptop computers and optical bar code time wands. In T. Thompson, D. Felce, & F. Symons (Eds.) *Behavioral observation: Computer assisted innovations and applications in developmental disabilities*. (Pp. 71-81). Paul H. Brookes.

Reports

Rains, C., Sandoval, J.M. (2011). *School Observation—MOOSES/ASKER Year 2.* (Fast Track Project Technical Report). Available from the Fast Track Project website: http://www.fasttrackproject.org/

Wehby, J. (1996). *School Observation*. (Fast Track Project Technical Report). Nashville, TN: Vanderbilt University.

Data Sources

Raw: *O2F*

Scored: *COB2*

I. Scale Description

The School Observation measures were developed for the Fast Track Project for real-time collection of target children's interactions with their teachers and peers. The measures assess the frequency and duration of interactions with peers and teachers as well as the valence of those interactions (i.e. positive or negative). In addition, measures of on-task behavior and the type of activity in which the child participated were recorded. The school observation data was collected using laptops and the Multi-Option Observation System for Experimental Studies (MOOSES). This data was collected across four 30-minute sessions, two of which were in unstructured environments (i.e. lunch, recess) and two of which were during structured class time, for a total of two hours for each child. Observation sessions were conducted on four separate days with no more than two sessions conducted during a week period. For the most part, no child was observed on consecutive days.

Post-observation ratings (ASKER) were collected on the quality of the child's general school behavior (Social Health Profile—36 questions), the child's use of affect (the Minnesota Affective Rating Form—38 questions), and the general classroom ecology (the Classroom Atmosphere Ratings—10 questions). These post-observation ratings were completed after each 30-minute observation. In addition, once four observations were completed for a child, a fifth "ASKER" was completed in which the observer rated the child on each item based on his/her impressions across the four observation periods.

II. Report Sample

These exploratory analyses were conducted on the first cohort on the high-risk Control (n = 155) from the second year of the study. There were no Normative sample students, except for the overlap. Seven records were missing the complete measure. The missing records from the Control sample were as follows: 4 from Durham and 3 from Washington. These numbers reflect overlap between the Control and Normative students.

III. Scaling

For all MOOSES variables, data were pooled by activity type (structured/unstructured). That is, all structured sessions were collapsed to determine the total frequency and duration of each event code observed during the structured activities. The same process was used for the unstructured sessions. Following the pooling of sessions, MOOSES variables were calculated on two dimensions. First, the *rate per minute* of each event code was calculated separately for structured and unstructured conditions. *Rate per minute* was calculated by taking the frequency of each event code and dividing it by the total number of minutes a child was observed during structured and unstructured sessions. Using *rate per minute* as one of the dimensions was necessary since the amount of time each child was observed during each activity was different. The second dimension calculated for MOOSES was *percent time*. *Percent time* was calculated by taking the total duration (seconds) of each event code and dividing it by the duration of activity type (structured/unstructured).

For all ASKER variables, data were collapsed across the four sessions and the fifth ASKER. That is, the mean score for each item was calculated and these mean scores were used in the development of the subscales. Subscale scores were created for two of the inventories from the ASKER post-observation ratings. For the Minnesota Affective Rating Form, four subscales were calculated: *Positive Adjustment, Positive Affect, Social Withdrawal, and Negative Aggression/Affect*. Three subscales were calculated for the Social Health Profile: *Authority Acceptance, Cognitive Concentration, and Social Contact*. The Classroom Atmosphere Ratings items were not included in any subscales. These subscales are discussed briefly below and then summarized in the following table.

The *Positive Adjustment* subscale includes whether the child shows pride, helping behavior and empathy. *The Positive Affect* subscale includes whether the child shows positive affect to initiate contact, whether the child shows ongoing high enjoyment, and whether the child shows interpersonal awareness. The *Social Withdrawal* subscale includes whether the child shows depressed facial expressions, whether the child shows inept leadership attempts, and whether the child is sullen. The *Negative Aggression/Affect* subscale includes whether the child's facial expression shows negative affect, whether the child takes pleasure in other's distress, and whether the child bullies others. Items that were part of the Minnesota Affective Rating Form were scaled on a Likert scale (almost never, rarely, sometimes, often, very often, almost always, unable to code).

The *Authority Acceptance* subscale includes taking other's property, harming others, and teasing classmates. The *Cognitive Concentration* subscale includes paying attention, concentrating, and completing assignments. The *Social Contact* subscale includes playing with others, initiating interactions with others, and having social contact with others. Items on the Social Health Profile were scored on a Likert scale (almost never, rarely, sometimes, often, very often, almost always). However, the guidelines for this scale in the Social Health Profile varied depending on the question asked. For items 1, 2, 4, 8, 9,

13, 16. 17, 20, 22, 29, 32, 33, 34, 36, and 37, the following guidelines were used: almost never = student on task less than 20% of the time, rarely = student on task between 20% and 30% of the time, sometimes = student on task between 30% and 50% of the time, often = student on task between 50% and 70% of the time, very often = student on task between 70% and 80% of the time, and almost always =student on task more than 80% of the time. For all of the other items on the Social Health Profile, the following guidelines were used: almost never = student does not engage in this behavior, rarely = student engages in this behavior 1-2 times, sometimes = student engages in this behavior 2-3 times, often = student engages in this behavior 3-5 times, very often = student engages in this behavior 5-7 times, and almost always = student engages in this behavior more than 7 times.

The Classroom Atmosphere Ratings items were scored on a scale from 1 to 6. The scale ranged was very high, moderately high, average, moderately low, very low, and unable to code.

Subscales		**Items**
Minnesota Affect Rating Form	**Positive Adjustment**	MA7, MA10, MA11, MA14, MA15, MA21*, MA27*
	Positive Affect	MA1, MA2, MA3, MA5, MA6, MA13, MA19*, MA25*
	Social Withdrawal	MA19, MA22, MA26, MA28, MA36
	Negative Aggression/Affect	MA16, MA17, MA18, MA23, MA24, MA26, MA30, MA31, MA32, MA33, MA37, MA38
Social Health Profile**	**Authority Acceptance**	SH3, SH5, SH6, SH10, SH12, SH15, SH19, SH21, SH23, SH24
	Cognitive Concentration	SH25*, SH26*, SH28*, SH31
	Social Contact	SH2*, SH4*, SH8, SH9*, SH14*, SH16, SH17*, SH20*, SH22*, SH32, SH34*

*These items are reverse-scored.
**There is no item SH7.

Cronbach's alphas were not calculated for each subscales.

IV. Descriptive Statistics

In order to fit the page layout limits, tables below were truncated to two decimals.

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
O2FDSTPC	% TIME TEACH POS/CHILD POS STRUCT	147	0.06	0.07	0.00	0.42
O2FDSTPN	% TIME TEACH POS/CHILD NEG STRUCT	147	0.00	0.00	0.00	0.03
O2FDSTNC	% TIME TEACH NEG/CHILD POS/STRUCT	147	0.01	0.01	0.00	0.08
O2FDSTNN	% TIME TEACH NEG/CHILD NEG/STRUCT	147	0.00	0.00	0.00	0.04
O2FDSTIP	% TIME TARGET POS/PEER POS/STRUCT	147	0.06	0.05	0.00	0.27
O2FDSTIN	% TIME TARGET POS/PEER NEG/STRUCT	147	0.00	0.01	0.00	0.03
O2FDSDIS	% TIME TARGET DIS BEHAVIOR/STRUCT	147	0.00	0.01	0.00	0.07
O2FDSPIP	% TIME PEER POS/TARGET POS/STRUCT	147	0.04	0.03	0.00	0.19
O2FDSPIN	% TIME PEER POS/TARGET NEG/STRUCT	147	0.00	0.01	0.00	0.04
O2FDSTAG	% TIME TARGET AGG TO PEER/STRUCT	147	0.00	0.01	0.00	0.10
O2FDSPAG	% TIME PEER AGG TO TARGET/STRUCT	147	0.00	0.00	0.00	0.03
O2FDSOTH	% TIME OTHER BEHAVIOR/STRUCT	147	0.82	0.11	0.37	0.98
O2FDUTPC	% TIME TEACH POS/CHILD POS USTRUC	147	0.03	0.04	0.00	0.27
O2FDUTPN	% TIME TEACH POS/CHILD NEG USTRUC	147	0.00	0.00	0.00	0.02
O2FDUTNC	% TIME TEACH NEG/CHILD POS/USTRUC	147	0.01	0.01	0.00	0.05
O2FDUTNN	% TIME TEACH NEG/CHILD NEG/USTRUC	147	0.00	0.01	0.00	0.06
O2FDUTIP	% TIME TARGET POS/PEER POS/USTRUC	147	0.18	0.09	0.02	0.44
O2FDUTIN	% TIME TARGET POS/PEER NEG/USTRUC	147	0.01	0.01	0.00	0.06
O2FDUDIS	% TIME TARGET DIS BEHAVIOR/USTRUC	147	0.00	0.00	0.00	0.02
O2FDUPIP	% TIME PEER POS/TARGET POS/USTRUC	147	0.15	0.09	0.01	0.47
O2FDUPIN	% TIME PEER POS/TARGET NEG/USTRUC	147	0.00	0.01	0.00	0.04
O2FDUTAG	% TIME TARGET AGG TO PEER/USTRUC	147	0.01	0.02	0.00	0.10
O2FDUPAG	% TIME PEER AGG TO TARGET/USTRUC	147	0.01	0.01	0.00	0.13
O2FDUOTH	% TIME OTHER BEHAVIOR/USTRUC	147	0.60	0.14	0.19	0.89
O2FDENGS	% TIME DISENGAGED/STRUCT	147	0.15	0.12	0.00	0.60
O2FDENGU	% TIME DISENGAGED/USTRUC	147	0.06	0.08	0.00	0.46

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
O2FDPPRS	% TIME POS PR INT U (DSTRIP+DSPIP)	147	0.10	0.07	0.00	0.41
O2FDPPRU	% TIME POS PR INT S (DUTRIP+DUPIP	147	0.33	0.14	0.05	0.71
O2FDTIS	% TIME TCH INT S (DSTPC+DSTPN+DSTNC+DSTN	147	0.07	0.07	0.00	0.45
O2FDTIU	% TIME TCH INT U (DUTPC+DUTPN+DUTNC+DUTN	147	0.03	0.04	0.00	0.32
O2FTAG	RATE OF TARGET AGG (O2FSTAG+O2FUTAG)	146	0.11	0.14	0.00	0.93
O2FPAG	RATE OF PEER AG (O2FSPAG+O2FUPAG)	146	0.07	0.10	0.00	0.68
O2FDENG	% TIME DISENGAGED (O2FDENGS+O2FDENGU)	146	0.20	0.16	0.00	0.73
O2FDPPR	% TIME POS PR INT (O2FDPPRS+O2FDPPRU)	146	0.43	0.16	0.07	0.83
O2FDTI	% TIME TCH INT (O2FTINS+O2FTINU)	146	0.10	0.10	0.01	0.71
O2FMARPD	MINNESOTA POS ADJUSTMENT	148	0.41	0.13	0.03	0.86
O2FMARPA	MINNESOTA POS AFFECT	148	0.77	0.17	0.20	1.00
O2FMARWD	MINNESOTA WITHDRAW	148	0.15	0.17	0.00	0.80
O2FMARAG	MINNESOTA AGGRESSIVE/NEG AFFECT	148	0.19	0.17	0.00	0.72
O2FSHPAA	SHP AUTHORITY ACCEPTANCE	148	0.68	0.59	0.00	2.91
O2FSHPCC	SHP COGNITIVE CONCENTRATION	148	2.07	0.72	0.56	3.64
O2FSHPSC	SHP SOCIAL CONTACT	148	1.51	0.63	0.00	3.35
O2FSTRC	TOTAL SECONDS STRUCT OBS	148	3785.73	667.23	0.00	5415.00
O2FUSTRC	TOTAL SECONDS USTRUCT OBS	148	3137.18	575.59	0.00	5329.00

V. Recommendations for Use

Analysts should note that some of the ratios have very low scoring. This is indicative of very low observation of the behavior. When variables are examined with higher than two decimal values, additional variability becomes evident. The user is encouraged to examine distributions for variables of interest.