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## ABSTRACT

This project paper reports the interobserver agreements and reliabilities for the observation procedures used in the Descriptive Study of Phase IV of the Individually Guided Education Evaluation Project. Only data from four observers--at the two Developing Mathematical Processes Schools and the two Wisconsin Design for Reading Skills Development Schools, grades 2 and 5--were used. Interobserver agreements and reliabilities were computed for each of three situations: training session, retraining session, and on-site visits. For each pair of observers and for each category, marginal agreements were computed. For the category sets--General Content, Pacing, Grouping, Materials, Learner Moves, and Interactions--Category Marginal Agreements and Cohen's Kappa were computed. Generalizability coefficients for estimates of reliability were computed for the training and retraining sessions for groups of three observers observing two or three classes for two days. The results indicated that there was high interobserver agreement at the three different check times on the categories of self-paced, other-paced, individual, large group, paper/pencil, engaged-written, engaged-covert, and non-engaged off task. The low interobserver agreements were explained mainly as a result of a low frequency of occurrence. The generalizability coefficients for total engagement and total non-engagement were acceptable. (Author/BS)

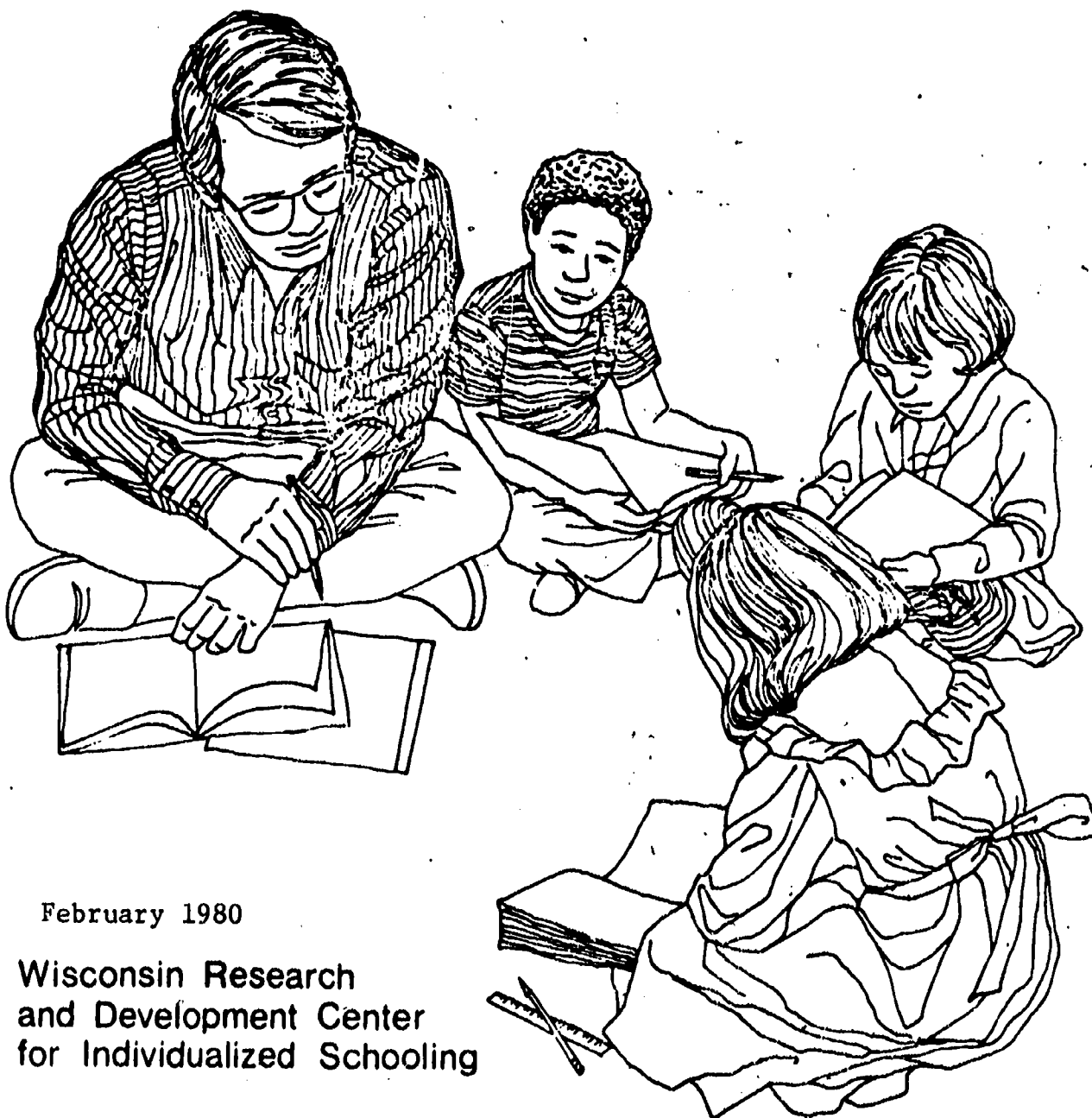
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Phase IV  
Project Paper 79-25  
Part 1 of 2 Parts

INTEROBSERVER AGREEMENT FOR THE OBSERVATION PROCEDURES  
FOR THE DMP AND WDRSD OBSERVERS -  
DESCRIPTIVE STUDY

by Norman L. Webb



February 1980

Wisconsin Research  
and Development Center  
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by

Norman L. Webb

Report from the  
IGE Evaluation Project

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for Individualized Schooling  
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February 1980

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- developing and demonstrating improved instructional strategies, processes, and materials for students, teachers, and school administrators
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CENTER FOR INDIVIDUALIZED SCHOOLING

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## Abstract

This project paper reports the interobserver agreements and reliabilities for the observation procedures used in the Descriptive Study of Phase IV of the IGE Evaluation Project. Only data from observers at the two DMP and two WDRSD schools are reported in this paper. The four observers attended a four day training session, January 10-13 1978, to learn how to use the observation procedures. On March 16 and 17 a retraining session was held at the middle of the fourteen week investigative period to check on the interobserver agreements. In addition, on-site visits were made to each school by one of the Phase IV staff where both the observer and staff member did one or two observations together. Interobserver agreement and reliabilities were computed for each of these three situations -- training session, retraining session, and on-site visits. For each pair of observers and for each category, marginal agreements were computed. For the sets of categories--General Content, Pacing, Grouping, Materials, Learner Moves and Interactions -- Category Marginal Agreements and Cohen's Kappa were computed. Generalizability coefficients for estimates of reliability were computed for the training and retraining sessions for groups of three observers observing two or three classes for two days. The results indicated that there was high interobserver agreement at the three different check times on the categories of self-paced, other-paced, individual, large group, paper/pencil, engaged-written, engaged-covert, and non-engaged off task. The low interobserver agreements

were explained mainly as a result of a low frequency of occurrence.  
The generalizability coefficients for total engagement and total  
non-engagement were acceptable.

## Introduction

As a comprehensive system of education, Individually Guided Education (IGE) has as a goal the development of self-direction and motivation for learning in students, as well as the instruction of students at different levels of achievement. To examine IGE as an operating system, a five-phase plan was developed (Romberg, 1976). In Phase I, the extent to which key features of IGE had been implemented was assessed for a large sample of schools and related to both pupil and staff outcomes. In Phase II, more complete implementation data were collected from a sample of thirty schools to both verify and extend the Phase I data. Phase III was designed to examine the social meanings of schooling as interpreted within IGE schools on a day-to-day basis. Phase IV investigated the use of the Center's three curriculum programs in IGE and non-IGE situations. Finally, Phase V will provide a discussion of the implications of the overall project to significant contemporary issues about the conception and study of schooling.

Phase IV was a two-part study: the Descriptive Study and the Comparative Study. The purpose of the Descriptive Study was to describe the use of the Wisconsin Design for Reading Skills Development (WDRSD), (Otto, 1977); Developing Mathematical Processes (DMP), (Romberg, 1977); and Prereading Skills (PRS), (Venezky & Pittelman, 1977). Two schools using WDRSD, two schools using DMP, and three schools using PRS participated in the Descriptive Study from January to May, 1978. The purpose of the Comparative Study was to compare the use of WDRSD and DMP in IGE

and non-IGE situations and to contrast these programs with alternative programs being used in IGE situations. Math classes at eight schools and reading classes at eleven schools participated in the study from October 1978 until May 1979. A more detailed description of the design of Phase IV and the curriculum programs is given in Webb and Romberg (1979).

As in the other phases of the IGE Evaluation Project, only students at grade levels 2 and 5, or the IGE equivalent, participated in the math and reading skills portion of the study. The two schools that were selected to be in the reading skills portion of the Descriptive Study were both IGE schools using WDRSD at these grade levels. Both schools initially implemented the WDRSD at these grade levels. Both schools initially implemented the WDRSD program in 1971. While the Word Attack, Study Skills, and Comprehension elements were taught at both grade levels at School 452, only Word Attack was used at Grade 2, and Study Skills was used at Grade 5 at School 504.

The two DMP schools that were selected to be in the Descriptive Study were both IGE schools using DMP at these grade levels. Each school had been using DMP at the primary level for at least two years. The grade 5 DMP materials had only been available for approximately a year prior to the study. These schools then had only been using DMP at grade level 5 for one year.

The three main variables investigated in Phase IV were pupil outcomes, opportunity to learn, and means of instruction. Pupil outcomes were measured in two ways, using achievement monitoring and domain

referencing tests. The development of these tests is described in Webb (1979a) and Dunham, Nerenz, and Webb (1979). Information on the other two variables was collected using observations (Webb & Nerenz, 1979a) and teacher logs (Webb & Nerenz, 1979b).

The data collection phase of the Descriptive Study lasted seventeen weeks, beginning January 16 and ending May 19, 1978. This time was divided into two periods of seven weeks, period one, January 23 to March 10, and period two, March 27 to May 12. Tests were administered during the weeks of January 16, March 13, and May 15. This project paper discusses the interobserver agreements of the two DMP and two WDRSD observers in using the observation system for the training and retraining sessions and the on-site visits.

## I

Observations

In order to obtain information about the means of instruction and use of time during instruction in mathematics and reading skills in Grade 2 and Grade 5 classrooms or units using the DMP and WDRSD curriculum programs, observations were conducted approximately every week during the seventeen-week investigative period. The procedures used in conducting these observations are reported in detail in Project Paper 79-32 (Webb, 1979 b) and summarized briefly below.

Within each classroom or unit, six target students who were either randomly selected from the entire class or from a stratified sample within the units were observed using a time sampling procedure. The activity that a target student was participating in was observed for an instant and recorded as an event on the observation form, requiring approximately thirty seconds. This was followed by another thirty-second period for the observation and recording of the next student's activity. Each target student was thus observed in sequence. Then general comments were recorded concerning the whole class and requiring another thirty seconds. This cycle was repeated from the designated beginning of the reading skills or mathematics period until the end of that instructional period. The set of categories used to record information included:

- General Content - Time not spent on the content area of the subject matter of the instruction.
- Specific Content - Indication of the objective or skill of the student's activity.
- Pacing - Whether the student or another individual controls the pace of instruction.
- Grouping - The size of the group of which the student is a part.
- Materials - The materials used in the activity.
- Learner Moves - The student's engagement or non-engagement in the activity.
- Interactions - Verbal interactions involving the student during the activity.

The total amount of time spent by the six target students in each of these categories during the observation period was summed, providing an estimate of the allocated and available time. These observation categories, procedures, and means of analysis are similar to those used in the Beginning Teacher Evaluation Study (Marliave, et al., 1977).

## II

### Observers and Observer Training

All of the observers were from the area in which the school was located and had had some previous elementary teaching experience. Most had served as teachers, substitute teachers, or aides in the school

where the observations were to be conducted. A more detailed description of each observer is given in Project Paper 79-42 (Webb & Romberg, 1979).

A description of the training and re-training sessions is given in Project Paper 79-33 (Webb & Nerenz, 1979c). Briefly, the DMP and WDRSD training session lasted for four days. The first day was spent providing the observers with an introduction to the system and a review of the curriculum materials. The next three days were spent doing observations in groups of three, one expert and two observers, in actual classrooms. On each of these days, three classes were observed--one fifth-grade DMP class, one second-grade DMP class, and one second-grade WDRSD class. During these sessions, the two observers at the DMP schools were always grouped together, as were the two observers at the WDRSD schools. The expert observers did observations with both pairs of observers at least once so that each pair had some experience with each expert. The training session was designed to familiarize the observers with the system, provide them with observation experiences, and measure interobserver agreement.

Whenever two or more observers observed together, certain procedures were followed. One clock was designated as the indicator of the time intervals. If a wall clock with a second hand was not visible to all of the observers, one of the observers acted as time keeper and provided a signal when the next target student was to be observed. A period of thirty seconds was allowed to observe each target student within one cycle, with each cycle lasting 3-1/2 minutes. Communication between the observers was kept to a minimum and was used mainly to designate the beginning of



another cycle. Observations were conducted for the total class period, after which the observers reviewed the coding of each event and checked on their agreement. Discrepancies were discussed at this time.

From the training session, several sources of error were considered. The definition of a category may be ambiguous, making it difficult to distinguish among behaviors that fit the category. In addition, student activities may be ambiguous, allowing for more than one interpretation of the activity. How the student is engaged can frequently be interpreted in more than one way, with very little difference in certain situations between non-engagement in an interim activity and covert engaged behavior. Such difficulty in classifying student activities is also increased due to the fact that student activities are constantly changing. Thus, variations in the instant during which the two observers view the target child represent another source of error which will influence the level of inter-observer agreement. This problem results in observer error when observations are compared event by event, but should be minimized when class marginal totals across students and events are tabulated.

The training of the observers was designed to reduce as many of these errors as possible. The categories were defined with examples in the observer's manual. Ambiguous situations were discussed and clarified. By the end of the training session, it was expected that each observer would have marginal agreement with an expert on each category of .90 or above. The generalizability coefficients were

used to indicate the degree of consistency among the raters without reference to particular level of agreement.

One problem in conducting observations over a period of time is the vigilance of the observers in performing the observations at the same level of competency at the end as at the beginning of the investigative period. To minimize this problem, all of the DMP and WDRSD observers attended a retraining session between the two halves of the investigative period. This two-day session was spent doing observations in groups of three, similar to the training session, to check on inter-observer agreement. This same procedure of conducting observations with two or more observers was followed for this retaining session, and observer pairs and experts observed the same classes at the same schools for which training data were collected. In addition, on-site visits were made by Phase IV staff members to each school at least once during each period. This was a check of the observer's application of the coding system within the actual setting where data was being collected. The visit also was used to determine whether the observers were maintaining or improving the level of intercoder agreement which was reached at the training session.

All of the observations during the training and retraining sessions for DMP and WDRSD observers were conducted in actual classrooms under conditions which would be very similar to those which each observer would experience in obtaining the data. Actual classrooms were used in the training for several reasons. First, the observation system and

and procedures were complex enough that the activity of the target student could only be interpreted and coded in terms of the previous activities and behaviors, as well as the relationship with the teacher and the other students. To use video tapes in the training sessions would require a high quality of video taping using a split screen focusing on both the target student and the larger classroom setting, including the teacher and other students. This would have required substantially more preparatory time and equipment than was available.

A second reason for using the actual classroom was that the ratio of trainers to trainees was small, 1 to 2. This provided an adequate amount of time for the trainer to discuss in detail with the observers any discrepancies in the coding of classroom events following each observation. The discussions included information about the teacher, the target student, other students, and the materials, all of which were to be taken into account in coding the activities of the target children.

One disadvantage of conducting the training in actual classrooms, however, is that the observers may not be exposed to all possible situations. In an attempt to minimize this restriction in the training experiences, for the observers for DMP and WDRSD, sessions were observed in three different types of classes: one Grade 5 DMP class, one Grade 2 WDRSD class, and one Grade 5 WDRSD class. This exposed the observers to a number of situations. In addition, after the observers returned to their schools, one of the trainers visited each of them and did an on-site observation, discussing the coding of any specific situations

which had not occurred during the training session but which the observer had subsequently experienced.

Another difficulty in using actual classroom settings for the training of observers is the difficulty in separating unwanted observer errors in the coding of unambiguous examples from expected observer disagreements on ambiguous events. A detailed discussion followed each observation among the two observers and the trainer. This time was used to identify observer disagreements and to determine the reason for such conflicts. Disagreements due to ambiguous events were noted to be considered in revising the definition of the categories for the comparative study. It was not necessary to have exact agreement on each event since the observation data was processed by summing across the events for the total class period. This lessened the need for agreement on each event as long as the marginal agreements were reasonable.

Using actual classrooms during the training sessions, then, was selected as the most reasonable means of training the observers because of the small number of observers to be trained, the time available to prepare quality video-tapes, or instructional materials, and the ability to discuss each observation in detail after the observation. Also, varied types of sessions were observed and observations were analyzed to provide information about the class, meaning that frequencies were computed across events and students and allowing for some disagreement between observers on specific events.

### Interobserver Agreement and Reliability of Observations

In obtaining information about the means of instruction and use of time, the observers must have a thorough knowledge of the observation system in order to interpret students' classroom activities and record these activities using the appropriate categories. Secondly, in order to have reliable data, the observers must be able to use the observation system consistently across observation days. Thus, measures of inter-observer agreement and consistency over time were needed.

#### Knowledge of the Observation System

The assessment of the observers' knowledge of the categories and procedures in the observation system was obtained by comparing the results of their observations by category for actual classroom sessions with those of an expert observer--one of the two Phase IV staff members who developed the observation system. The coding by the expert observer was used as the criteria for the observers to match. The level of agreement among the two expert observers was checked prior to the observer training session. This procedure of measuring the observers' knowledge of the system worked adequately for categories which were frequently observed such as pacing categories, individual or large groups, paper and pencil materials, and learner moves. For the categories that occurred infrequently, the knowledge of the observers was not tested during the training session when they occurred. These categories were given more emphasis during the on-site visits.

### Reliabilites across Situations

Each DMP and WDRSD observer was to do observations at both Grades 2 and 5 from twelve to sixteen times over fourteen of the seventeen weeks composing the investigative period. In each case, the observer usually observed the same group of students using the same curriculum materials at approximately the same time of day. The only exception was at one of the WDRSD schools where students were regrouped approximately every two weeks and thus the target students were not always in the same instructional group. At this school, the observations were made on the instructional group containing the largest number of target students, with additional children observed so that the total number of students that were observed during each session was six.

Each observer then did observations on different days and at both grades two and five. In order to get an estimate of the reliability of observers across situations a generalizability coefficient (Cronbach, Gleser, Nanda, and Rajaratnam, 1972) was computed. Variance due to day was treated as a fixed effect in that some variance on each category was expected within a class from day to day. The variance components were computed using BMD: Biomedical Computer Programs (Dixon, 1971). For computing the generalizability coefficients for the WDRSD and DMP training session, data were used from the observations of two groups of two observers and one expert for three classes, one on Thursday and two on Friday. This provided, for each category, an estimate of generalizability for each set of observers and indicates the consistency among the observers across different classes.

### Analysis and Results

#### Interobserver Agreement

Marginal agreement (Frick and Semmel, 1978) was used as the single measure of interobserver agreement in comparing each observer with the expert for specific aspects of each observation category. This agreement is a simple percentage relating the total frequency of a category across all the events for all of the target students for the two individuals. This measure of agreement was chosen since the unit of analysis is the class or I & R unit and the major analyses will use marginal totals. Marginal agreement was calculated for each category that had a sufficient number of observed events to make the measure meaningful. Calculations were generally not done for the general content categories, some of the materials categories, and some of the interactions because of low frequencies during the observed sessions.

Two measures of interobserver agreement were used in determining the accuracy of the observers compared with the expert for the set of categories, such as pacing, grouping, and learner moves. The overall marginal agreement is the mean of the individual marginal category agreements for all of the sub-categories in the set.

In addition, Cohen's kappa ( $\kappa$ ) was computed. This coefficient takes into consideration chance agreement and is based on observed marginal distributions (Frick and Semmel, 1978). Cohen's  $\kappa$  coefficient was selected from among the other coefficients since

it does not require that the marginals be symmetrical and proportional to known populational marginals. Cohen's  $\kappa$  can also be tested for the significance of the difference between two independent  $\kappa$ 's and for the null hypothesis. However, the knowledge that  $\kappa$  is beyond chance is of little value, since, as an agreement coefficient, the desired value is much greater than 0. The value of  $\kappa$  indicates the proportion of events observed that are in agreement, with chance agreement excluded. One assumption for the use of  $\kappa$  is that the number of events is large--greater than or equal to 100--in order to assure that the proportion of events for which agreement is expected by chance remains nearly constant. Cohen's  $\kappa$  and the overall marginal agreement were used to determine the accuracy of the observers during the training session, the retraining session, and the on-site visits.

Two other measures of interobserver agreement were calculated and are included on the tables in the appendices but are not used in the analysis. These measures were calculated to be compared with the marginal agreement and to judge their appropriateness in measuring the agreement between observers for the data collected. One measure is the nominal agreement which compares two observers on individual events. This is a stronger criterion than marginal agreement and was not used in the analyses since only marginal scores were used from the observations. Nominal agreement does give an indication of the agreement between two observers in recording



an instant of an activity rather than describing the total events over the activity.

The second measure included is Light's extension of  $\kappa$  (Frick and Semmel, 1978). This coefficient is algebraically equivalent to Cohen's  $\kappa$ , but is more versatile than the latter. Using the Light's extension of  $\kappa$  it is possible to provide for one category a measure of the conditional agreement with two observers which compares the agreement of one observer's score with a criterion score--the expert's score. The consideration of chance agreement is included in this coefficient. This coefficient was calculated to explore what additional information it can provide beyond the marginal agreement and Cohen's  $\kappa$  for the set of categories.

#### Generalizability of Observations

The data from the training and retraining sessions for the DMP and WDRSD observers were used to perform small generalizability studies and to calculate generalizability coefficients ( $\rho_c^2$ ) on some of the observation categories--pace, group, learner moves, and paper and pencil materials. During the training session two groups of three observers each observed three classes. The generalizability coefficients calculated from this data provide some measure of the ability of the observers to discriminate among classes. A high coefficient indicates that a large amount of the variance can be accounted for by differences among classes and that the variance due to the differences among observers is relatively small. A low

coefficient is due to large differences among the raters relative to the variance among classes. A zero coefficient indicates there is no variance among the classes.

In the retraining session for the DMP and WDRSD observers a cross design was used for two sets of observers. One set was composed of DMP observer 40 and expert observer 80. The other set consisted of the two WDRSD observers, 10 and 20, and expert observer 90. DMP observer 30 was only able to attend the last day of the retraining. Each set of observers observed the same three classes on two consecutive days resulting for the first set a 2 x 3 x 2 (observer x class x day) design and for the second set a 3 x 3 x 2 (observer x class x day) design. The BMD: Biomedical Computer Program 08V (Dixon, 1971) was used in calculating the variance components. Day was used as a fixed effect. The generalizability coefficient was computed using the equation:

$$G = \frac{\sigma^2}{\sigma^2 + \sigma_{cc}^2}$$

where  $\sigma^2$  = variance component for class

$\sigma_{cc}^2$  = variance component for the interaction between teacher and class

Generalizability coefficients for the retraining session were computed for the same observation categories as for the training session. A large coefficient for the retraining session denotes that the class was the primary source of variance relative to the variance due to interactions among the class and the two variables

rater and day. A low or zero coefficient can be interpreted similar to the interpretation of the coefficients for the training session. The coefficient should be higher for the retraining session since the observers are more experienced.

InterpretationsTraining Session

Observer Agreement. The summary of the observer agreement coefficients by sets of categories for the DMP and WDRSD training sessions are given in Table 1 through Table 9. Listed in the tables for each observer-expert pair and for each category is the marginal agreement. The overall marginal agreement and Cohen's kappa ( $\kappa$ ) are given for the category set for each observer-expert pair. The contingency tables showing the frequencies for each category in each set for the training session are included in Appendix A. These tables can be consulted in order to determine the extent that the category was observed and the actual frequency of disagreement between the expert and observer.

The agreement coefficients for the pace categories are given in Table 1. The range of marginal agreements for self-paced is generally from .86 to 1.00. During one Grade 2 class using WDRSD, the expert coded six instances of self-pace which neither of the two observers noted. This resulted in a marginal agreement of zero, but is of little significance because of the low frequency of occurrence in this case and the consistently high agreements on the other occasions. The marginal agreements for other-paced generally ranges from .68 to 1.00. Two occasions with low agreement, observer pairs 30-80 and 40-90 on Friday, can be accounted for by a relatively low number of positive occurrences for other-paced coded during the class. The marginal agreements for not coding either of the pace categories vary greatly with low agreements

TABLE 1

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Pace Categories

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa ( $\kappa$ )	
			Self-Paced	Other-Paced	No Pace			
Obs <sup>a</sup>	Expert							
Thursday, January 12, 1978								
10	90	WDRSD 2	54	.86 (30) <sup>b</sup>	.79 (24)	- <sup>c</sup> (0)	.82	.81
20	90	WDRSD 2	54	.94 (30)	.79 (24)	- (0)	.86	.64
30	80	WDRSD 2	60	1.00 (34)	.83 (15)	.73 (1)	.85	.86
40	80	WDRSD 2	60	1.00 (34)	.88 (15)	.82 (1)	.90	.88
10	80	DMP 2	84	.94 (34)	.94 (31)	1.00 (19)	.96	.76
20	80	DMP 2	84	.90 (34)	.87 (31)	1.00 (19)	.92	.78
30	90	DMP 2	78	.86 (48)	.68 (22)	.88 (8)	.80	.61
40	90	DMP 2	78	.78 (48)	1.00 (22)	.88 (8)	.95	.78
Mean				.94	.85	.88	.88	.76
Friday, January 13, 1978								
10	90	DMP 5	30	.93 (27)	- (0)	.60 (3)	.76	.71
20	90	DMP 5	30	.96 (27)	- (0)	.67 (3)	.82	.78
30	80	DMP 5	30	1.00 (11)	1.00 (12)	1.00 (7)	1.00	1.00
40	80	DMP 5	30	1.00 (11)	.92 (12)	.86 (7)	.93	.95
10	90	WDRSD 2	54	.00 (6)	.92 (47)	.33 (1)	.42	.27
20	90	WDRSD 2	54	.00 (6)	.92 (47)	.33 (1)	.42	.06
30	80	WDRSD 2	54	.89 (47)	.40 (2)	.71 (5)	.67	.40
40	80	WDRSD 2	54	1.00 (47)	1.00 (2)	1.00 (5)	1.00	1.00
10	80	DMP 2	78	.97 (32)	.95 (41)	.62 (5)	.85	.82
20	80	DMP 2	78	1.00 (32)	.98 (41)	.80 (5)	.92	.88
30	90	DMP 2	84	.98 (65)	.82 (11)	.73 (8)	.84	.41
40	90	DMP 2	84	.92 (65)	.36 (11)	.89 (8)	.72	.60
Mean				.80	.83	.71	.78	.66

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c - No events were coded for this category by either  
the observer or expert.

explained by low frequency of occurrences.

The overall marginal agreement for pacing, the average of the three category marginals, ranges from .42 to 1.00. The low overall marginals correspond to occasions where one of the categories had a low frequency. Except for four of the occasions, the Cohen's  $K$  coefficients range from .60 to 1.00. The four occasions with low  $K$ 's all occurred on Friday and three while observing a Grade 2 class using WDRSD. Again part of the reason for these coefficients is the disagreement between observers on a category which was observed infrequently by the expert. Overall, the observers had high agreement on the pacing categories. One observer, 30, had a few more problems with the coding of pacing than did the other. Also, there appears to be more difficulty with one class of Grade 2 WDRSD. The class differences will be studied in more detail in the generalizability study for the retraining sessions.

The coefficients for the grouping categories are given in Table 2. Most of the student available time was coded as being spent in individual work or in large groups. These two categories correspond closely to self-paced and other-paced, respectively. The marginal agreements for individual grouping are generally high ranging from .64 to 1.00. The range for large groups is also high, ranging in general from .67 to 1.00. Those coefficients below this range occurred where a very low frequency of the category was observed. The agreements in observing pairs and small groups are less stable than for the other two groupings. One reason for this is the low frequency of occurrence of these groupings. However, even considering this fact it appears that the observers had more difficulty

TABLE 2

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Grouping Categories

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal					Overall Marginal	Cohen's Kappa ( $\kappa$ )	
			Ind.	Pair	SmGR	LgGR	Other			
Obs <sup>a</sup>	Expert									
Thursday, January 12, 1978										
10	90	WDRSD 2	54	.64(20) <sup>b</sup>	.40 (5)	.62(13)	.81(16)	- <sup>c</sup> (0)	.62	.64
20	90	WDRSD 2	54	.74(20)	.40 (5)	.77(13)	.75(16)	- (0)	.66	.68
30	80	WDRSD 2	60	.94(31)	.60 (3)	- (0)	.83(15)	.73 (11)	.77	.82
40	80	WDRSD 2	60	.90(31)	.50 (3)	- (0)	.88(15)	.82 (11)	.78	.82
10	80	DMP 2	84	.96(26)	.67 (9)	1.00(11)	.83(19)	1.00 (19)	.89	.80
20	80	DMP 2	84	.92(26)	.78 (9)	.79(11)	.95(19)	1.00 (19)	.89	.83
30	90	DMP 2	78	.74(38)	.75 (8)	.43(14)	.80(10)	.88 (8)	.72	.58
40	90	DMP 2	78	.86(38)	1.00 (8)	.57(14)	.91(10)	.88 (8)	.84	.77
Mean				.84	.64	.70	.84	.88	.77	.74
Friday, January 13, 1978										
10	90	DMP 5	30	1.00(24)	1.00 (1)	.00 (1)	.00 (1)	.60 (3)	.52	.61
20	90	DMP 5	30	.86(24)	.00 (1)	.00 (1)	.00 (1)	.67 (3)	.30	.46
30	80	DMP 5	30	.82 (9)	.00 (1)	.00 (1)	1.00(12)	1.00 (7)	.56	.90
40	80	DMP 5	30	.90 (9)	.00 (1)	1.00 (1)	.92(12)	.86 (7)	.74	.90
10	90	WDRSD 2	54	.00 (1)	- (0)	- (0)	.98(52)	.33 (1)	.44	.59
20	90	WDRSD 2	54	1.00 (1)	- (0)	- (0)	.96(52)	.33 (1)	.76	.14
30	80	WDRSD 2	54	.95(41)	.50 (1)	- (0)	.50 (2)	.71 (5)	.67	.51
40	80	WDRSD 2	54	1.00(41)	1.00 (6)	- (0)	1.00 (2)	1.00 (5)	1.00	.91
10	80	DMP 2	78	.97(31)	1.00 (1)	1.00 (4)	.95(37)	.62 (5)	.91	.84
20	80	DMP 2	78	1.00(31)	1.00 (1)	1.00 (4)	.97(37)	.80 (5)	.95	.85
30	90	DMP 2	84	.65(41)	.43(23)	0.00 (9)	0.00 (3)	.72 (8)	.36	.41
40	90	DMP 2	84	.66(41)	.39(23)	.22 (9)	.67 (3)	.89 (8)	.57	.50
Mean				.82	.53	.40	.66	.71	.65	.64

a Observers 10 and 20 observed at WDRSD schools. Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c - No events were coded for this category by either the observer or expert.

in distinguishing when students were in pairs or small groups. Considering only the occasions where the positive instances of the grouping observed by the expert was at least 10% of the total number of events, the range of marginal agreement for pairs is .39 to 1.00 and for small groups is 0.00 to 1.00. The lowest agreements occurred on Friday with the observer pairs 30-90 and 40-90 for a Grade 2 DMP class. The expert coded a higher frequency of pairs and small groups in this class than in any of the others. However, the observers did not code these two categories with any larger frequency than in other classes which indicates that the observers still lacked experience in identifying the use of pairs and small groups.

The overall marginals for the set of categories are influenced by disagreements where there are a low frequency of a category coded. In these cases the Cohen's  $\kappa$  appears to be more representative of the situation. The Cohen's  $\kappa$  ranges from .58 to .83 on Thursday and from .14 to .91 on Friday. The  $\kappa = .14$  occurred when there was a very high agreement on one of the categories, large group, and a very low frequency of occurrence for all of the other categories. This increased the factor due to chance agreement and lowered the value of  $\kappa$ . Any difference in agreement on one of the 54 events has a large effect on the value of the kappa. In general the  $\kappa$ 's for the set of grouping categories is reasonably high which indicates that even though the observers did not achieve great proficiency in coding pairs and small groups, overall they demonstrated an ability to code grouping since mainly large groups and individual work was used. There do appear to be some differences



in agreement due to the expert. The observers consistently agreed more highly with expert 80 than with expert 90. Expert 80 developed the system and had the main responsibility for instructing the observers on the system. The low agreement then appears to be partly due to the expert rather than just with the observers.

Tables 3, 4, 5, 6 and 7 list the agreement coefficients for the material categories. Only paper and pencil materials (Table 3) were coded as being used in all of the classes observed. For the other materials, the coefficients are only reported for the classes where their use was coded at least once. For paper and pencil materials the marginal coefficient is high (generally above .90) as is the Cohen's  $\kappa$  (generally above .60). Thus the observers demonstrated facility in coding the use of paper and pencil materials. Disagreements were due to the interpretation of when students were not actually using paper and pencil at the precise moment the event was coded but where paper and pencil were still part of the ongoing activity and should be coded.

Manipulatives (Table 4) were observed, with one exception, only in DMP classes. There was higher agreement on Friday than on Thursday. The marginal agreements for DMP classes on Friday was generally above .80. The Cohen  $\kappa$ 's for these ranged from .64 to .88 indicating the observers were adequate in identifying when manipulatives were being used. For the WDRSD Grade 2 class on Friday, Observer 20 coded playing bingo as using a manipulative rather than a game. This misinterpretation was discussed with the observer after the class and clarified at that time.

Games (Table 5) were observed being used very infrequently during the training session. For the Grade 2 WDRSD class on Friday, the marginal

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Paper and Pencil Material Category

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa (κ)	
			Paper/pencil used	Paper/pencil not used	Other			
Obs <sup>a</sup>	Expert							
Thursday, January 12, 1978								
10	90	WDRSD 2	54	.93 (39) <sup>b</sup>	.80 (15)	- <sup>c</sup> (0)	.86	.85
20	90	WDRSD 2	54	.87 (39)	.40 (15)	- (0)	.64	.40
30	80	WDRSD 2	60	.98 (49)	.00 (0)	.78 (11)	.57	.60
40	80	WDRSD 2	60	.98 (49)	.00 (0)	.82 (11)	.60	.72
10	80	DMP 2	84	.97 (61)	.67 (4)	1.00 (19)	.88	.78
20	80	DMP 2	84	1.00 (61)	1.00 (4)	1.00 (19)	1.00	.89
30	90	DMP 2	78	.90 (55)	.67 (15)	.88 (8)	.81	.57
40	90	DMP 2	78	.90 (55)	.67 (15)	.88 (8)	.81	.81
Mean				.94	.53	.89	.77	.70
Friday, January 13, 1978								
10	90	DMP 5	30	.93 (27)	- (0)	.60 (3)	.76	.71
20	90	DMP 5	30	1.00 (27)	.00 (0)	.67 (3)	.56	.82
30	80	DMP 5	30	.83 (23)	.00 (0)	1.00 (7)	.61	.71
40	80	DMP 5	30	.96 (23)	.00 (0)	1.00 (7)	.65	.82
10	90	WDRSD 2	54	.00 (6)	.92 (47)	.33 (1)	.42	.16
20	90	WDRSD 2	54	.00 (6)	.92 (47)	.33 (1)	.42	.05
30	80	WDRSD 2	54	.94 (47)	.50 (2)	.83 (5)	.76	.40
40	80	WDRSD 2	54	.96 (47)	.00 (2)	1.00 (5)	.65	.82
10	80	DMP 2	78	1.00 (45)	.89 (28)	.62 (5)	.84	.81
20	80	DMP 2	78	.98 (45)	1.00 (28)	.80 (5)	.93	.78
30	90	DMP 2	84	1.00 (73)	.00 (3)	.73 (8)	.58	.85
40	90	DMP 2	84	1.00 (73)	.67 (3)	.89 (8)	.85	.95
Mean				.80	.44	.73	.67	.65

a Observers 10 and 20 observed at WDRSD schools. Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c - No Events were coded for this category by either the observer or expert.

TABLE 4

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Manipulative Material Category

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa ( $\kappa$ )
			Manipulative Used	Manipulative Not Used	Other		
Obs <sup>a</sup>	Expert						
Thursday, January 12, 1978							
10	90	WDRSD 2	54				
20	90	WDRSD 2	54				
30	80	WDRSD 2	60				
40	80	WDRSD 2	60				
10	80	DMP 2	84	1.00 (9) <sup>b</sup>	1.00 (56)	1.00 (19)	1.00 .85
20	80	DMP 2	84	.67 (9)	.95 (56)	1.00 (19)	.87 .87
30	90	DMP 2	78	.77 (23)	.87 (47)	.87 (8)	.84 .50
40	90	DMP 2	78	.56 (23)	.64 (47)	.87 (8)	.69 .51
Mean				.75	.86	.94	.85 .68
Friday, January 13, 1978							
10	90	DMP 5	30	.64 (14)	.81 (13)	.60 (3)	.68 .67
20	90	DMP 5	30	.93 (14)	.87 (13)	.67 (3)	.82 .88
30	80	DMP 5	30				
40	80	DMP 5	30				
10	90	WDRSD 2	54				
20	90	WDRSD 2	54	.00 (0)	.00 (53)	.33 (1)	.11 .00
30	80	WDRSD 2	54				
40	80	WDRSD 2	54				
10	80	DMP 2	78	.92 (23)	.90 (50)	.62 (5)	.82 .64
20	80	DMP 2	78	.82 (23)	.92 (50)	.80 (5)	.84 .70
30	90	DMP 2	84	.88 (49)	.90 (27)	.73 (8)	.83 .73
40	90	DMP 2	84	.90 (49)	.87 (27)	.89 (8)	.89 .75
Mean				.72	.75	.66	.71 .62

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Observer Pair	Curriculum and Grade	Total Events Observed	Game			Overall Marginal	Cohen's Kappa (κ)
			Game Used	Game Not Used	Other		
Thursday, January 12, 1978							
10	90	WDRSD 2	54				
20	90	WDRSD 2	54				
30	80	WDRSD 2	60				
40	80	WDRSD 2	60				
10	80	DMP 2	84				
20	80	DMP 2	84				
30	90	DMP 2	78				
40	90	DMP 2	78				
Mean							
Friday, January 13, 1978							
10	90	DMP 5	30				
20	90	DMP 5	30				
30	80	DMP 5	30				
40	80	DMP 5	30				
10	90	WDRSD 2	54	.96 (53) <sup>b</sup>	<sup>c</sup> (0)	.33 (1)	.65
20	90	WDRSD 2	54	.00 (53)	.00 (0)	.33 (1)	.11
30	80	WDRSD 2	54				
40	80	WDRSD 2	54				
10	80	DMP 2	78				
20	80	DMP 2	78				
30	90	DMP 2	84	.00 (3)	1.00 (73)	.73 (8)	.58
40	90	DMP 2	84	.00 (3)	.97 (73)	.89 (8)	.62
Mean							
				.24	.66	.57	.49
							.54

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c - No Events were coded for this category by either the observer or expert.

TABLE 6

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Audio-Visual Aid

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa (κ)
			AV Aid Used	AV Aid Not Used	Other		
Thursday, January 12, 1978							
10	90	WDRSD 2	54				
20	90	WDRSD 2	54				
30	80	WDRSD 2	60				
40	80	WDRSD 2	60				
10	80	DMP 2	84				
20	80	DMP 2	84				
30	90	DMP 2	78				
40	90	DMP 2	78				
Mean							
Friday, January 13, 1978							
10	90	DMP 5	30				
20	90	DMP 5	30				
30	80	DMP 5	30				
40	80	DMP 5	30				
10	90	WDRSD 2	54				
20	90	WDRSD 2	54				
30	80	WDRSD 2	54				
40	80	WDRSD 2	54				
10	80	DMP 2	78				
20	80	DMP 2	78				
30	90	DMP 2	84	.00 (1)	.97 (75)	.73 (8)	.57
40	90	DMP 2	84	.00 (1)	1.00 (75)	.89 (8)	.63
Mean				.00	.98	.81	.60
							.83

TABLE 7

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Printed Materials

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa (κ)	
			Printed Mat. Used	Printed Mat. Not Used	Other			
Obs <sup>a</sup>	Expert		Thursday, January 12, 1978					
10	90	WDRSD 2	54	.92 (25) <sup>b</sup>	.94 (29)	-. <sup>c</sup> (0)	.93	.78
20	90	WDRSD 2	54	.88 (25)	1.00 (29)	-. (0)	.94	.40
30	80	WDRSD 2	60	.00 (0)	.98 (49)	.73 (11)	.57	.53
40	80	WDRSD 2	60	.00 (0)	.80 (49)	.82 (11)	.54	.40
10	80	DMP 2	84	.00 (0)	.99 (65)	1.00 (19)	.66	.83
20	80	DMP 2	84					
30	90	DMP 2	78					
40	90	DMP 2	78					
Mean				.36	.94	.85	.73	.59
Friday, January 13, 1978								
10	90	DMP 5	30	.00 (0)	.82 (27)	.60 (3)	.47	.48
20	90	DMP 5	30	.00 (0)	1.00 (27)	.67 (3)	.56	.64
30	80	DMP 5	30	.00 (0)	.65 (23)	1.00 (7)	.55	.53
40	80	DMP 5	30	.00 (0)	.91 (23)	.86 (7)	.59	.68
10	90	WDRSD 2	54					
20	90	WDRSD 2	54	.00 (0)	.00 (53)	.33 (1)	.11	.00
30	80	WDRSD 2	54	.85 (20)	.94 (20)	.83 (5)	.87	.67
40	80	WDRSD 2	54	.95 (20)	.97 (29)	1.00 (5)	.97	.97
10	80	DMP 2	78					
20	80	DMP 2	78					
30	90	DMP 2	84					
40	90	DMP 2	84					
Mean				.26	.75	.76	.59	.57

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c -No Events were coded for this category by either the observer or expert.

TABLE 8

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Learner Moves Categories

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal							Other	Overall Marginal	Cohen's Kappa $\kappa$
			EnW	EnO	EnC	NI	NW	NO				
Thursday, January 12, 1978												
10	90	WDRSD 2	54	.54(11) <sup>b</sup>	.29(2)	.88(15)	.86 (6)	.50(12)	.73(8)	<sup>c</sup> (0)	.63	.27
20	90	WDRSD 2	54	1.00(11)	.33(2)	.83(15)	.83 (6)	.08(12)	.80(8)	.00 (0)	.64	.37
30	80	WDRSD 2	60	1.00 (9)	.33(2)	.81(21)	.50 (2)	.86 (6)	1.00(9)	.73(11)	.75	.65
40	80	WDRSD 2	60	.90 (9)	.50(2)	.91(21)	.50 (2)	.83 (6)	.89(9)	.82(11)	.76	.68
10	80	DMP 2	84	.50(10)	.38(3)	.83(30)	1.00 (3)	.67(12)	.86(7)	1.00(19)	.75	.49
20	80	DMP 2	84	.59(10)	.43(3)	.50(30)	.60 (3)	.58(12)	.50(7)	1.00(19)	.60	.55
30	90	DMP 2	78	.88(14)	.38(3)	.96(25)	.75 (12)	.14 (7)	.44(9)	.88 (8)	.63	.44
40	90	DMP 2	78	.82(14)	.50(3)	.86(25)	1.00 (12)	.29 (7)	.56(9)	.88 (8)	.70	.63
Mean				.78	.39	.82	.76	.49	.72		.68	.51
Friday, January 13, 1978												
10	90	DMP 5	30	.64(11)	.00(0)	1.00 (9)	.00(00)	1.00(22)	1.00(5)	.60 (3)	.60	.40
20	90	DMP 5	30	.65(11)	.00(0)	.44 (9)	.44 (01)	.50(22)	.40(5)	.67 (3)	.44	.36
30	80	DMP 5	30	.86 (7)	- (0)	.86 (6)	.50 (2)	.86 (7)	.33(1)	1.00 (7)	.73	.71
40	80	DMP 5	30	1.00 (7)	.00(0)	1.00 (6)	.50 (2)	1.00 (7)	.50(1)	.86 (7)	.69	.79
10	90	WDRSD 2	54	- (0)	.00(0)	.76(13)	.88 (8)	.80(30)	1.00(2)	.33 (1)	.63	.60
20	90	WDRSD 2	54	.00 (0)	.00(0)	.92(13)	.88 (8)	.90(30)	1.00(2)	.33 (1)	.58	.46
30	80	WDRSD 2	54	.80(12)	.50(4)	.86(14)	.50 (2)	1.00 (5)	.75(12)	.71 (5)	.73	.39
40	80	WDRSD 2	54	.75(12)	1.00(4)	1.00(14)	.29 (2)	.80 (5)	.33(12)	1.00 (5)	.74	.57
10	80	DMP 2	78	.62 (5)	.50(3)	.59(46)	.29 (4)	1.00(11)	1.00 (4)	.62 (5)	.66	.43
20	80	DMP 2	78	.80 (5)	.43(3)	.96(46)	.50 (4)	.91(11)	.75 (4)	.80 (5)	.74	.49
30	90	DMP 2	84	.47 (8)	.71(5)	.73(22)	.67(12)	1.00 (7)	.95(19)	1.00(11)	.79	.50
40	90	DMP 2	84	.53 (8)	.71(5)	.86(22)	.58(12)	.29 (7)	.76(19)	.82(11)	.65	.61
Mean				.65	.35	.83	.46	.84	.73		.66	.52

NOTE: EnW - Engaged written      EnO - Engaged oral      EnC - Engaged covert  
 NI - Non-engaged interim      NW - Non-engaged waiting      NO - Non-engaged off-task

a Observers 10 and 20 observed at WDRSD schools.  
 Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c - No Events were coded for this category by either the observer or expert.

agreement for the pair 10-90 was .97. Observer 20 misinterpreted the situation and coded manipulative rather than a game as discussed above. On the other occasion when games were coded as being observed, the expert observer (90) coded three events involving a game where the two observers did not code any games being used. Because of the low frequency of the use of games during the training session it is difficult to judge the facility of the observers to code this category. This is also true for audio-visual aids (Table 6).

Printed materials (Table 7) on several occasions were coded by one of the observers but not by the expert as for the Thursday Grade 2 WDRSD class for pairs 30-80 and 40-80 and the Friday Grade 5 DMP classes for all pairs. On these occasions the number coded by the observer is small as can be deduced from the high marginal coefficients for not using printed materials. For the occasions where the expert coded printed materials being used, the marginal agreements are high (.92, .88, .85 and .95). Thus when printed materials were observed being used by the expert the agreement was reasonably high. This supports the conclusion that, along with the coefficients from the other material categories, the observers had fairly high agreement on coding the categories coded most frequently by the expert. But, with the exception of paper and pencil, the different kinds of materials were observed so infrequently during the training session that it is difficult to assess the true capabilities of the observers to code these categories from just the data collected during the training session except that there was high agreement that the materials were not used.

There are differences among the agreement coefficients for the



agreement for the pair 10-90 was .96. Observer 20 misinterpreted the situation and coded manipulative rather than a game as discussed above. On the other occasion when a games were coded as being observed, the expert observer (90) coded three events involving a game where the two observers did not code any games being used. Because of the low frequency of the use of games during the training session it is difficult to judge the facility of the observers to code this category. This is also true for audio-visual aids (Table 6).

Printed materials (Table 7) on several occasions were coded by one of the observers but not by the expert as for the Thursday Grade 2 WDRSD class for pairs 30-80 and 40-80 and the Friday Grade 5 DMP classes for all pairs. On these occasions the number coded by the observer is small as can be deduced from the high marginal coefficients for not using printed materials. For the occasions where the expert coded printed materials being used, the marginal agreements are high (.92, .88, .85 and .95). Thus when printed materials were observed being used by the expert the agreement was reasonably high. This supports the conclusion that, along with the coefficients from the other material categories, the observers had fairly high agreement on coding the categories coded most frequently by the expert. But, with the exception of paper and pencil, the different kinds of materials were observed so infrequently during the training session that it is difficult to assess the true capabilities of the observers to code these categories from just the data collected during the training session except that there was high agreement that the materials were not used.

There are differences among the agreement coefficients for the learner move categories (Table 8) that are partially accounted for by the frequency of the number of events during which the category was coded. Engaged oral was very infrequently coded, less than 19% of the events for each class. The marginal agreements for this category are generally low and are unstable. Non-engaged waiting was coded more frequently for some of the classes. The marginal agreements increased significantly from Thursday to Friday indicating improvement on coding this category. On Friday the average marginal agreement for non-engaged waiting is .84. Non-engaged interim is a third category that was coded infrequently and had unstable marginal agreements. The agreements are reasonable for Thursday with an average marginal agreement of .76. For Friday the average marginal agreement is lower, .46, indicating some uncertainty of the observers in coding this category. The other three categories appear to be stable across days and acceptable. The average marginal agreements on Thursday and Friday for engaged written were .78 and .65, for engaged cover, .82 and .83, and for non-engaged off-task .72 and .73. For the set of categories over both days, the Cohen's  $\kappa$ 's range from .67 to .79 with an average of .52. In general, the observers achieved an acceptable level of facility in coding three of the learner moves categories. They appeared to be more unstable in coding non-engaged interim. They improved sufficiently on Friday in coding non-engaged waiting to indicate they have a grasp of that category. Engaged oral occurred too infrequently to make any conclusions about the capability of the observers to code this category.

Table 9 lists the agreement coefficients for two of the inter-

learner move categories (Table 8) that are partially accounted for by the frequency of the number of events during which the category was coded. Engaged oral was very infrequently coded, less than 10% of the events for each class. The marginal agreements for this category are generally low and are unstable. Non-engaged waiting was coded more frequently for some of the classes. The marginal agreements increased significantly from Thursday to Friday indicating improvement on coding this category. On Friday the average marginal agreement for non-engaged waiting is .84. Non-engaged interim is a third category that was coded infrequently and had unstable marginal agreements. The agreements are reasonable for Thursday with an average marginal agreement of .76. For Friday the average marginal agreement is lower, .46, indicating some uncertainty of the observers in coding this category. The other three categories appear to be stable across days and acceptable. The average marginal agreements on Thursday and Friday for engaged written were .78 and .65, for engaged covert, .82 and .83, and for non-engaged off-task, .72 and .73. For the set of categories over both days, the Cohen's K's range from .27 to .79 with an average of .52. In general, the observers achieved an acceptable level of facility in coding three of the learner moves categories. They appeared to be more unstable in coding non-engaged interim. They improved sufficiently on Friday in coding non-engaged waiting to indicate they have a grasp of that category. Engaged oral occurred too infrequently to make any conclusions about the capability of the observers to code this category.

Table 9 lists the agreement coefficients for two of the interaction

categories,, target to student and teacher to group. These two categories were the only ones which were consistently observed across classes. The number of events coded by the expert for target to student was very small. The marginal agreements are unstable reflecting the low number of occurrences coded. There is some indication that observers tended to code more than the expert interactions of the target student talking to another student as indicated by the lack of agreement, for example, on Friday for the Grade 5 DMP class. On nine of the twenty occasions the marginal agreement for the category was .75 or above. These occasions included the two classes where the expert coded the greatest number of events involving this category, Thursday for Grade 2 DMP with pairs 30-90 and 40-90 and on Friday for Grade 2 WDRSD with pairs 30-80 and 40-80.

The category teacher to group was coded more frequently by the experts than the observers with the marginal agreement averaging .77 for Thursday and .45 on Friday. On the occasions where the expert coded the category for at least 10% of the events, the range of marginal agreement was above .60 except for one pair. The marginal agreements for not coding any interactions are high ranging from .71 to 1.00 with an average of .91. Thus observers were consistent in agreeing when interactions did not occur. Observers were less consistent in coding positive occurrences of the categories target to student and teacher to group. On most occasions these categories occurred infrequently which contributed to the instability of the agreement coefficient. It also is difficult to interpret the coefficients for the set of interaction categories because of the low frequency of the categories.

TABLE 9

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Training Session: January 12 and 13, 1978

Interactions Category

Observer Pair	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa (K)	
			Target to Student	Teacher to Group	None of the above			
Thursday, January 12, 1978								
10	90	WDRSD 2	54	.50 (2) <sup>b</sup>	.46 (5)	.71 (45)	.39	.27
20	90	WDRSD 2	54	1.00 (2)	.80 (5)	.96 (45)	.65	.49
30	80	WDRSD 2	60	.75 (3)	.73 (11)	.96 (43)	.30	.73
40	80	WDRSD 2	60	.60 (3)	.92 (11)	.88 (43)	.56	.67
10	80	DMP 2	84	.17 (1)	.50 (8)	.93 (56)	.47	.32
20	80	DMP 2	84	.50 (1)	.80 (8)	.84 (56)	.29	.32
30	90	DMP 2	78	1.00 (6)	.92 (13)	1.00 (55)	.49	.54
40	90	DMP 2	78	.83 (6)	1.00 (13)	1.00 (55)	.81	.73
Mean				.67	.77	.91	.50	.51
Friday, January 13, 1978								
10	90	DMP 5	30	.50 (1)	- (0)	.93 (26)	.29	.12
20	90	DMP 5	30	1.00 (1)	- (0)	.93 (26)	.32	.30
30	80	DMP 5	30	- <sup>c</sup> (0)	.67 (3)	.96 (26)	.41	.53
40	80	DMP 5	30	.00 (0)	.60 (3)	.88 (26)	.30	.48
10	90	WDRSD 2	54	.00 (0)	.73 (8)	.89 (45)	.52	.32
20	90	WDRSD 2	54	- (0)	.13 (8)	.86 (45)	.25	.14
30	80	WDRSD 2	54	.75 (4)	0.00 (0)	.96 (47)	.53	.31
40	80	WDRSD 2	54	1.00 (4)	- (0)	.98 (47)	.40	.67
10	80	DMP 2	78	1.00 (2)	.62 (21)	.86 (49)	.35	.46
20	80	DMP 2	78	1.00 (2)	.88 (21)	.86 (49)	.61	.64
30	90	DMP 2	84	.33 (3)	- (0)	.92 (75)	.38	.18
40	90	DMP 2	84	.50 (3)	0.00 (0)	.95 (75)	.35	.36
Mean				.61	.45	.92	.39	.38

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Events coded by the expert.

c -No Events were coded for this category by either the observer or expert.

Summarizing the results of the analyses of the marginal agreements, for most categories the marginal agreements between the observer and the expert are consistently high. A few categories were coded very infrequently making it difficult to assess the ability of the observers in coding these. These categories are pair, small group, engaged oral and most of the materials and interactions categories. The marginal coefficients for the non-engaged interim category varied by observer pair and from class to class. The coding of this category is more unstable than the others which may be related to how it is defined.

Generalizability of the Categories. The generalizability coefficients from the training session for each observer trio and for each category are given in Table 10. These can be interpreted as an indication of the amount of variance due to the class when considering the interaction between the observers and the class. A high coefficient indicates that most of the variance is due to the class and not to the difference among the observers. A low coefficient indicates that there is some interaction among the observers and the class. That is, observers coded the category differently for different classes.

The coefficients for most of the categories are high, above .80. Categories with consistently lower coefficients are pair, engaged-oral, non-engaged interim, and non-engaged waiting. Engaged-written has very low coefficients for the sessions with observer trios 10, 20, 80 and 30, 40, 90 but has high coefficients for the other three classes. Zero coefficients for some of the categories (engaged oral and non-engaged interim and waiting) indicate that there was no variance due to class. Thus the classes observed

TABLE 10

## Summary Generalizability Coefficients

## Training Session

Observation Category	<u>3 classes - 2 days</u>		<u>2 classes - 2 days</u>	
	<u>Observer Trio</u>		<u>Observer Trio</u>	
	10x20x90	30x40x80	10x20x80	30x40x90
1. Self-paced	.96	.99	.49	.82
2. Other-paced	.99	.97	.83	.77
3. General Content	.36	.69	.98	.90
4. Individual	.95	.99	.96	.64
5. Pair	.70	.76	.49	.33
6. Small Group	.94	.57	.95	.99
7. Large Group	.99	.98	.95	.98
8. General Content	.78	.69	.98	.40
9. Engaged-Written	.86	.91	.05	.10
10. Engaged-Oral	.81	.61	.00	.00
11. Engaged-Covert	.81	.94	.46	.76
12. Non Engaged-Interim	.97	.37	.00	.45
13. Non Engaged-Waiting	.93	.63	.00	.00
14. Non Engaged-Off Task	.89	.71	.31	.89
15. General Content	.36	.69	.98	.40
16. Paper/pencil Materials	.98	.99	.99	.94
17. Total Engagement	.90	.93	.59	.95
18. Total Non Engagement	.95	.85	.04	.96

were very similar on these categories. For the categories of pair and engaged written, the low non-zero coefficients indicate that the variance due to the interaction between the observer and class was high compared to the variance due to the class. On these categories there is more disagreement among the observers.

Generalizability coefficients are given for the sum of the three engaged categories (Total Engagement) and for the three non-engaged categories (Total Non-engagement). With the exception of one observer trio, the coefficients for these two composite categories are high. Observers in some cases disagreed as to how the students were engaged or non-engaged, but they did agree that the students were engaged or non-engaged.

Summary of Training Session Observer Agreement. On many of the categories the observers demonstrated that they achieved a high degree of competency in coding the category. In coding the categories of pair, non-engaged interim and non-engaged waiting the observers were less consistent. The agreement among observers on these categories need to be checked carefully during the on-site visits and retraining sessions. A few categories (small group and engaged oral) were rarely observed by either the expert or the observers during the training session making it impossible to assess the true ability of the observers to code these categories except that there was high agreement that the categories did not occur.



### Retraining Session

The summaries of the category marginals, overall marginals, and the Cohen's  $\kappa$  for the DMP and WDRSD retraining session are given in Tables 11 through 20. Table 21 gives the summary of means of the category marginals for both the training and retraining sessions. The summary of the means of the Cohen's  $\kappa$  for both sessions are given in Table 22. The generalizability coefficients for each category for the retraining session are given in Table 23. The contingency tables showing the frequencies for each category by observer pair for the retraining session are included in Appendix B.

There is still variation in the marginal agreements for categories from class to class. Often the lower marginal agreements correspond to a low frequency of positive occurrences observed by the expert. For example, in Table 12 for Thursday Grade 2 WDRSD, the lower marginal coefficients (.57 and .56) occurred when the expert only coded 7 or 5 events as individual. In Table 11 for other paced, the lower marginals of .00 and .43 on Thursday occurred when 2 and 7 events, respectively, were coded by the expert as being other paced. It appears that the observers are coding the main activity with accuracy, but if there is some deviation, such as one student working individually while the other students are working in a large group, this point is missed on occasion by some of the observers.

The means of the category marginal (Table 21) indicate that on the categories of pair, games, printed materials, engaged-writing, engaged-oral, non-engaged off-task, and teacher to group interactions the observers improved in their ability to code these after doing seven observations.

The mean marginals were down considerably for manipulatives and slightly for other-paced and target to student interactions. Manipulatives were not used as much during the classes observed for the retraining session (Table 14) as they were during the training session (Table 4). Again observers agreed closely on what materials were used over a long period of time, but were more inconsistent in agreeing when materials were used only on a few occasions. The mean of the marginals for the other categories remained approximately the same.

Considering each set of categories and the means of the Cohen's  $\kappa$ , paper and pencil materials, printed materials, and learner moves generally had means higher for the retraining session than for the training session (Table 22). The only category with a distinct decrease in the means of the Cohen's  $\kappa$  is manipulatives. The Cohen's  $\kappa$  can be interpreted as the percent of agreement beyond chance agreement. The  $\kappa$ 's above .70 are considered to be reasonably high.

Considering both the data from the training and retraining sessions there is reasonable agreement on the following categories:

- Self paced
- Other paced
- Individual
- Large Group
- Paper/pencil
- Engaged-written
- Engaged-covert
- Non-engaged off-task

The agreement on the category engaged-oral was low for the training sessions, but improved to an acceptable level for the retraining session. Students only occasionally would talk during the classes observed so that the category of engaged-oral had very low frequencies. The class with the highest frequency of positive occurrences of engaged-oral for the retraining session (Table 19) had 8 of 90 events coded by the expert as having engaged-oral.

The categories with consistently low observer agreement are:

Pair

Small group

Printed materials

Non-engaged interim

Non-engaged waiting

Target to student interactions

Teacher to group interactions

For the categories of pair and small group for the retraining sessions (Table 12), agreement was reasonable if, for either of the groupings, the grouping occurred on more than two events. Disregarding the marginal agreements for pair when the expert coded pairs for two or less events, the average marginal agreement was .70 and .76 for the two days. On no occasion in the retraining session did an observer code a pair when the expert did not code any pairs. For the five observer pairs where the expert observed more than two small groups, the average marginal agreement was .90. On only one of the occasions, Grade 2 DMP Friday observers 10-20-90, did the observers code a small group when the expert did not observe any. For these two categories, it appears that the agreement was high or

reasonable when pairs and groups were used more than just on occasion during the period. The observers were not as sensitive when two or three students would form a group, discuss some work and then continue with their own individual work. These "informal" pairs and small groups were more difficult for the observers to identify.

For printed materials (Table 17) the agreement was high when printed materials were not used. The disagreement on when printed materials were used is mainly due to deciding if the printed materials were part of the on-going activity. The observers were to code printed materials if the materials were on the desk and used at sometime during the on-going activity. The student did not have to be reading from the printed material at the moment observed for printed materials to be coded as part of the on-going activity. Instead observers generally coded printed materials when they were actually being used. This is also true for the other materials categories of games, audio-visual and manipulatives. However, these materials were used very infrequently making it difficult to get any true measure of observer agreement.

The two non-engaged categories of interim and waiting are similar to pair and small group categories. On occasions where the expert observed two or more events with one of these categories, there was reasonable agreement. The average marginal agreements for each of the two days, when only counting occasions with more than two events coded by the expert, were .80 and .74 for interim and .75 and .69 for waiting. Again the observers agreed reasonably well if the category occurred on more than two events. Disagreement on these categories generally occurred when there was little time spent in interim or waiting activities.

Interactions occurred infrequently during the classes (Table 20). Marginal agreements are reported for the two interactions that were coded the most, target to student and teacher to group. For both of these interactions the number of positive events observed by the expert was generally 20% or less of the total number of events coded. The marginal agreements are high for observer pairs coding when there were no interactions. The marginal agreements, however, are low on target to student interaction. For teacher to group interactions the agreements are reasonably high on one day (Friday), but lower on the other. The average marginal agreements are similar to those for the training session with a similar variation between the two days. Observer agreement is acceptable in coding teacher to group interactions since agreement is generally high when there were a significant number of interactions, more than 10% of the events. Also the agreement increased on the second day of the training session indicating improvement of the ability in observing this category. The frequency of occurrence of target to students was so small that it is difficult to measure the true capability of the observers in coding this category except that there is high agreement in not coding the category.

Generalizability Coefficients. The generalizability coefficients computed across the three classes for both days of the retraining session for each observer group are given in Table 23. The coefficients are calculated treating day as a fixed effect. That is, the assumption was made that variations in the categories from day to day are expected and are not treated as error. Most of the coefficients are extremely high, above .90, indicating that the variation among the observers was very low in

relationship to the variation among the classes. In some cases the coefficient is zero, general content for observers 10, 20, 90 and engaged-oral for observers 40, 80. This indicates that there was very little variation among the classes for the category. In the case of general content one observer group had .00 and the other had a coefficient of .96. This indicates that when there was enough variation among the classes on general content the observers agreed highly on this category. For engaged-oral, both coefficients are low. Thus there is disagreement on this category even though there is little variation among classes partly because of the low frequency of the category. The only other category that is low for both observer groups is pair. There is some disagreement among observers across classes in coding the use of pairs.

Other categories have coefficients that vary between the two observation groups -- engaged-covert, total engagement, non-engaged interim, and non-engaged off task. The observers in one of the groups varied somewhat on these categories in relationship to the variance among classes. This indicates that these categories are more unstable than the others but still reasonably high with coefficient values of .60 or above. Total engagement for the group 10,20,90 has a coefficient of .46 which is fairly low. This probably is associated with the variation among observers in coding engaged-oral since the coefficients for the other two engaged categories are high.

Retraining Session Summary. On most of the categories the agreement among observers in coding the categories is high as indicated by the high

marginal agreements and generalizability coefficients. The categories with questionable agreement are generally those which were observed infrequently. The coding of pairs was low as indicated by both the marginal agreements and the generalizability coefficients. Observers improved from the training session to the retaining session in coding engaged-oral, but observers still varied greatly on the category as indicated by the low generalizability coefficients. Non-engaged interim and non-engaged waiting both had low marginal agreements but had relatively high generalizability coefficients. Observers disagree somewhat in coding one class on these categories but the agreement is sufficient enough to distinguish the use of these categories among classes. Frequent use of small groups is coded with high agreement. An occasional use of small groups where three or four students come together briefly to work on a problem and then continue with their individual work is more difficult for the observers to identify. Overall, the observers code small groups with enough accuracy to distinguish among classes as indicated by the high generalizability coefficients for this category. Observers have high agreement in instances when interactions do not occur. There is disagreement in observing particular types of interactions. The different kinds of interactions occur so infrequently that it is difficult to assess the agreement among the observers when observing in actual classroom situations. Similarly the observance of the use of most of the kinds of materials was so infrequent that it is impossible with the data collected to assess what is the agreement among observers except that they agreed highly that the materials were not used.

TABLE 11

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Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Pace

Observer Pair Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa $\kappa$
				Self	Other	No Pace		
Thursday, March 16, 1978								
10	90	DMP 5	90	.99 (82) <sup>c</sup>	.60 (3)	.80 (5)	.80	.56
20	90	DMP 5	90	.99 (82)	.00 (3)	1.00 (5)	.57	.64
30	80	DMP 5	- <sup>b</sup>					
40	80	DMP 5	90	.88 (29)	.96 (49)	.50 (12)	.78	.76
10	90	WDRSD 2	66	.88 (8)	.90 (46)	.67 (12)	.82	.79
20	90	WDRSD 2	66	1.00 (8)	.96 (46)	.85 (12)	.93	.76
30	80	WDRSD 2	-					
40	80	WDRSD 2	60	.56 (5)	.89 (37)	1.00 (18)	.82	.88
10	90	DMP 2	84	.96 (70)	.43 (7)	.88 (7)	.75	.78
20	90	DMP 2	84	.96 (70)	.78 (7)	.88 (7)	.87	.66
30	80	DMP 2	-					
40	80	DMP 2	78	.85 (44)	.83 (30)	.25 (4)	.64	.69
Mean				.90	.70	.76	.78	.65
Friday, March 17, 1978								
10	90	DMP 5	90	.97 (75)	1.00 (2)	.85 (13)	.94	.75
20	90	DMP 5	90	.97 (75)	.50 (2)	.92 (13)	.80	.83
30	80	DMP 5	90	.76 (38)	.82 (50)	.00 (2)	.53	.73
40	80	DMP 5	90	.95 (38)	.96 (50)	1.00 (2)	.97	.83
10	90	WDRSD 2	66	.78 (25)	.76 (33)	.89 (8)	.81	.73
20	90	WDRSD 2	66	.74 (25)	.73 (33)	1.00 (8)	.82	.68
30	80	WDRSD 2	60	.92 (24)	1.00 (32)	.50 (4)	.81	.82
40	80	WDRSD 2	60	.92 (24)	1.00 (32)	.50 (4)	.81	.94
10	90	DMP 2	84	.85 (35)	.86 (42)	1.00 (7)	.90	.71
20	90	DMP 2	84	.88 (35)	.83 (42)	.78 (7)	.83	.69
30	80	DMP 2	84	.77 (62)	.63 (19)	.50 (3)	.64	.62
40	80	DMP 2	84	.90 (62)	.76 (19)	1.00 (3)	.89	.84
Mean				.87	.82	.74	.81	.76

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer 30 did not attend the first day of the retraining.

c Events coded by the expert.



TABLE 12

Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Grouping

Observer Pair Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Material				Overall Marginal	Cohen's Kappa K	
				Ind	Pair	Small Group	Large Group			No Group
Thursday, March 16, 1978										
10	90	DMP 5	90	.92(66) <sup>c</sup>	.53(17)	.40 (2)	-. <sup>d</sup> (0)	.80 (5)	.66	.49
20	90	DMP 5	90	.94(66)	.71(17)	.50 (2)	- (0)	.71 (5)	.72	.47
30	80	DMP 5	- <sup>b</sup>							
40	80	DMP 5	90	.88(28)	.50 (2)	- (0)	.94(48)	.50 (12)	.70	.75
10	90	WDRSD 2	66	.86 (7)	.67 (2)	- (0)	.92(45)	.67 (12)	.78	.80
20	90	WDRSD 2	66	.57 (7)	.50 (2)	- (0)	.94(45)	.87 (12)	.71	.74
30	80	WDRSD 2	-							
40	80	WDRSD 2	60	.56 (5)	- (0)	.89 (37)	- (0)	1.00 (18)	.82	.88
10	90	DMP 2	84	.88(57)	.64(11)	.00 (2)	.57 (7)	.88 (7)	.59	.66
20	90	DMP 2	84	.93(57)	.92(11)	.00 (2)	.43 (7)	.88 (7)	.63	.65
30	80	DMP 2	-							
40	80	DMP 2	78	.93(42)	.29 <sup>d</sup> (2)	.33 (12)	.86(18)	.25 (4)	.53	.56
Mean					.60	.35	.78	.72	.68	.67
Friday, March 17, 1978										
10	90	DMP 5	90	.92(62)	.86 (7)	.75 (8)	- (0)	.85 (13)	.84	.68
20	90	DMP 5	90	.98(62)	.78 (7)	.88 (8)	.00 (0)	.92 (13)	.71	.67
30	80	DMP 5	90	.76(31)	.62 (8)	.00 (2)	.87 (47)	.00 (2)	.45	.72
40	80	DMP 5	90	.78(31)	.25 (8)	.00 (2)	.98 (47)	1.00 (2)	.60	.69
10	90	WDRSD 2	66	.75(18)	.82 (11)	.50 (1)	.79 (28)	.89 (8)	.75	.70
20	90	WDRSD 2	66	.86(18)	.85 (11)	.25 (1)	.71 (28)	1.00 (8)	.73	.65
30	80	WDRSD 2	60	.84(21)	1.00 (3)	- (0)	.94 (32)	.30 (4)	.82	.89
40	80	WDRSD 2	60	.91(21)	1.00 (3)	- (0)	1.00 (32)	.50 (4)	.85	.94
10	90	DMP 2	84	.92(33)	.42 (5)	.00 (0)	.69 (39)	1.00 (7)	.60	.66
20	90	DMP 2	84	.97(33)	.83 (5)	.00 (0)	.87 (39)	.78 (7)	.69	.72
30	80	DMP 2	84	.92(48)	.92 (12)	1.00 (3)	.78 (18)	1.00 (3)	.92	.77
40	80	DMP 2	84	1.00(48)	.75 (12)	1.00 (3)	.86 (18)	1.00 (3)	.92	.74
Mean				.88	.76	.44	.77	.79	.74	.74

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer 30 did not attend first day of the  
retraining session.

c Events coded by the expert.

d No events were coded for this  
category by either the expert  
or the observer.

TABLE 13

Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Paper/Pencil

Observer Pair Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa $\kappa$
				Paper/pencil used	Paper/pencil not used	Other		
Thursday, March 16, 1978								
10	90	DMP 5	90	.76 (82) <sup>c</sup>	.12 (3)	.80 (5)	.56	.29
20	90	DMP 5	90 <sub>b</sub>	1.00 (82)	.33 (3)	.71 (5)	.68	.66
30	80	DMP 5	-					
40	80	DMP 5	90	.85 (60)	.54 (18)	.50 (12)	.63	.59
10	90	WDRSD 2	66	.83 (10)	.96 (44)	.67 (12)	.82	.78
20	90	WDRSD 2	66	.80 (10)	.92 (44)	.83 (12)	.85	.84
30	80	WDRSD 2	-					
40	80	WDRSD 2	60	.74 (25)	.47 (17)	1.00 (18)	.74	.76
10	90	DMP 2	84	.99 (77)	- <sup>d</sup> (0)	.88 (7)	.93	.93
20	90	DMP 2	84	.99 (77)	- (0)	.88 (7)	.93	.93
30	80	DMP 2	-					
40	80	DMP 2	78	.98 (47)	.93 (27)	.25 (4)	.72	.87
Mean				.88	.61	.72	.76	.74
Friday, March 17, 1978								
10	90	DMP 5	90	.96 (77)	.00 (0)	.84 (13)	.60	.72
20	90	DMP 5	90	1.00 (77)	.00 (0)	.92 (13)	.64	.91
30	80	DMP 5	90	.88 (76)	.33 (12)	.00 (2)	.41	.23
40	80	DMP 5	90	.93 (76)	.71 (12)	1.00 (2)	.88	.82
10	90	WDRSD 2	66	.58 (41)	.52 (17)	.89 (8)	.66	.59
20	90	WDRSD 2	66	.98 (41)	.94 (17)	1.00 (8)	.97	.80
30	80	WDRSD 2	60	.96 (51)	1.00 (5)	.50 (4)	.82	.86
40	80	WDRSD 2	60	.94 (51)	.80 (5)	.50 (4)	.75	.78
10	90	DMP 2	84	.89 (47)	.86 (30)	1.00 (7)	.92	.75
20	90	DMP 2	84	.94 (47)	.83 (30)	.78 (7)	.85	.72
30	80	DMP 2	84	.96 (66)	.83 (15)	1.00 (3)	.93	.90
40	80	DMP 2	84	.97 (66)	.87 (15)	1.00 (3)	.95	.93
Mean				.92	.64	.78	.78	.75

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer 30 did not attend first day of the retraining session.

c Events coded by the expert.

d No events were coded for this category by either the expert or the observer.

TABLE 14

Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Manipulative Material Category

Observer Pair Obs <sup>a</sup>	Curriculum and Grade Expert	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa K.	
			Manipulative Used	Manipulative Not Used	Other			
Thursday, March 16, 1978								
10	90	DMP 5	90	.25 (4) <sup>c</sup>	.95 (81)	.80 (5)	.67	.55
20	90	DMP 5	90	.00 (4)	.98 (81)	.71 (5)	.56	.60
30	80	DMP 5	— <sup>b</sup>					
40	80	DMP 5	90	.41 (15)	.75 (63)	.50 (12)	.55	.52
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	—					
40	80	WDRSD 2	60	.11 (9)	.86 (65)	.25 (4)	.40	.10
10	90	DMP 2	84					
20	90	DMP 2	84					
30	80	DMP 2	—					
40	80	DMP 2	78					
Mean				.19	.88	.56	.54	.44
Friday, March 17, 1978								
10	90	DMP 5	90	.00 (0)	1.00 (77)	.85 (13)	.62	.82
20	90	DMP 5	90					
30	80	DMP 5	90	.48 (12)	.86 (76)	.00 (2)	.44	.43
40	80	DMP 5	90	.67 (12)	.95 (76)	1.00 (2)	.87	.72
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	60	.98 (56)	.00 (0)	.50 (4)	.49	.41
40	80	WDRSD 2	60	.80 (56)	.00 (0)	.50 (4)	.44	.27
10	90	DMP 2	84	.00 (0)	.99 (77)	1.00 (7)	.66	.49
20	90	DMP 2	84					
30	80	DMP 2	84	.00 (1)	.99 (80)	1.00 (3)	.66	.85
40	80	DMP 2	84	1.00 (1)	1.00 (80)	1.00 (3)	1.00	1.00
Mean				.49	.72	.73	.65	.63

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer 30 did not attend Thursday of the Retraining session.

c Events coded by the expert.

TABLE 15

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Game

Observer Pair Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa $\kappa$
				Game Used	Game Not Used	Other		
Thursday, March 16, 1978								
10	90	DMP 5	90					
20	90	DMP 5	90 <sup>b</sup>					
30	80	DMP 5	-					
40	80	DMP 5	90	.00 (4) <sup>c</sup>	.88 (74)	.50 (12)	.46	.50
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	-					
40	80	WDRSD 2	60					
10	90	DMP 2	84					
20	90	DMP 2	84					
30	80	DMP 2	-					
40	80	DMP 2	78					
Mean				.00	.88	.50	.46	.50
Friday, March 17, 1978								
10	90	DMP 5	90					
20	90	DMP 5	90					
30	80	DMP 5	90					
40	80	DMP 5	90					
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	60					
40	80	WDRSD 2	60					
10	90	DMP 2	84	.00 (34)	.56 (43)	1.00 (7)	.52	.11
20	90	DMP 2	84	.00 (34)	.57 (43)	.78 (7)	.45	.13
30	80	DMP 2	84	.80 (8)	.97 (73)	1.00 (3)	.92	.91
40	80	DMP 2	84	.75 (8)	.97 (73)	1.00 (3)	.91	.89
Mean				.39	.77	.94	.70	.51

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer did not attend first day of the retraining session.

c Events coded by the expert.

TABLE 16

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Audio-Visual Aid

Observer Pair. Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa $\kappa$ .
				AV Aid Used	AV Aid Not Used	Other		
Thursday, March 16, 1978								
10	90	DMP 5	90					
20	90	DMP 5	90					
30	80	DMP 5	.. <sup>b</sup>					
40	80	DMP 5	90					
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	-					
40	80	WDRSD 2	60					
10	90	DMP 2	84					
20	90	DMP 2	84					
30	80	DMP 2	-					
40	80	DMP 2	78					
Mean								
Friday, March 17, 1978								
10	90	DMP 5	90					
20	90	DMP 5	90					
30	80	DMP 5	90					
40	80	DMP 5	90					
10	90	WDRSD 2	66					
20	90	WDRSD 2	66	.00 (0) <sup>c</sup>	.95 (58)	1.00 (8)	.65	.82
30	80	WDRSD 2	60					
40	80	WDRSD 2	60					
10	90	DMP 2	84					
20	90	DMP 2	84					
30	80	DMP 2	84					
40	80	DMP 2	84					
Mean				.00	.95	1.00	.65	.82

a Observers 10 and 20 observed at WDRSD schools.  
~~Observers 30 and 40 observed at DMP schools.~~

b Observer did not attend first day of the retraining session.

c Events coded by the expert.

Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Printed Materials

Observer Pair Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa $\kappa$
				Printed Materials Used	Printed Materials Not Used	Other		
Thursday, March 16, 1978								
10	90	DMP 5	90	1.00 (11) <sup>c</sup>	.99 (74)	.80 (5)	.93	.78
20	90	DMP 5	90	.73 (11)	.99 (74)	.71 (5)	.81	.74
30	80	DMP 5	- <sup>b</sup>					
40	80	DMP 5	90	.74 (14)	.98 (64)	.50 (12)	.74	.72
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	-					
40	80	WDRSD 2	60	.47 (17)	.74 (25)	1.00 (18)	.74	.76
10	90	DMP 2	84					
20	90	DMP 2	84					
30	80	DMP 2	-					
40	80	DMP 2	78	.88 (7)	.97 (67)	.25 (4)	.70	.67
Mean				.76	.93	.65	.78	.73
Friday, March 17, 1978								
10	90	DMP 5	90	.10 (1)	.91 (76)	.85 (13)	.62	.57
20	90	DMP 5	90	.00 (1)	.97 (76)	.92 (13)	.63	.91
30	80	DMP 5	90	.93 (14)	.99 (74)	.00 (2)	.64	.81
40	80	DMP 5	90	.93 (14)	.99 (75)	1.00 (2)	.97	.89
10	90	WDRSD 2	66	.71 (14)	.94 (44)	.89 (8)	.85	.84
20	90	WDRSD 2	66	.00 (14)	.76 (44)	1.00 (8)	.59	.47
30	80	WDRSD 2	60					
40	80	WDRSD 2	60					
10	90	DMP 2	84	.00 (1)	.99 (76)	1.00 (7)	.66	.49
20	90	DMP 2	84	.00 (1)	.99 (76)	.78 (7)	.59	.54
30	80	DMP 2	84					
40	80	DMP 2	84					
Mean				.33	.94	.80	.69	.69

a. Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b. Observer did not attend first day of the retraining session.

c. Events coded by the expert.

Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Other Materials Category

Observer Pair Obs <sup>a</sup>	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa K
				Other Materials Used	Other Materials Not Used	Other		
Thursday, March 16, 1978								
10	90	DMP 5	90	.92 (12) <sup>c</sup>	.97 (73)	.80 (5)	.90	.93
20	90	DMP 5	90	.92 (12)	.96 (73)	.71 (5)	.86	.84
30	80	DMP 5	- <sup>b</sup>					
40	80	DMP 5	90					
10	90	WDRSD 2	66					
20	90	WDRSD 2	66					
30	80	WDRSD 2	-					
40	80	WDRSD 2	60					
10	90	DMP 2	84					
20	90	DMP 2	84					
30	80	DMP 2	-					
40	80	DMP 2	78	1.00 (2)	.96 (72)	.25 (4)	.74	.65
Mean				.95	.73	.59	.83	.81
Friday, March 17, 1978								
10	90	DMP 5	90	.33 (6)	.92 (71)	.85 (13)	.70	.78
20	90	DMP 5	90	.00 (6)	.91 (71)	.92 (13)	.61	.74
30	80	DMP 5	90					
40	80	DMP 5	90					
10	90	WDRSD 2	66	1.00 (1)	.98 (57)	.89 (8)	.96	.82
20	90	WDRSD 2	66	.00 (1)	.98 (57)	1.00 (8)	.66	.93
30	80	WDRSD 2	60					
40	80	WDRSD 2	60					
10	90	DMP 2	84	.50 (1)	.99 (76)	1.00 (7)	.83	.55
20	90	DMP 2	84	1.00 (1)	.97 (76)	.78 (7)	.92	.51
30	80	DMP 2	84	.00 (1)	.99 (80)	1.00 (3)	.66	.85
40	80	DMP 2	84	1.00 (1)	1.00 (80)	1.00 (3)	1.00	1.00
Mean				.48	.97	.93	.79	.77

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer did not attend first day of the retraining session.

c Events coded by the expert.

TABLE 19

Summary of the Category Marginal, Overall Marginal  
and Cohen's Kappa Observer Agreement Coefficients for  
the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

## Learner Moves

Observer Pair	Expert	Curriculum and Grade	Total Events Observed	Category Material							Overall Marginal	Cohen's Kappa $\kappa$
				Written	Oral	Covert	Interim	Waiting	Off- Task	No Learner Move		
Thursday, March 16, 1978												
10	90	DMP 5	90	.90(29) <sup>c</sup>	.75(8)	.79(15)	.88(15)	.33 (3)	.88(15)	.80 (5)	.76	.53
20	90	DMP 5	90	.90(29)	1.00(8)	.88(15)	.83(15)	1.00 (3)	.73(15)	.71 (5)	.87	.57
30	80	DMP 5	- <sub>b</sub>									
40	80	DMP 5	90	.94(15)	.50(2)	.90(30)	.75 (3)	.68 (15)	.85(13)	.50 (12)	.73	.65
10	90	WDRSD 2	60	1.00 (4)	.67(6)	.97(38)	.00 (0)	.00 (0)	.83 (6)	.67 (12)	.59	.59
20	90	WDRSD 2	66	.75 (4)	1.00(6)	1.00(38)	.00 (0)	.00 (0)	.86 (6)	.83 (12)	.63	.68
30	80	WDRSD 2	-							1.00 (18)	.84	.79
40	80	WDRSD 2	60	1.00(10)	.60(5)	.94(17)	.60 (3)	.88 (7)	.50(15)	.88 (7)	.82	.45
10	90	DMP 2	84	.76(25)	.80(5)	.78(21)	1.00 (3)	.73 (8)	.93(15)	.88 (7)	.85	.62
20	90	DMP 2	84	1.00(25)	.71(5)	.83(21)	.75 (3)	.89 (8)	.93(15)	.88 (7)		
30	80	DMP 2	-							.50 (4)	.64	.40
40	80	DMP 2	78	1.00(13)	.33(4)	.63(38)	.83 (6)	.70 (7)	.50 (6)	.50 (4)		
Mean				.92	.67	.86	.63	.58	.80	.75	.74	.59
Friday, March 17, 1978												
10	90	DMP 5	90	.95(19)	1.00(1)	.96(22)	1.00 (8)	.00 (0)	.90(27)	.85 (13)	.81	.66
20	90	DMP 5	90	.63(19)	1.00(1)	.54(22)	1.00 (8)	.00 (0)	.96(27)	.92 (13)	.74	.63
30	80	DMP 5	90	.79(22)	.86(6)	.81(31)	.50 (2)	1.00 (17)	.90(10)	.00 (2)	.69	.54
40	80	DMP 5	90	.96(22)	1.00(6)	.84(31)	.50 (2)	.59 (17)	.80(10)	1.00 (2)	.81	.59
10	90	WDRSD 2	66	.82 (9)	.38(3)	1.00(25)	.17 (6)	.60 (5)	.80(10)	1.00 (2)	.65	.48
20	90	WDRSD 2	66	.64 (9)	.50(3)	.76(25)	.83 (6)	.71 (5)	.70(10)	1.00 (8)	.74	.59
30	80	WDRSD 2	60	.74(14)	.67(2)	.52(23)	.00 (0)	.44 (8)	.56 (9)	.50 (4)	.49	.50
40	80	WDRSD 2	60	.74(14)	.67(2)	.52(23)	.00 (0)	.44 (8)	.56 (9)	.50 (4)	.62	.62
40	80	WDRSD 2	60	.88(14)	1.00(2)	.88(23)	.00 (0)	.89 (8)	.22 (9)	.50 (4)	.62	.62
10	90	DMP 2	84	.77(13)	.67(2)	.80(24)	.86 (6)	.52 (25)	.50 (7)	1.00 (7)	.73	.48
20	90	DMP 2	84	.54(13)	.33(2)	.89(24)	.83 (6)	.76 (25)	.64 (7)	.78 (7)	.68	.52
30	90	DMP 2	84	.94(16)	1.00(2)	.87(34)	.44 (9)	.67 (4)	.81(16)	1.00 (3)	.82	.56
30	80	DMP 2	84	.94(16)	1.00(2)	.87(34)	.44 (9)	.67 (4)	.81(16)	1.00 (3)	.78	.61
40	80	DMP 2	84	.70(16)	.50(2)	.85(34)	.78 (9)	.75 (4)	.89(16)	1.00 (3)		
Mean				.78	.74	.81	.58	.58	.72	.78	.71	.50

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer 30 did not attend first day of the  
retraining session.

c Events coded by the expert.

d No events were coded for this  
category by either the expert or  
the observer.



TABLE 20

Summary of the Category Marginal, Overall Marginal and Cohen's Kappa Observer Agreement Coefficients for the DMP and WDRSD Observers with the Expert Observers

Retraining Session: March 16 and 17, 1978

Interactions

Observer Pair	Expert	Curriculum and Grade	Total Events Observed	Category Marginal			Overall Marginal	Cohen's Kappa K.
				Target to Student	Teacher to Group	None of the above		
Thursday, March 16, 1978								
10	90	DMP 5	90	.57 (7) <sup>c</sup>	.00 (0)	.95 (79)	.57	.40
20	90	DMP 5	90	.50 (7)	.00 (0)	.98 (79)	.47	.46
30	80	DMP 5	- <sup>b</sup>					
40	80	DMP 5	90	.50 (2)	.81 (13)	.93 (70)	.54	.54
10	90	WDRSD 2	66	.50 (2)	.97 (28)	.91 (32)	.58	.54
20	90	WDRSD 2	66	.40 (2)	.71 (28)	.89 (32)	.46	.40
30	80	WDRSD 2	-					
40	80	WDRSD 2	60	1.00 (1)	.57 (8)	.86 (43)	.70	.58
10	90	DMP 2	84	.60 (5)	1.00 (2)	.97 (73)	.60	.46
20	90	DMP 2	84	.83 (5)	.50 (2)	.96 (73)	.38	.54
30	80	DMP 2	-					
40	80	DMP 2	78	.18 (2)	.75 (9)	.82 (61)	.57	.30
Mean				.56	.59	.92	.54	.47
Friday, March 17, 1978								
10	90	DMP 5	90	.00 (1)	- <sup>d</sup> (0)	.97 (86)	.19	-.01
20	90	DMP 5	90	.00 (1)	- (0)	.98 (86)	.30	.32
30	80	DMP 5	90	.12 (1)	.75 (12)	.92 (72)	.38	.36
40	80	DMP 5	90	.25 (1)	.54 (12)	.78 (72)	.50	.36
10	90	WDRSD 2	66	.43 (3)	.80 (12)	.81 (48)	.38	.42
20	90	WDRSD 2	66	.50 (3)	.86 (12)	.94 (48)	.38	.54
30	80	WDRSD 2	60	.50 (2)	.30 (10)	.90 (45)	.74	.45
40	80	WDRSD 2	60	1.00 (2)	.90 (10)	.98 (45)	.65	.54
10	90	DMP 2	84	.00 (0)	.80 (4)	.99 (75)	.47	.49
20	90	DMP 2	84	.00 (0)	.75 (4)	.99 (75)	.42	.44
30	80	DMP 2	84	.50 (2)	1.00 (9)	.97 (68)	.35	.32
40	80	DMP 2	84	1.00 (2)	1.00 (9)	1.00 (68)	.54	.42
Mean				.36	.77	.94	.44	.39

a Observers 10 and 20 observed at WDRSD schools.  
Observers 30 and 40 observed at DMP schools.

b Observer 30 did not attend first day of retraining session.

c Events coded by the expert.

d No events were coded for this category by either the expert or the observer.

TABLE 21

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Summary of Means of the Category  
Marginal for Each Day of the WDRSD and DMP  
Training and Retraining Session

Observation Category	<u>Training</u>		<u>Retraining</u>	
	Thursday	Friday	Thursday	Friday
Self Paced	.94	.80	.90	.87
Other Paced	.85	.83	.70	.82
Individual	.84	.82	.83	.88
Pair	.64	.53	.60	.76
Small Group	.70	.40	.35	.44
Large Group	.84	.66	.78	.77
Paper/pencil	.94	.80	.88	.92
Manipulatives	.75	.72	.19	.49
Games	-	.24	.00	.39
Audio Visual	-	.00	-	.00
Printed Material	.36	.26	.76	.33
Other Material	-	-	.95	.48
Engaged-Written	.78	.65	.92	.78
Engaged-Oral	.39	.35	.67	.74
Engaged-Covert	.82	.83	.86	.81
Non-engaged Interim	.76	.46	.63	.58
Non-engaged Waiting	.49	.84	.58	.58
Non-engaged Off-task	.72	.73	.80	.72
Target to Student	.67	.61	.56	.36
Teacher to Group	.77	.45	.59	.77

Summary of Means of the Cohen's Kappa  
for Sets of Categories By Day for the  
WDRSD and DMP Training and Retraining Sessions

Observation Category Set	<u>Training</u>		<u>Retraining</u>	
	Thursday	Friday	Thursday	Friday
Pacing	.76	.66	.65	.76
Grouping	.74	.64	.67	.74
Paper/pencil	.70	.65	.74	.75
Manipulatives	.68	.62	.44	.63
Game	-	.54	.50	.51
Audio Visual	-	.83	-	.82
Printed Material	.59	.57	.73	.69
Other Material	-	-	.81	.77
Learner Moves	.51	.52	.59	.56
Interactions	.51	.38	.47	.39

TABLE 23

Summary of Generalizability Coefficients For  
Observer by Class by Day for the  
WDRSD and DMP Retraining Session

Observation Category	Observer Group	
	10 x 20 x 90	40 x 80
General Content	.00	.96
Self Paced	1.00	1.00
Other Paced	.99	.99
Individual	1.00	.99
Pair	.34	.74
Small Group	.88	.98
Large Group	.98	1.00
Paper/pencil	.99	.96
Engaged Written	.94	.81
Engaged Oral	.12	.00
Engaged Covert	.95	.60
Total Engagement	.46	.86
Non-engaged Interim	.98	.63
Non-engaged Waiting	.96	.99
Non-engaged Off Task	.94	.76
Total Non-engagement	.98	.96

### On-Site Visits

The summary of the agreement coefficients from the on-site visits to each of the four schools are given in Tables 24 through 27. Listed for each category where at least one event was coded by an observer is the marginal agreement. Then for the each set of categories, the category marginal agreements and Cohen's  $\kappa$  are listed. The contingency tables showing the frequencies for each category for the on-site visits are in Appendix C.

On-site visits were made to each school by one of the Phase IV staff members as soon as possible after the training session. The purpose of these visits was to check on the observer's facility in using the observation system and to discuss specific questions that may have arisen after the observer had done some observations at his or her school. This first on-site visit was considered as a part of the training procedures. A second on-site visit was made to three of the schools after the re-training session. This visit was made to check on the observer agreement after the observer was familiar with the system and had done several observations. A second on-site visit was not made at School 440 because observer 40 had always shown a high degree of facility in using the system and it was difficult to arrange a time for one of the experts to visit the school. For each visit, observations were generally made at both Grades 2 and 5. Sometimes this was impossible and only one grade level was observed. The retraining session was during week 9. The first tests were administered during week 1 so that the first observations

were done during week 2. Thus on-site visits during weeks 2 through 8 were done before the retraining sessions. Visits made during weeks 10 through 16 were made after the retraining session.

School 452 (Observer 10). For the on-site visit during week 5, the marginal agreements for General Content and pacing are high, generally above .80. The coefficients for the grouping are reasonably high except for pair and small group which both occurred very infrequently. The only material observed being used was paper/pencil which was coded with agreement for grade 5 (.96) but with lower agreement for grade 2 (.60). The high category coefficients for paper and pencil materials at grade 2 indicate that there was high agreement when paper/pencil materials were not in use. There was some disagreement on the learner move categories indicating that the observer still had not gained adequate facility in distinguishing among the categories. There was relatively high agreement in coding when students were engaged (.95 and .74) and non-engaged (.87 and .73). For grade 2 the agreements for the teacher to group and for no interactions are high. However, for grade 5 these are much lower indicating the observer still lacked some facility in coding interactions consistently.

The category Cohen's  $\kappa$  for grade 2 for week 5 are all relatively high (above .73). This indicates that even though there was low agreement on some of the individual categories within a set (e.g. pair, small group, and engaged-oral) these did not occur very frequently and that the observers agreed in coding many of the events. The Cohen's  $\kappa$ 's for grade 5 were

TABLE 24

Observer Agreement Coefficients for  
On-Site Visits to WDRSD School 452  
Observers 10 and 90

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Categories	Grade 2			Grade 5			Grade 2		
	Week 5 Day 3			Week 5 Day 3			Week 15 Day 5		
	(Total Events 72)			(Total Events 66)			(Total Events 72)		
	Marginal Agreement	Category Agreement	Cohen's Kappa $\kappa$	Marginal Agreement	Category Agreement	Cohen's Kappa $\kappa$	Marginal Agreement	Category Agreement	Cohen's Kappa $\kappa$
General Content	.86 (18) <sup>a</sup>	.80	.90	.75 (4)	.75	.85	1.00 (27)	.89	.98
Self Paced	.86 (6)	.88	.83	1.00 (14)	.91	.85	.88 (14)	.94	.91
Other Paced	.87 (31)			.98 (48)			.94 (31)		
Individual	1.00 (6)	.68	.84	.77 (10)	.62	.68	.62 (8)	.79	.77
Pair	.50 (2)			.00 (0)			.90 (10)		
Small Group	.00 (1)			-			.50 (6)		
Large Group	.96 (28)			.94 (52)			.95 (21)		
Paper/pencil	.60 (10)	.83	.86	.96 (47)	.88	.93	.96 (24)	.97	.98
Manipulatives	-			-			-		
Games	-			-			-		
Audio-Visual	-			-			-		
Printed Materials	-			-			.00 (2)	.65	.94
Other Materials	-			-			-		
Engaged-written	.17 (6)	.50	.70	.40 (10)	.66	.40	.88 (8)	.80	.77
Engaged-oral	.00 (0)			-			1.00 (3)		
Engaged-covert	.89 (16)			.54 (19)			.96 (24)		
Total Engagement	.95 (22)			.74 (29)			.94 (35)		
Non-engaged interim	.50 (3)			1.00 (3)			1.00 (2)		
Non-engaged waiting	.00 (5)			.48 (21)			.40 (5)		
Non-engaged off-task	1.00 (7)			.82 (9)			.38 (3)		
Total Non-engagement	.87 (15)			.73 (33)			.83 (10)		
Target to student	.00 (0)	.44	.73	.00 (1)	.30	.36	.00 (0)	.38	.61
Teacher to group	.86 (7)			.38 (29)			.88 (14)		
No Interactions	.98 (59)			.67 (31)			.94 (52)		

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<sup>a</sup> Events coded by the expert.

generally lower, particularly for pacing (.56), grouping (.68), learner moves (.40) and for interactions (.36). Thus the observer at this point had not yet gained the expected facility in using the system consistently. The coding of these two classes were discussed in detail during the on-site visit.

The agreement coefficients were generally higher in coding grade 2 during week 15. Only individual, small group, non-engaged waiting and non-engaged off-task have low marginal coefficients. The Cohen's  $\kappa$ 's for four of the sets of categories are extremely high (above .90) and for the other three sets of categories are moderately high (above .60). Thus the ability of Observer 10 had improved after using the system and had reached an acceptable level in coding most of the categories.

School 504 (Observer 20). The marginal agreement coefficients for Observer 20 (Table 25) were high except for the learner move categories. Observer 20 had difficulty in distinguishing between engaged-covert and non-engaged waiting. This resulted in a low agreement coefficient for each of the categories and for total engagement and total non-engagement. The Cohen's  $\kappa$  also reflect a high facility in coding all the sets of categories except for learner moves ( $\kappa = .47$ ).

Observer 20 had maintained her ability in coding the categories other than learner moves and also had improved greatly in coding learner moves by the time of the on-site visit after the retraining session, week 15. The marginal agreement coefficients, with the exception of a few with low frequencies, are high for both grade levels. The Cohen's  $\kappa$ 's are all high



TABLE 25

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Observer Agreement Coefficients for  
On-Site Visits to WDRSD School 504  
Observers 20 and 90

Categories	Grade 2			Grade 2			Grade 5		
	Week 4 Day 1			Week 15 Day 2			Week 15 Day 2		
	(Total Events 54)			(Total Events 54)			(Total Events 138)		
	Marginal Agreement	Category Agreement	Cohen's Kappa $\kappa$	Marginal Agreement	Category Agreement	Cohen's Kappa $\kappa$	Marginal Agreement	Category Agreement	Cohen's Kappa $\kappa$
General Content	.88 (8) <sup>a</sup>	.74	.93	1.00 (10)	1.00	1.00	1.00 (22)	1.00	1.00
Self Paced	.74 (14)	.83	.81	.92 (11)	.96	.97	.95 (88)	.65	.92
Other Paced	.88 (32)			.97 (33)			.00 (5)		
Individual	.89 (16)	.67	.81	.90 (9)	.78	.90	.99 (82)	.97	.96
Pair	.00 (0)			1.00			.91 (10)		
Small Group	-			.00 (1)			1.00 (1)		
Large Group	.93 (30)			1.00 (32)			-		
Paper/pencil	.94 (29)	.92	.90	1.00 (12)	1.00	1.00	.89 (42)	.93	.84
Manipulatives	-			-			-		
Games	-			-			-		
Audio-Visual	-			-			-		
Printed Materials	-			1.00 (4)	1.00	1.00	.87 (71)	.86	.85
Other Materials	-			1.00 (4)	1.00	1.00	.00 (1)	.66	.98
Engaged-written	.80 (8)	.75	.47	.67 (2)	.77	.70	.68 (15)	.71	.84
Engaged-oral	1.00 (1)			.50 (2)			.00 (0)		
Engaged-covert	.59 (13)			1.00 (18)			.85 (52)		
Total Engagement	.67 (22)			1.00 (22)			.97 (67)		
Non-engaged interim	.50 (1)			.57 (7)			.91 (10)		
Non-engaged waiting	.50 (22)			.80 (8)			-		
Non-engaged off-task	1.00 (1)			.88 (7)			.81 (16)		
Total Non-engagement	.58 (24)			1.00 (22)			.92 (26)		
Target to student	.00 (0)	.74	.93	1.00 (1)	.71	.65	.00 (0)	.20	.33
Teacher to group	.80 (8)			.87 (13)			-		
No Interactions	.96 (45)			.97 (39)			1.00 (135)		

74 a Events coded by the expert.

(above .70) except for interactions where there was some disagreement as to what the interaction was on a very small number of events. There was extremely high agreement when there were no interactions. Thus Observer 20 had gained a very high level of facility in using the system.

School 433 (Observer 30). Observer 30 was having more difficulty with the observation system (Table 26) by week 4 than did the other three observers. There is some question about the meaning of these coefficients for this on-site visit since early in the morning the observer's apartment was destroyed by fire which caused some distraction to the observer. The observer did have a misconception of individual grouping. Even though students were working by themselves on worksheets, the observer coded this as a large group activity since all the students were doing the same worksheet. This misinterpretation of grouping was discussed during the visit. By week 16 the observer had gained a high level of facility in using the system as indicated by the high marginal coefficients for most categories. Those categories with low coefficients were only those coded very infrequently by the expert observer. The Cohen's  $K$  for the materials categories of games, printed materials and other do not have much meaning since these categories were observed so infrequently.

School 440 (Observer 40). With the exception of learner moves, the agreement coefficients for Observer 40 are extremely high (Table 27) for the on-site visit during week 4. Observer 40 had some difficulty in distinguishing among engaged-covert and the other learner moves. She was not

TABLE 26

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Observer Agreement Coefficients for  
On-site Visits to DMP School 433  
Observers 30 and 80

Categories	Grade 2			Grade 5		
	Week 4 Day 4 (Total Events 54)			Week 16 Day 2 (Total Events 96)		
	Marginal Agreement	Category Agreement	Cohen's Kappa K	Marginal Agreement	Category Agreement	Cohen's Kappa K
General Content	.67 (2) <sup>a</sup>	.82	.79	.60 (5)	.37	.48
Self Paced	.04 (1)	.42	.15	1.00 (21)	.86	.87
Other Paced	.55 (51)			.97 (70)		
Individual	.04 (1)	.42	.15	.90 (19)	.80	.88
Pair	- (0)			.50 (2)		
Small Group	- (0)			1.00 (2)		
Large Group	.55 (51)			.99 (68)		
Paper/pencil	.98 (52)	.82	.79	1.00 (41)	.85	.90
Manipulatives	-			-		
Games	-			.67 (2)	.75	.68
Audio Visual	-			.00	.52	.42
Printed Materials	-			-		
Other Materials	-			.00 (1)	.53	.42
Engaged-Written	.94 (17)	.60	.54	.75 (12)	.76	.65
Engaged-Oral	.50 (2)			.25 (1)		
Engaged-Covert	.57 (21)			.94 (47)		
Total Engagement	.78 (40)			.94 (60)		
Non-engaged Interim	.67 (3)			1.00 (5)		
Non-engaged Waiting	.61 (8)			1.00 (18)		
Non-engaged Off Task	.20 (1)			.75 (8)		
Total Non-engagement	.60 (12)			.94 (31)		
Target to Student	-	.65	.46	.40 (2)	.44	.60
Teacher to Group	.58 (12)			.82 (27)		
No Interactions	.95 (40)			.97 (66)		

a Events coded by the expert.

b No events coded by either the observer or the expert.

Observer Agreement Coefficients on Observation Categories  
for On-Site Visit for DMP School 440  
Observers 40 and 80

Categories	Grade 5		
	Week 4 Day 4 (Total Events 96)		
	Marginal Agreement	Category Marginal	Cohen's Kappa $\kappa$
General Content	1.00 (9) <sup>a</sup>	1.00	1.00
Self Paced	.99 (77)	.96	.97
Other Paced	.91 (10)		
Individual	.99 (77)	.96	.97
Pair	-		
Small Group	-		
Large Group	.91 (10)		
Paper/Pencil	.95 (73)	.89	.77
Manipulatives	-		
Games	-		
Audio Visual	-		
Printed Materials	.94 (17)	.98	.98
Other Materials	1.00 (1)	1.00	1.00
Engaged-Written	.79 (34)	.56	.66
Engaged-Oral	.00 (0)		
Engaged-Covert	.38 (26)		
Total Engagement	.92 (60)		
Non-engaged Interim	.50 (2)		
Non-engaged Waiting	.46 (6)		
Non-engaged Off-task	.79 (19)		
Total Non-engagement	.84 (27)		
Target to Student	.00 (2)	.49	.63
Teacher to Group	-		
No interactions	.96 (84)		

a Events coded by the expert.

as specific on whether or not the student was actually writing or only was reading the problem with a pencil in hand. This caused some disagreement on these specific categories, however agreement on total engagement (.92) and total non-engagement (.84) was high. The Cohen's  $\kappa$ 's for the sets of categories were extremely high for general content (1.00), pacing (.97), grouping (.97), printed materials (.98) and other materials (1.00). The Cohen's  $\kappa$ 's were moderately high for the other categories - paper/pencil (.77), learner moves (.66), and interactions (.63).

On-site visits Summary. The results of the on-site visits indicate that the observers still had difficulty in coding some categories after the training session. The coding of learner moves seems to require more time than was given in the training session for observers to gain facility in distinguishing among the categories. The observers could, however, generally distinguish whether or not students were engaged. All of the observers had reached a high degree of facility in using the system by the time of the second period, after the retraining session.

Conclusions

The observation categories that had high interobserver agreements for the training session, retraining sessions, and on-site visits are:

Self-paced

Other-paced

Individual

Large Group

Paper/pencil

Engaged-written

Engaged-covert

Non-engaged off-task

For the other categories where there were lower interobserver agreements, most of these categories occurred very infrequently. Interobserver agreement was relatively high in coding pairs and small groups of students that were formally designated by the teacher. Disagreement occurred when there were occasional pairs and small groups formed to have a question answered and only existed for a short period of time. Thus pair and small group time should be interpreted as time spent in these groupings as directed by the teacher and for a measurable amount of time of the class period.

Material categories other than paper/pencil occurred very infrequently. There was high agreement that these materials were not used, but the lower agreement on when these materials were used reflects the

low frequencies of occurrence of the different types of materials in the classes observed. The most important agreement on the material category is the high agreement that the materials were not used.

Three learner moves (engaged-oral, non-engaged interim and non-engaged waiting) had low interobserver agreements. Students were rarely engaged in talking. Thus there were very few instances of engaged-oral for the observers to reach agreement. However, there was improvement on this category from the training session to the retraining session. Non-engaged interim is a more nebulous category which the low interobserver agreements on this category reflect. Non-engaged waiting also appears to be less well defined as reflected by the low interobserver agreements. However, when the three engaged categories and the three non-engaged categories are combined into two groups, total engagement and total non-engagement, the agreement is generally high as reflected by the generalizability coefficients for the retraining session.

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APPENDIX A

Contingency Tables for each set of Observation Categories  
for Pairs of Observers for the WDRSD and DMP Training Session  
(January 10-13 1978)

## Appendix A

Included in this appendix are:

Tables	28 - 47	General Content
Tables	48 - 67	Race
Tables	68 - 87	Grouping
Tables	88 - 107	Paper/Pencil
Tables	108 - 118	Manipulatives
Tables	119 - 122	Games
Tables	123 - 124	Audio Visual Aids
Tables	125 - 136	Printed Materials
Tables	137 - 156	Learner Moves
Tables	157 - 176	Interactions

Table 23

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10    Expert 90  
School 801    Grade 2  
Week 0    Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	54	54	1.000	1.000	-----
Marginal Totals		0	0	0	0	0	0	54	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: -----

Table 29

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0    Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
wait	1	0	0	0	0	0	0	0	0	-----	0.000	-----
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	0	0	-----	0.000	-----
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonecademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	1	0	1	1	0	0	51	54	.944	.944	0.000
Marginal Totals		1	0	1	1	0	0	51	54			

Category Marginal Agreement: .236

Cohen's Kappa: 0.000

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Table 30

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	0	0	0	0	1	3	.667	.667	.655
Transition	2	0	4	0	0	0	0	2	6	.667	.667	.643
Management	3	0	0	1	0	0	0	1	2	.500	.500	.492
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	1	0	0	48	49	.980	.942	.847
Marginal Totals		2	4	1	1	0	0	52	60			

Category Marginal Agreement: .555

Cohen's Kappa: .706

Table 31

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0    Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	0	0	0	0	1	3	.667	.667	.655
Transition	2	0	6	0	0	0	0	0	6	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	2	2	0.000	0.000	0.000
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	1	0	0	48	49	.980	.961	.864
Marginal Totals		2	6	0	1	0	0	51	60			

Category Marginal Agreement: .525

Cohen's Kappa: .773

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Table 32

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	3	2	0	0	0	0	0	5	.600	.1000	.575
Transition	2	1	5	1	0	0	0	2	9	.556	.778	.515
Management	3	1	0	3	0	0	0	1	5	.600	.800	.580
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	2	0	0	63	65	.969	.985	.856
Marginal Totals		5	7	4	2	0	0	66	84			

Category Marginal Agreement: .713

Cohen's Kappa: .684

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Table 33

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 - Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	3	1	1	0	0	0	0	5	.600	.600	.585
Transition	2	0	6	0	0	0	0	3	9	.667	.669	.632
Management	3	0	1	4	0	0	0	0	5	.600	1.000	.787
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	1	0	0	64	65	.985	.970	.924
<b>Marginal Totals</b>		<b>3</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>84</b>			

Category Marginal Agreement: .692

Cohen's Kappa: .773

Table 34

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 90  
School 801 Grade 5  
Week 0 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	0.000	-----
Transition	2	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Management	3	1	0	0	0	0	0	0	1	0.000	0.000	0.000
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	3	3	0.000	0.000	0.000
Other Academic	6	0	0	0	2	0	0	0	2	0.000	0.000	0.000
None of the Above	7	4	0	0	0	0	0	67	71	.944	1.000	.372
Marginal Totals		5	0	0	2	0	0	71	78			

Category Marginal Agreement: .143

Cohen's Kappa: .177

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Table 35

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on General Content  
 Observer 40 Expert 90  
 School 801 Grade 5  
 Week 0 Day 4  
 DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	1	0	0	0	0	0	1	1.000	1.000	1.000
Management	3	0	0	1	0	0	0	0	1	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonecademic	5	0	0	0	3	0	0	0	3	0.000	0.000	0.000
Other Academic	6	0	0	0	2	0	0	0	2	0.000	0.000	0.000
None of the Above	7	0	0	0	0	0	0	71	71	1.000	1.000	1.000
Marginal Totals		0	1	1	5	0	0	71	78			

Category Marginal Agreement: .500

Cohen's Kappa: .625

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Table 36

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	1	0	0	0	0	0	0	1	1.000	1.000	1.000
Transition	2	0	1	1	0	0	0	0	2	.500	.500	.483
Management	3	0	0	0	0	0	0	0	0	-----	0.000	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	1	0	0	0	26	27	.963	.963	.722
Marginal Totals		1	1	2	0	0	0	26	30			

Category Marginal Agreement: .616

Cohen's Kappa: .692

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Table 37

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
wait	1	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Transition	2	0	2	0	0	0	0	0	2	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	27	27	1.000	.964	1.000
Marginal Totals		0	2	0	0	0	0	28	30			

Category Marginal Agreement: .658

Cohen's Kappa: .766

Table 38

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	1	0	0	0	1	0	0	2	.500	.500	.483
Transition	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Management	3	0	0	1	0	0	0	0	1	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	0.000	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	3	0	0	0	0	24	27	.889	.889	.444
Marginal Totals		1	3	1	0	1	0	24	30			

Category Marginal Agreement: .478

Cohen's Kappa: .518

Table 39

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	1	0	0	0	0	0	1	2	.500	.500	.483
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	1	0	0	0	0	1	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonecademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	27	27	1.000	.966	1.000
Marginal Totals		1	0	1	0	0	0	28	30			

Category Marginal Agreement: .621

Cohen's Kappa: .787

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Table 40

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	1	0	0	0	0	0	1	1.000	.500	1.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	1	0	0	0	0	52	53	.981	.981	.491
Marginal Totals		0	2	0	0	0	0	52	54			

Category Marginal Agreement: .741

Cohen's Kappa: .658

Table 41

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 801 Gradg 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	0	0	0	0	0	1	1	0.000	1,000	-.019
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	1	0	0	0	0	52	53	.981	1,000	-.019
Marginal Totals		0	1	0	0	0	0	53	54			

Category Marginal Agreement: 1,000

Cohen's Kappa: -.019

1.00

Table 42

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 80	Cat. No.	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	-----	0.000	-----	
Transition	2	0	1	0	0	0	0	1	1.000	1.000	1.000	
Management	3	0	0	2	0	0	0	1	.667	.667	.654	
Break	4	0	0	0	0	0	0	0	-----	0.000	-----	
Nonacademic	5	0	0	0	1	0	0	0	0.000	0.000	0.000	
Other Academic	6	0	0	0	0	0	0	0	-----	-----	-----	
None of the Above	7	3	0	0	0	0	0	46	.939	.939	.828	
Marginal Totals		3	1	2	1	0	0	47	54			

Category Marginal Agreement: .438

Cohen's Kappa: .554

Table 43

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WDRSD-

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	1	0	0	0	0	0	1	1.000	1.000	1.000
Management	3	0	0	3	0	0	0	0	3	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	1	0	0	0	1	0.000	0.000	0.000
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	49	49	1.000	1.000	1.000
Marginal Totals		0	1	3	1	0	0	49	54			

Category Marginal Agreement: .600  
Cohen's Kappa: .893

Table 44-1

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	1	0	0	0	0	3	.667	.667	.658
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	2	2	0.000	.333	-.083
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	5	0	0	0	5	5	.932	.959	.332
Marginal Totals		2	0	6	0	0	0	7	7			

Category Marginal Agreement: .653

Cohen's Kappa: .347

Table 45

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	2	0	0	0	0	0	1	3	.667	1.000	.653
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	2	2	0.000	0.000	0.000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	1	0	0	0	0	0	72	73	.986	.973	.644
Marginal Totals		3	0	0	0	0	0	75	78			

Category Marginal Agreement: .653

Cohen's Kappa: .480

Table 46

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	0	0	0	0	0	2	1.000	.400	1.000
Transition	2	0	2	0	0	0	0	2	4	.500	.750	.481
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	1	0	0	1	0	0	0	2	.500	.500	.494
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	2	1	0	0	0	0	73	76	.961	.987	.632
Marginal Totals		5	3	0	1	0	0	75	84			

Category Marginal Agreement: .659

Cohen's Kappa: .622

Table, 47

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

-Reliability on General Content-

Observer 10 Expert 90

School 801 Grade 2

Week 0 Day 5

DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	0	0	0	0	0	2	1.000	.667	1.000
Transition	2	0	2	0	0	0	0	2	4	.500	.500	.488
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	1	0	0	1	0	0	0	2	.500	.500	.494
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	76	76	1.000	.974	1.000
Marginal Totals		3	2	0	1	0	0	78	84			

Category Marginal Agreement: .660

Cohen's Kappa: .773



Table 48

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
self	1	30	0	0	30	1.000	.857	1.000
other	2	5	19	0	24	.792	.792	.679
Neither	3	0	0	0	0	-----	-----	-----
Marginal Totals		35	19	0	54			

Category Marginal Agreement: .824

Cohen's Kappa: .809

Table 49

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0        Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	27	2	1	30	.900	.938	.755
Other	2	5	17	2	24	.708	.792	.550
Neither	3	0	0	0	0	-----	0.000	-----
Marginal Totals		32	19	3	54			

category Marginal Agreement: .576

Cohen's Kappa: .640

Table 50

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
WORSO

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	33	0	1	34	.971	1.000	.932
Other	2	0	15	0	15	1.000	.833	1.000
Neither	3	1	3	7	11	.636	.727	.580
Marginal Totals		34	18	8	60			

Category Marginal Agreement: .854

Cohen's Kappa: .856

Table 51

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	33	0	1	34	.971	1.000	.932
Other	2	0	15	0	15	1.000	.882	1.000
Neither	3	1	2	8	11	.727	.818	.679
Marginal Totals		34	17	9	60			

Category Marginal Agreement: .900

Cohen's Kappa: .885

Table 52

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 10 Expert 80  
 School 801 Grade 2  
 Week 0 Day 4  
 DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	27	5	2	34	.794	.941	.667
Other	2	4	27	0	31	.871	.939	.787
Neither	3	1	1	17	19	.895	1.000	.864
Marginal Totals		32	33	19	84			

Category Marginal Agreement: .960

Cohen's Kappa: .762

Table 53

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

102

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	30	3	1	34	.882	.895	.785
Other	2	7	24	0	31	.774	.871	.667
Neither	3	1	0	18	19	.947	1.000	.932
Marginal Totals		38	27	19	84			.118

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category Marginal Agreement: .922

Cohen's Kappa: .779

Table 54

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 90  
School 801    Grade 2  
Week 0        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	46	1	1	48	.958	.857	.852
Other	2	5	14	3	22	.636	.682	.550
Neither	3	5	0	3	8	.375	.875	.313
Marginal Totals		56	15	7	78			

Category Marginal Agreement: .805

Cohen's Kappa: .611

Table 55

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	44	4	0	48	.917	.980	.776
Other	2	4	18	0	22	.818	1.000	.747
Neither	3	1	0	7	8	.875	.875	.863
Marginal Totals		49	22	7	78			

Category Marginal Agreement: .952  
Cohen's Kappa: .780

122

121



Table 56

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10 .Expert 90  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	25	0	2	27	.926	.926	.556
Other	2	0	0	0	0	-----	-----	-----
Neither	3	0	0	3	3	1.000	.600	1.000
Marginal Totals		25	0	5	30			

Category Marginal Agreement: .763

Cohen's Kappa: .714

Table 57

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace:  
Observer 20    Expert 90  
School 801    Grade 5  
Week 0        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	27	0	0	27	1.000	.964	1.000
Other	2	0	0	0	0	-----	-----	-----
Neither	3	1	0	2	3	.667	.667	.643
Marginal Totals		28	0	2	30			

category Marginal Agreement: .815

Cohen's Kappa: .783

Table 58

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 80  
School 801    Grade 5  
Week 0        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	11	0	0	11	1.000	1.000	1.000
Other	2	0	12	0	12	1.000	1.000	1.000
Neither	3	0	0	7	7	1.000	1.000	1.000
Marginal Totals		11	12	7	30			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 59

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40    Expert 80  
School 801    Grade 5  
Week 0    Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	11	0	0	11	1.000	1.000	1.000
Other	2	0	12	0	12	1.000	.923	1.000
Neither	3	0	1	6	7	.857	.857	.821
Marginal Totals		11	13	6	30			

category Marginal Agreement: .927

Cohen's Kappa: .948

Table 60

Phase IV - IGE Evaluation Project /  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	0	5	1	6	0.000	0.000	0.000
Other	2	0	46	1	47	.979	.922	.617
Neither	3	0	0	1	1	1.000	.333	1.000
Marginal Totals		0	51	3	54			

Category Marginal Agreement: .418

Cohen's Kappa: .267

Table 61

110

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	0	5	1	6	0.000	0.000	0.000
Other	2	0	45	2	47	.957	.922	.234
Neither	3	0	1	0	1	0.000	.333	-.059
Marginal Totals		0	51	3	54			

Category Marginal Agreement: .418

Cohen's Kappa: .058

Table 62

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	41	4	2	47	.872	.894	.426
Other	2	0	0	2	2	0.000	.400	-.102
Neither	3	1	1	3	5	.600	.714	.540
Marginal Totals		42	5	7	54			

Category Marginal Agreement: .669

Cohen's Kappa: .398

Table 63

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

112

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	47	0	0	47	1.000	1.000	1.000
Other	2	0	2	0	2	1.000	1.000	1.000
Neither	3	0	0	5	5	1.000	1.000	1.000
Marginal Totals		47	2	5	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

133

137



Table 64

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	31	1	0	32	.969	.969	.948
Other	2	0	36	5	41	.878	.951	.756
Neither	3	0	2	3	5	.600	.625	.554
Marginal Totals		31	39	8	78			

Category Marginal Agreement: .848

Cohen's Kappa: .819

Table 65

114

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	32	0	0	32	1.000	1.000	1.000
Other	2	0	39	2	41	.951	.976	.894
Neither	3	0	3	2	5	.400	.800	.368
Marginal Totals		32	42	4	78			

Category Marginal Agreement: .925

Cohen's Kappa: .882

Table 66

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	56	8	1	65	.862	.985	.418
Other	2	8	1	2	11	.091	.818	-.018
Neither	3	0	0	8	8	1.000	.727	1.000
Marginal Totals		64	9	11	84			

category Marginal Agreement: .843

Cohen's Kappa: .411

Table 67

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	63	2	0	65	.969	.915	.801
Other	2	8	2	1	11	.182	.364	.141
Neither	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		71	4	9	84			

category Marginal Agreement: .723

Cohen's Kappa: .603



Table 68

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	20	0	0	0	0	20	1.000	.645	1.000
Pair	2	2	2	1	0	0	5	.400	.400	.377
Small Group (3-8)	3	5	0	7	1	0	13	.538	.615	.458
Large Group (>8)	4	4	0	0	12	0	16	.750	.813	.671
None of the above	5	0	0	0	0	0	0	-----	-----	-----
Marginal Totals		31	2	8	13	0	54			

Category Marginal Agreement: .618

Cohen's Kappa: .644

Table 69

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0    Day 4  
WDRSD

118

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	19	0	0	0	1	20	.950	.741	.900
Pair	2	4	1	0	0	0	5	.200	.400	.169
Small Group (3-8)	3	1	1	10	0	1	13	.769	.769	.717
Large Group (>8)	4	3	0	0	12	1	16	.750	.750	.679
None of the above	5	0	0	0	0	0	0	-----	0.000	-----
Marginal Totals		27	3	10	12	3	54			

Category Marginal Agreement: .532

Cohen's Kappa: .683

Table 70

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 30    Expert 80  
School 801    Grade 2  
Week 0    Day 4  
WDRSO

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extensor of Kappa
		1	2	3	4	5				
Individual	1	28	2	0	0	1	31	.903	.935	.813
Pair	2	0	3	0	0	0	3	1.000	.600	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	15	0	15	1.000	.833	1.000
None of the above	5	1	0	0	3	7	11	.636	.727	.580
Marginal Totals		29	3	0	18	8	60			

Category Marginal Agreement: .774

Cohen's Kappa: .820

Table 71

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

120

Reliability on Grouping  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	27	3	0	0	1	31	.871	.903	.758
Pair	2	0	3	0	0	0	3	1.000	.500	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	15	0	15	1.000	.882	1.000
None of the above	5	1	0	0	2	8	11	.727	.818	.679
Marginal Totals		28	6	0	17	9	60			

Category Marginal Agreement: .776

Cohen's Kappa: .822



Table 72

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	20	0	2	2	2	26	.769	.962	.671
Pair	2	2	6	0	1	0	9	.667	.667	.641
Small Group (3-8)	3	2	0	9	0	0	11	.818	1.000	.791
Large Group (>8)	4	0	0	0	19	0	19	1.000	.826	1.000
None of the above	5	1	0	0	1	17	19	.895	1.000	.864
Marginal Totals		25	6	11	23	19	84			

Category Marginal Agreement: .891

Cohen's Kappa: .799

Table 73

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

122

Reliability on Grouping  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	20	0	4	1	1	26	.769	.923	.677
Pair	2	1	7	1	0	0	9	.778	.778	.758
Small Group (3-8)	3	2	0	9	0	0	11	.818	.786	.782
Large Group (>8)	4	0	0	0	19	0	19	1.000	.950	1.000
None of the above	5	1	0	0	0	18	19	.947	1.000	.932
Marginal Totals		24	7	14	20	19	84			

Category Marginal Agreement: .887

Cohen's Kappa: .831

158

157

Table 74

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 30    Expert 90  
School 801    Grade 5  
Week 0        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	36	1	0	0	1	38	.947	.745	.848
Pair	2	3	5	0	0	0	8	.625	.750	.594
Small Group (3-8)	3	7	0	6	1	0	14	.429	.429	.381
Large Group (>8)	4	0	0	0	7	3	10	.700	.800	.666
None of the above	5	5	0	0	0	3	8	.375	.875	.313
Marginal Totals		51	6	6	8	7	78			

Category Marginal Agreement: .720

Cohen's Kappa: .578

Table 75

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

124

Reliability on Grouping  
Observer 40 Expert 90  
School 801 Grade 5  
Week 0 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	35	2	0	1	0	38	.921	.864	.819
Pair	2	2	6	0	0	0	8	.750	1.000	.721
Small Group (3-8)	3	6	0	8	0	0	14	.571	.571	.522
Large Group (>8)	4	0	0	0	10	0	10	1.000	.909	1.000
None of the above	5	1	0	0	0	7	8	.875	.875	.863
Marginal Totals		44	8	8	11	7	78			

Category Marginal Agreement: .844

Cohen's Kappa: .770

161

162

Table 76

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 90  
School 801    Grade 5  
Week 0        Day 5  
DMP

Category chosen by Expert 90	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
	Cat. #	1	2	3	4					5
Individual	1	22	0	0	0	2	24	.917	1.000	.583
Pair	2	0	1	0	0	0	1	1.000	1.000	1.000
Small Group (3-8)	3	1	0	0	0	0	1	0.000	0.000	0.000
Large Group (>8)	4	1	0	0	0	0	1	0.000	0.000	0.000
None of the above	5	0	0	0	0	3	3	1.000	.600	1.000
Marginal Totals		24	1	0	0	5	30			

Category Marginal Agreement: .520

Cohen's Kappa: .610

Table 77

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

126

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 5  
Week 0        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	24	0	0	0	0	24	1.000	.857	1.000
Pair	2	1	0	0	0	0	1	0.000	0.000	0.000
Small Group (3-8)	3	1	0	0	0	0	1	0.000	0.000	0.000
Large Group (>8)	4	1	0	0	0	0	1	0.000	0.000	0.000
None of the above	5	1	0	0	0	2	3	.667	.667	.643
Marginal Totals		28	0	0	0	2	30			

Category Marginal Agreement: .305

Cohen's Kappa: .459

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Table 78

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 30    Expert 80  
School 801    Grade 5  
Week 0        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	9	0	0	0	0	9	1.000	.818	1.000
Pair	2	1	0	0	0	0	1	0.000	0.000	0.000
Small Group (3-8)	3	1	0	0	0	0	1	0.000	0.000	0.000
Large Group (>8)	4	0	0	0	12	0	12	1.000	1.000	1.000
None of the above	5	0	0	0	0	7	7	1.000	1.000	1.000
Marginal Totals		11	0	0	12	7	30			

Category Marginal Agreement: .564

Cohen's Kappa: .901

Table 79

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

128

Reliability on Grouping  
Observer 40    Expert 80  
School 801    Grade 5  
Week 0        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	9	0	0	0	0	9	1.000	.900	1.000
Pair	2	1	0	0	0	0	1	0.000	0.000	0.000
Small Group (3-8)	3	0	0	1	0	0	1	1.000	1.000	1.000
Large Group (>8)	4	0	0	0	12	0	12	1.000	.923	1.000
None of the above	5	0	0	0	1	6	7	.857	.857	.821
Marginal Totals		10	0	1	13	6	30			

Category Marginal Agreement: .736

Cohen's Kappa: .902

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Table 80

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 90  
School 801    Grade 2  
Week 0    Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	0	0	0	0	1	1	0.000	0.000	0.000
Pair	2	0	0	0	0	0	0	-----	-----	-----
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	51	1	52	.981	.981	.654
None of the above	5	0	0	0	0	1	1	1.000	.333	1.000
Marginal Totals		0	0	0	51	3	54			

Category Marginal Agreement: .438

Cohen's Kappa: .586

Table 81

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

130

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	0	0	0	0	1	1	0.000	1.000	-.019
Pair	2	0	0	0	0	0	0	-----	-----	-----
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	1	0	0	49	2	52	.942	.962	.221
None of the above	5	0	0	0	1	0	1	0.000	.333	-.059
Marginal Totals		1	0	0	50	3	54			

Category Marginal Agreement: .765

Cohen's Kappa: .135

174

173

Table 82

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 30    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

Category chosen by Expert 80	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
	Cat. #	1	2	3	4					5
Individual	1	39	1	0	0	1	41	.951	.953	.761
Pair	2	3	2	0	0	1	6	.333	.500	.294
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	0	2	2	0.000	.500	.019
None of the above	5	1	0	0	1	3	5	.600	.714	.540
Marginal Totals		43	3	0	1	7	54			

Category Marginal Agreement: .667

Cohen's Kappa: .508

Table 83

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

132

Reliability on Grouping  
Observer 40 Expert 80  
School 801, Grade 2  
Week 0, Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	40	1	0	0	0	41	.976	1.000	.899
Pair	2	1	5	0	0	0	6	.833	1.000	.813
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	2	0	2	1.000	1.000	1.000
None of the above	5	0	0	0	0	5	5	1.000	1.000	1.000
Marginal Totals		41	6	0	2	5	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: .908

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Table 84

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
DMF

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	30	0	0	1	0	31	.968	.968	.948
Pair	2	0	1	0	0	0	1	1.000	1.000	1.000
Small Group (3-8)	3	0	0	4	0	0	4	1.000	1.000	1.000
Large Group (>8)	4	0	0	0	32	5	37	.865	.946	.755
None of the above	5	0	0	0	2	3	5	.600	.625	.554
Marginal Totals		30	1	4	35	8	78			

Category Marginal Agreement: .908

Cohen's Kappa: .836

Table 85

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

134

Reliability on Grouping  
Observer 20      Expert 80  
School 801      Grade 2  
Week 0          Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	30	1	0	0	0	31	.968	1.000	.946
Pair	2	1	0	0	0	0	1	0.000	1.000	.013
Small Group (3-8)	3	0	0	4	0	0	4	1.000	1.000	1.000
Large Group (>8)	4	0	0	0	35	2	37	.946	.974	.895
None of the above	5	0	0	0	3	2	5	.400	.800	.368
Marginal Totals		31	1	4	38	4	78			

Category Marginal Agreement: .955

Cohen's Kappa: .852

132

Table 86

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability of Grouping  
Observer 30 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	40	1	0	0	0	41	.976	.651	.902
Pair	2	16	7	0	0	0	23	.304	.435	.210
Small Group (3-8)	3	7	2	0	0	0	9	0.000	0.000	0.000
Large Group (>8)	4	0	0	0	0	3	3	0.000	0.000	0.000
None of the above	5	0	0	0	0	8	8	1.000	.727	1.000
Marginal Totals		63	10	0	0	11	84			

Category Marginal Agreement: .363

Cohen's Kappa: .414

Table 88

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

136

Reliability on Grouping  
Observer 40    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	40	0	1	0	0	41	.976	.661	.907
Pair	2	15	8	0	0	0	23	.348	.391	.270
Small Group (3-8)	3	7	1	1	0	0	9	.111	.222	.089
Large Group (>8)	4	0	0	0	2	1	3	.667	.667	.659
None of the above	5	0	0	0	0	8	8	1.000	.189	1.000
Marginal Totals		62	9	2	2	9	84			

Category Marginal Agreement: .566

Cohen's Kappa: .501

136

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Table 87

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	39	0	0	39	1.000	.929	1.000
Not used	2	3	12	0	15	.800	.800	.743
Other	3	0	0	0	0	-----	-----	-----
Marginal Totals		42	12	0	54			

Category Marginal Agreement: .864

Cohen's Kappa: .852

Table 89

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

138

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	37	1	1	39	.949	.867	.692
Not used	2	8	5	2	15	.333	.400	.250
Other	3	0	0	0	0	-----	0.000	-----
Marginal Totals		45	6	3	54			

Category Marginal Agreement: .422

Cohen's Kappa: .395

139

130

Table 90

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 2  
Week 0    Day 4  
WDRSD

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	46	2	1	49	.939	.980	.633
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	4	0	7	11	.636	.727	.580
Marginal Totals		50	2	8	60			

Category Marginal Agreement: .569

Cohen's Kappa: .605

Table 91

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

140

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals,	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	47	1	1	49	.959	.980	.755
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	3	0	8	11	.727	.818	.679
Marginal Totals		50	1	9	60			

Category Marginal Agreement: .599

Cohen's Kappa: .715

193

194

Table 92

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	57	2	2	61	.934	.967	.780
Not used	2	2	2	0	4	.500	.667	.462
Other	3	0	2	17	19	.895	1.000	.864
Marginal Totals		59	6	19	84			

Category Marginal Agreement: .878

Cohen's Kappa: .781

Table 93

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

142

Reliability on Materials  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa'
		1	2	3				
Used	1	59	1	1	61	.967	1.000	.880
Not used	2	1	3	0	4	.750	1.000	.737
Other	3	1	0	18	19	.947	1.000	.932
Marginal Totals		61	4	19	84			

Category Marginal Agreement: 1.000

Cohen's Kappa: .886

193

197

Table 94

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30 : Expert 90  
School 801 Grade 5  
Week 0 Day 4  
DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	54	0	1	55	.982	.902	.917
Not used	2	5	7	3	15	.467	.667	.388
Other	3	2	3	3	8	.375	.875	.313
Marginal Totals		61	10	7	78			

Category Marginal Agreement: .814

Cohen's Kappa: .567

Table 95

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 90  
School 801    Grade 5  
Week 0        Day 4  
DMP

144

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	55	0	0	55	1.000	.902	1.000
Not used	2	5	10	0	15	.667	.667	.618
Other	3	1	0	7	8	.875	.875	.863
Marginal Totals		61	10	7	78			

Category Marginal Agreement: .814

Cohen's Kappa: .815

202



Table 96

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 5,  
Week 0    Day 5  
DMP

Materials: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	25	0	2	27	.926	.926	.556
Not used	2	0	0	0	0	-----	-----	-----
Other	3	0	0	3	3	1.000	.600	1.000
Marginal Totals		25	0	5	30			

Category Marginal Agreement: .763

Cohen's Kappa: .714

Table 97

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20 Expert 90  
 School 801 Grade 5  
 Week 0 Day 5  
 DMP

146

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	27	0	0	27	1.000	1.000	1.000
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	0	1	2	3	.667	.667	.643
Marginal Totals		27	1	2	30			

Category Marginal Agreement: .556

Cohen's Kappa: .818

206

205

Table 98

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	19	4	0	23	.826	.826	.526
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	0	0	7	7	1.000	1.000	1.000
Marginal Totals		19	4	7	30			

Category Marginal Agreement: .609

Cohen's Kappa: .710

Table 99

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

148

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 5  
Week 0 Day 5,  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	23	0	0	23	1.000	.958	1.000
Not used	2	0	0	0	0	-----	-----	-----
Other	3	1	0	6	7	.857	.857	.821
Marginal Totals		24	0	6	30			

Category Marginal Agreement: .908

Cohen's Kappa: .902

210

200

Table 100

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 2  
Week 0    Day 5  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	6	0	6	0.000	0.000	0.000
Not used	2	0	45	2	47	.957	.922	.234
Other	3	0	0	1	1	1.000	.333	1.000
Marginal Totals		0	51	3	54			

Category Marginal Agreement: .418

Cohen's Kappa: .163

212

149

Table 101

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

150

Reliability on Materials  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	6	0	6	0.000	0.000	0.000
Not used	2	0	44	3	47	.936	.922	-.149
Other	3	0	1	0	1	0.000	.333	-.059
Marginal Totals		0	51	3	54			

Category Marginal Agreement: .418

Cohen's Kappa: -.047

214

213

Table 102

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	41	3	3	47	.872	.936	.311
Not used	2	1	1	0	2	.500	.500	.460
Other	3	2	0	3	5	.600	.833	.550
Marginal Totals		44	4	6	54			

Category Marginal Agreement: .757

Cohen's Kappa: .400

Table 103

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0    Day 5  
- WDRSD

152

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	47	0	0	47	1.000	.959	1.000
Not used	2	2	0	0	2	0.000	0.000	0.000
Other	3	0	0	5	5	1.000	1.000	1.000
(Marginal Totals		49	0	5	54			

Category Marginal Agreement: .653

Cohen's Kappa: .816



Table 104

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	44	1	0	45	.978	1.000	.947
Not used	2	0	23	5	28	.821	.893	.737
Other	3	1	1	3	5	.600	.625	.554
Marginal Totals		45	25	8	78			

Category Marginal Agreement: .839

Cohen's Kappa: .812

Table 105

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
DMP

154

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	42	3	0	45	.933	.978	.838
Not used	2	1	25	2	28	.893	1.000	.833
Other	3	3	0	2	5	.400	.800	.368
Marginal Totals		46	28	4	78			

Category Marginal Agreement: .926

Cohen's Kappa: .781

221

222

Table 10b

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 90.	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	73	0	0	73	1.000	1.000	1.000
Not used	2	0	0	3	3	0.000	0.000	0.000
Other	3	0	0	8	8	1.000	.727	1.000
Marginal Totals		73	0	11	84			

Category Marginal Agreement: .576

Cohen's Kappa: .846

Table 107

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

156

Reliability on Materials  
 Observer 40 Expert 90  
 School 801 Grade 2  
 Week 0 Day 5  
 DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	73	0	0	73	1.000	1.000	1.000
Not used	2	0	2	1	3	.667	.667	.659
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		73	2	9	84			

Category Marginal Agreement: .852

Cohen's Kappa: .949

226

225

Table 108

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
DMP

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	8	1	0	9	.889	1.000	.876
Not used	2	1	53	2	56	.946	1.000	.839
Other	3	0	2	17	19	.895	1.000	.864
Marginal Totals		9	56	19	84			

Category Marginal Agreement: 1.000

Cohen's Kappa: .855

Table 109

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
DMP

158

Material Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	6	3	0	9	.667	.667	.641
Not used	2	0	55	1	56	.982	.949	.940
Other	3	0	1	18	19	.947	1.000	.932
Marginal Totals		6	59	19	84			

Category Marginal Agreement: .872

Cohen's Kappa: .874

230

229

Table 110

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 90  
School 801    Grade 2  
Week 0        Day 4  
DMP

Material: Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	20	3	0	23	.870	.767	.788
Not used	2	10	33	4	47	.702	.872	.372
Other	3	0	5	3	8	.375	.875	.313
Marginal Totals		30	41	7	78			

Category Marginal Agreement: .838

Cohen's Kappa: .497

Table 111  
 Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 40    Expert 90  
 School 801    Grade 2  
 Week 0        Day 4  
 DMP

Material: Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	21	2	0	23	.913	.561	.817
Not used	2	20	27	0	47	.574	.638	.309
Other	3	0	1	7	8	.875	.875	.863
Marginal Totals		41	30	7	78			

Category Marginal Agreement: .691

234

Cohen's Kappa: .512

233



Table 112

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 5  
Week 0        Day 5  
DMP

Material Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	9	4	1	14	.643	.643	.490
Not used	2	0	12	1	13	.923	.813	.835
Other	3	0	0	3	3	1.000	.600	1.000
Marginal Totals		9	16	5	30			

Category Marginal Agreement: .685

Cohen's Kappa: .673

Table 113

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

162

Reliability on Materials  
 Observer 20 Expert 90  
 School 801 Grade 5  
 Week 0 Day 5  
 DMP

Material: Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	13	1	0	14	.929	.929	.874
Not used	2	0	13	0	13	1.000	.867	1.000
Other	3	0	1	2	3	.667	.667	.643
Marginal Totals		13	15	2	30			

237

Category Marginal Agreement: .821

238

Cohen's Kappa: .884

Table 114

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20 Expert 90  
 School 801 Grade 2  
 Week 0 Day 5  
 WDRSD

Materials Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	50	0	3	53	0.000	0.000	0.000
Other	3	1	0	0	1	0.000	.333	-.059
Marginal Totals		51	0	3	54			

Category Marginal Agreement: .111

Cohen's Kappa: -.001

Table 115

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

164

Reliability on Materials  
Observer 10 , Expert 80  
School 801 Grade 2  
Week 0 Day 5  
DMP

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	20	3	0	23	.870	.920	.808
Not used	2	5	40	5	50	.800	.900	.527
Other	3	0	2	3	5	.600	.625	.554
Marginal Totals		25	45	8	78			

241

category Marginal Agreement: .815

242

Cohen's Kappa: .637

Table 116

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20      Expert 80  
School 801      Grade 2  
Week 0          Day 5  
DMP

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category: chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	22	1	0	23	.957	.821	.932
Not used	2	6	42	2	50	.840	.920	.610
Other	3	0	3	2	5	.400	.800	.368
Marginal Totals		28	46	4	78			

Category Marginal Agreement: .847

Cohen's Kappa: .700

Table 117

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
DMP

166

Materials: Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	41	8	0	49	.837	.878	.666
Not used	2	2	22	3	27	.815	.900	.712
Other	3	0	0	8	8	1.000	.727	1.000
Marginal Totals		43	30	11	84			

Category Marginal Agreement: .835

Cohen's Kappa: .730

246

245

Table 118

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 90  
School #01 Grade 2  
Week 0 Day 5  
DMP

Material Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	41	8	0	49	.837	.898	.657
Not used	2	3	23	1	27	.852	.871	.765
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		44	31	9	84			

Category Marginal Agreement: .886

Cohen's Kappa: .747

Table 119

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 601    Grade 2  
Week 0        Day 5  
WORDSD

168

Material: Game

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	51	0	2	53	.962	.962	.321
Not used	2	0	0	0	0	-----	-----	-----
Other	3	0	0	1	1	1.000	.333	1.000
Marginal Totals		51	0	3	54			

category Marginal Agreement: .648

Cohen's Kappa: .486

250

249



Table 120

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

Material: Game

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	50	3	53	0.000	0.000	0.000
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	0	1	0	1	0.000	.333	-.059
Marginal Totals		0	51	3	54			

Category Marginal Agreement: .111

Cohen's Kappa: -.001

Table 121

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

170

Reliability on Materials  
Observer 30    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
DMP

Material: Game

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	3	3	0.000	0.000	0.000
Not used	2	0	73	0	73	1.000	1.000	1.000
Other	3	0	0	8	8	1.000	.727	1.000
Marginal Totals		0	73	11	84			

Category Marginal Agreement: .576

Cohen's Kappa: .846

254

253

Table 122

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 40 Expert 90  
 School 801 Grade 2  
 Week 0 Day 5  
 DMP

Material Game

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	2	1	3	0.000	0.000	0.000
Not used	2	0	73	0	73	1.000	.973	1.000
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		0	75	9	84			

Category Marginal Agreement: .621

Cohen's Kappa: .833

Table 123

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
DMP

172

Material: Audio/visual aid

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	72	3	75	.960	.973	.695
Other	3	0	0	8	8	1.000	.727	1.000
Marginal Totals		0	73	11	84			

Category Marginal Agreement: .567

Cohen's Kappa: .775

253

257

Table 124

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 90  
School 801    Grade 2  
Week 0        Day 5  
DMP

Material: Audio/visual aid

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	74	1	75	.987	1.000	.876
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		0	75	9	84			

Category Marginal Agreement: .630

Cohen's Kappa: .876

Table 125

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 2  
Week 0        Day 4  
WDRSD

174

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	21	4	0	25	.840	.920	.721
Not used	2	2	27	0	29	.931	.935	.838
Other	3	0	0	0	0	-----	-----	-----
Marginal Totals		23	31	0	54			

Category Marginal Agreement: .928

Cohen's Kappa: .775

290

Table 126 ,

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0        Day 4  
WORSO

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	16	6	1	25	.640	.880	.392
Not used	2	6	21	2	29	.724	1.000	.404
Other	3	0	0	0	0	-----	0.000	-----
Marginal Totals		22	29	3	54			

Category Marginal Agreement: .627

Cohen's Kappa: .398

Table 127

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 30 Expert 80  
 School 801 Grade 2  
 Week 0 Day 4  
 WDRSD

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	4	44	1	49	.898	.980	.490
Other	3	0	4	7	11	.636	.727	.580
Marginal Totals		4	48	8	60			

Category Marginal Agreement: .569

Cohen's Kappa: .534

285

286



Table 128

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0        Day 4  
WQRSD

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	12	36	1	49	.735	.796	.242
Other	3	0	3	8	11	.727	.818	.679
Marginal Totals		12	39	9	60			

Category Marginal Agreement: .538

Cohen's Kappa: .396

Table 129

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

178

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	1	62	2	65	.954	.985	.806
Other	3	0	2	17	19	.895	1.000	.864
Marginal Totals		1	64	19	84			

270

category Marginal Agreement: .662

Cohen's Kappa: .834

259

Table 130

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 5  
Week 0        Day 5  
DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	3	22	2	27	.815	.815	.306
Other	3	0	0	3	3	1.000	.600	1.000
Marginal Totals		3	22	5	30			

Category Marginal Agreement: .472

Cohen's Kappa: .485

Table 131

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 5  
Week 0        Day 5  
DMP

180

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of, Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	1	26	0	27	.963	1.000	.630
Other	3	0	1	2	3	.667	.667	.643
Marginal Totals		1	27	2	30			

Category Marginal Agreement: .556

Cohen's Kappa: .636

274

273

Table 132

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 5  
Week 0    Day 5  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Licht's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	8	15	0	23	.652	.652	.304
Other	3	0	0	7	7	1.000	1.000	1.000
Marginal Totals		8	15	7	30			

Category Marginal Agreement: .551

Cohen's Kappa: .526

Table 133

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 5  
Week 0        Day 5  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0,000	-----
Not used	2	3	20	0	23	.870	.913	.565
Other	3	0	1	6	7	.857	.857	.821
Marginal Totals		3	21	6	30			

Category Marginal Agreement: .590

Cohen's Kappa: .680

273

Table 134

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

103

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	50	0	3	53	0.000	0.000	0.000
Other	3	1	0	0	1	0.000	.333	-.059
Marginal Totals		51	0	3	54			

Category Marginal Agreement: .111

Cohen's Kappa: -.001

29.0

07.0

Table 135

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

104

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 2  
Week 0    Day 5  
WDRSD

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	16	4	0	20	.800	.850	.708
Not used	2	1	25	3	29	.862	.935	.676
Other	3	0	2	3	5	.600	.833	.550
Marginal Totals		17	31	6	54			

Category Marginal Agreement: .873

Cohen's Kappa: .672



Table 136

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
WDRSD

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	20	0	0	20	1.000	.952	1.000
Not used	2	1	28	0	29	.966	.966	.928
Other	3	0	0	5	5	1.000	1.000	1.000
Marginal Totals		21	28	5	54			

Category Marginal Agreement: .973

Cohen's Kappa: .967

Table 137

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10, Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	3	4	2	1	0	1	0	11	.273	.545	.182
Engaged - oral	2	0	0	2	0	0	0	0	2	0.000	.286	.149
Engaged - covert	3	3	2	6	1	1	2	0	15	.400	.682	.124
Not engaged - interim	4	0	0	0	4	1	1	0	6	.567	.657	.617
Not engaged - waiting	5	0	1	6	1	3	1	0	12	.250	.800	.156
Not engaged -off task	6	0	0	1	0	1	6	0	8	.750	.727	.686
None of the above	7	0	0	0	0	0	0	0	0	-----	-----	-----
Marginal Totals		6	7	17	7	6	11	0	54			

Category Marginal Agreement: .633

Cohen's Kappa: .274

2.55

Table 138

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20    Expert 90  
School 801    Grade 2  
Week 0    Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	7	2	2	0	0	0	0	11	.626	1.000	.543
Engaged - oral	2	0	1	1	0	0	0	0	2	.500	.333	.437
Engaged - covert	3	2	1	10	0	0	1	1	15	.667	.833	.500
Not engaged - interim	4	1	0	0	3	1	1	0	6	.500	.833	.449
Not engaged - waiting	5	0	2	4	1	0	3	2	12	0.000	.083	-.019
Not engaged - off task	6	1	0	1	1	0	5	0	8	.625	.800	.540
None of the above	7	0	0	0	0	0	0	0	0	-----	0.000	-----
Marginal Totals		11	6	18	5	1	10	3	54			

Category Marginal Agreement: .555

Cohen's Kappa: .368

Table 139

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	1	0	0	0	0	9	.889	1.000	.869
Engaged - oral	2	0	2	0	0	0	0	0	2	1.000	.333	1.000
Engaged - covert	3	1	3	14	1	0	2	0	21	.667	.810	.535
Not engaged - interim	4	0	0	0	1	1	0	0	2	.500	.500	.464
Not engaged - waiting	5	0	0	0	0	5	1	0	6	.033	.857	.811
Not engaged - off task	6	0	1	0	1	0	6	1	9	.667	1.000	.608
None of the above	7	0	0	2	1	1	0	7	11	.636	.727	.580
Marginal Totals		9	6	17	4	7	9	8	60			

Category Marginal Agreement: .747

Cohen's Kappa: .652

287

Table 140

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1976

Reliability on Learner Moves  
Observer 40    Expert 80  
School 801    Grade 2  
Week .0    Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	1	0	0	0	0	9	.889	.900	.867
Engaged - oral	2	0	1	1	0	0	0	0	2	.500	.500	.464
Engaged - covert	3	1	3	17	0	0	0	0	21	.810	.913	.691
Not engaged - interim	4	0	0	1	1	0	0	0	2	.500	.500	.492
Not engaged - waiting	5	0	0	0	0	4	2	0	6	.667	.833	.636
Not engaged - off task	6	0	0	1	0	1	6	1	9	.667	.889	.618
None of the above	7	1	0	2	0	0	0	8	11	.727	.818	.679
Marginal Totals		10	4	23	1	5	8	9	60			

Category Marginal Agreement: .765

Cohen's Kappa: .680

Table 141

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1979

Reliability on Learner Moves  
Observer-10 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	3	0	5	1	1	0	0	10	.300	.500	.256
Engaged - oral	2	1	1	1	0	0	0	0	3	.333	.375	.263
Engaged - covert	3	0	5	17	1	6	1	0	30	.567	.823	.383
Not engaged - interim	4	0	1	0	1	0	1	0	3	.333	1.000	.309
Not engaged - waiting	5	0	0	2	0	9	1	0	12	.750	.667	.682
Not engaged - off task	6	1	1	0	0	1	2	2	7	.286	.657	.231
None of the above	7	0	0	0	0	1	1	17	19	.895	1.000	.864
Marginal Totals		5	6	25	3	18	6	19	84			

Category Marginal Agreement: .747

Cohen's Kappa: .490

233

Table 142

Phase IV - 107 ...  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	9	0	0	0	1	0	0	10	.900	.588	.875
Engaged - oral	2	1	1	0	0	1	0	0	3	.333	.429	.273
Engaged - covert	3	3	6	14	1	1	5	0	30	.467	.500	.351
Not engaged - interim	4	0	0	0	2	0	1	0	3	.667	.600	.646
Not engaged - waiting	5	3	0	1	1	4	3	0	12	.333	.583	.273
Not engaged - off task	6	1	0	0	0	0	5	1	7	.714	.500	.657
None of the above	7	0	0	0	1	0	0	18	19	.947	1.000	.932
Marginal Totals		17	7	15	5	7	14	19	84			

Category Marginal Agreement: .600

Cohen's Kappa: .555

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Table 143

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	10	0	2	0	0	1	1	14	.714	.875	.641
Engaged - oral	2	0	2	1	0	0	0	0	3	.667	.375	.629
Engaged - covert	3	5	3	16	0	0	1	0	25	.640	.962	.460
Not engaged - interim	4	0	1	1	10	0	0	0	12	.833	.750	.790
Not engaged - waiting	5	0	0	3	0	1	1	2	7	.143	.143	.132
Not engaged - off task	6	1	1	3	2	0	1	1	9	.111	.444	.063
None of the above	7	0	1	0	4	0	0	3	8	.375	.875	.313
Marginal Totals		16	8	26	16	1	4	7	78			

Category Marginal Agreement: .632

Cohen's Kappa: .442

291



Table 144

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 2000

Reliability on Learner Moves

Observer 40 Expert 90

School 801 Grade 2

Week 0 Day 4

DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	12	0	2	0	0	0	0	14	.857	.824	.817
Engaged - oral	2	0	2	1	0	0	0	0	3	.667	.500	.639
Engaged - covert	3	4	1	19	1	0	0	0	25	.760	.862	.618
Not engaged - interim	4	1	1	1	9	0	0	0	12	.750	1.000	.705
Not engaged - waiting	5	0	0	3	1	2	1	0	7	.286	.286	.267
Not engaged - off task	6	0	1	3	1	0	4	0	9	.444	.556	.406
None of the above	7	0	1	0	0	0	0	7	8	.875	.875	.863
Marginal Totals		17	6	29	12	2	5	7	78			

category Marginal Agreement) .700

Cohen's Kappa) .630

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Table 145

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

## Reliability on Learner Moves

Observer 10 Expert 90

School 801 Grade 4

Week 0 Day 5

DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	3	0	5	1	0	1	1	11	.273	.636	.051
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	3	1	4	0	0	0	1	9	.444	1.000	.206
Not engaged - interim	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - waiting	5	0	0	0	0	2	0	0	2	1.000	1.000	1.000
Not engaged - off task	6	1	0	0	0	0	4	0	5	.800	1.000	.760
None of the above	7	0	0	0	0	0	0	3	3	1.000	.600	1.000
Marginal Totals		7	1	9	1	2	5	5	30			

Category Marginal Agreement: .605

Cohen's Kappa: .398

293

Table 146

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20    Expert 90  
School 801    Grade 5  
Week 3        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	9	0	2	0	0	0	0	11	.818	.647	.580
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	6	1	1	0	1	0	0	9	.111	.444	-.026
Not engaged - interim	4	0	0	0	0	0	0	0	0	-----	-----	-----
Not engaged - waiting	5	0	0	0	0	2	0	0	2	1.000	.500	1.000
Not engaged - off task	6	2	0	1	0	0	2	0	5	.400	.400	.357
None of the above	7	0	0	0	0	1	0	2	3	.667	.667	.643
Marginal Totals		17	1	4	0	4	2	2	30			

Category Marginal Agreement: .443

Cohen's Kappa: .357

Table 147

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DHP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	5	0	2	0	0	0	0	7	.714	.857	.643
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	-----	-----
Engaged - covert	3	1	0	4	0	0	1	0	6	.667	.857	.565
Not engaged - interim	4	0	0	0	1	1	0	0	2	.500	.500	.483
Not engaged - waiting	5	0	0	1	0	5	1	0	7	.714	.857	.643
Not engaged - off task	6	0	0	0	0	0	1	0	1	1.000	.333	1.000
None of the above	7	0	0	0	0	0	0	7	7	1.000	1.000	1.000
Marginal Totals		6	0	7	1	6	3	7	30			

Category Marginal Agreement: .734

Cohen's Kappa: .708

Table 148

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	6	0	0	0	1	0	0	7	.857	1.000	.814
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	1	0	5	0	0	0	0	6	.833	1.000	.792
Not engaged - interim	4	0	1	0	1	0	0	0	2	.500	.500	.483
Not engaged - waiting	5	0	0	1	0	6	0	0	7	.857	1.000	.814
Not engaged - off task	6	0	0	0	0	0	1	0	1	1.000	.500	1.000
None of the above	7	0	0	0	0	0	1	6	7	.857	.857	.821
Marginal Totals		7	1	6	1	7	2	6	30			

Category Marginal Agreement: .696

Cohen's Kappa: .792

Table 149

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

198

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	0	0	0	0	0	0	0	0	-----	-----	-----
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	0	0	11	0	1	0	1	13	.846	.765	.775
Not engaged - interim	4	0	0	1	6	1	0	0	8	.750	.075	.713
Not engaged - waiting	5	0	1	5	1	21	1	1	30	.700	.800	.460
Not engaged - off task	6	0	0	0	0	1	1	0	2	.500	1.000	.401
None of the above	7	0	0	0	0	0	0	1	1	1.000	.333	1.000
Marginal Totals		0	1	17	7	24	2	3	54			

Category Marginal Agreement: .629

Cohen's Kappa: .608

Table 150

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1976

Reliability on Learner Moves  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	0	1	8	0	3	0	1	13	.615	.923	.505
Not engaged - interim	4	1	0	6	5	2	0	0	8	.625	.875	.569
Not engaged - waiting	5	1	0	4	1	21	1	2	30	.700	.900	.400
Not engaged - off task	6	0	0	0	0	1	1	0	2	.500	1.000	.481
None of the above	7	0	0	0	1	0	0	0	1	0.000	.333	.059
Marginal Totals		2	1	12	7	27	2	3	54			

Category Marginal Agreement: .576

Cohen's Kappa: .456

Table 151

Phase IV - IGE Evaluation Project  
-Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	9	1	1	0	1	0	0	12	.750	.800	.654
Engaged - oral	2	1	1	2	0	0	0	0	4	.250	.500	.221
Engaged - covert	3	2	0	6	0	2	3	1	14	.429	.857	.265
Not engaged - interim	4	1	0	0	0	0	0	1	2	0.000	.500	-.080
Not engaged - waiting	5	0	0	0	1	2	0	2	5	.400	1.000	.339
Not engaged - off task	6	2	0	2	2	0	6	0	12	.500	.750	.400
None of the above	7	0	0	1	1	0	0	3	5	.600	.714	.540
Marginal Totals		15	2	12	4	5	9	7	54			

Category Marginal Agreement: .732

Cohen's Kappa: .388



Table 152

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	10	0	2	0	0	0	0	12	.833	.750	.763
Engaged - oral	2	0	3	1	0	0	0	0	4	.750	1.000	.730
Engaged - covert	3	3	1	7	3	0	0	0	14	.500	1.000	.325
Not engaged - interim	4	0	0	0	2	0	0	0	2	1.000	.286	1.000
Not engaged - waiting	5	0	0	0	1	4	0	0	5	.800	.800	.784
Not engaged - off task	6	3	0	4	1	0	4	0	12	.333	.333	.280
None of the above	7	0	0	0	0	0	0	5	5	1.000	1.000	1.000
Marginal Totals		16	4	14	7	4	4	5	54			

Category Marginal Agreement: .738

Cohen's Kappa: .573

Table 153

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	4	0	0	1	0	0	0	5	.800	.625	.777
Engaged - oral	2	0	3	0	0	0	0	0	3	1.000	.500	1.000
Engaged - covert	3	3	2	24	10	4	1	2	46	.522	.587	.269
Not engaged - interim	4	0	1	0	2	1	0	0	4	.500	.286	.391
Not engaged - waiting	5	0	0	2	0	6	0	3	11	.545	1.000	.471
Not engaged - off task	6	0	0	1	0	0	3	0	4	.750	1.000	.736
None of the above	7	1	0	0	1	0	0	3	5	.800	.625	.854
Marginal Totals		8	6	27	14	11	4	8	78			

Category Marginal Agreement: .660

Cohen's Kappa: .434

301

Table 154

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	2	0	2	1	0	0	0	5	.400	.800	.368
Engaged - oral	2	0	3	0	0	0	0	0	3	1.000	.429	1.000
Engaged - covert	3	2	2	38	0	2	1	1	46	.826	.958	.548
Not engaged - interim	4	0	1	2	1	0	0	0	4	.250	.500	.230
Not engaged - waiting	5	0	1	3	0	6	0	1	11	.545	.909	.479
Not engaged - off task	6	0	0	1	0	1	2	0	4	.500	.750	.480
None of the above	7	0	0	2	0	1	0	2	5	.400	.800	.368
Marginal Totals		4	7	48	2	10	3	4	78			

Category Marginal Agreement: .735

Cohen's Kappa: .492

Table 155

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	7	1	0	0	0	0	0	8	.875	.471	.843
Engaged - oral	2	0	1	2	0	1	1	0	5	.200	.714	.127
Engaged - covert	3	5	4	10	0	2	1	0	22	.455	.727	.326
Not engaged - interim	4	3	0	1	7	0	1	0	12	.583	.667	.539
Not engaged - waiting	5	0	0	1	0	3	1	2	7	.429	1.000	.377
Not engaged - off task	6	2	0	2	1	0	13	1	19	.7684	.947	.598
None of the above	7	0	1	0	0	1	1	8	11	.727	1.000	.686
Marginal Totals		17	7	16	8	7	18	11	84			

Category Marginal Agreement: .789

Cohen's Kappa: .504

303

Table 156

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer A O Expert 90  
School A01 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	0	0	0	0	0	8	1.000	.533	1.000
Engaged - oral	2	0	2	2	0	0	1	0	5	.400	.714	.345
Engaged - covert	3	5	3	12	0	0	2	0	22	.545	.864	.413
Not engaged - interim	4	1	0	2	7	0	2	0	12	.583	.583	.545
Not engaged - waiting	5	0	1	2	0	2	1	1	7	.286	.286	.268
Not engaged - off task	6	1	0	0	0	0	18	0	19	.947	.760	.925
None of the above	7	0	1	1	0	0	1	8	11	.727	.818	.695
Marginal Totals		15	7	19	7	2	25	9	84			

Category Marginal Agreement: .651

Cohen's Kappa: .610

Table 157

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 05-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	1	0	0	11	2	0,000	.667	-.059
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	1	2	.500	.500	.460
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	1	0	0	0	0	0	0	4	0	0	0	5	.800	.455	.749
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	2	1	3	3	0	0	0	6	0	0	30	45	.667	.711	.102
Marginal Totals		5	1	4	3	0	0	0	11	0	0	32	54			

Category Marginal Agreement: .369

Cohen's Kappa: .271

305

306

Table 158

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP93  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	1	0	0	0	0	0	1	0	0	0	2	0.000	.500	.080
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	1	2	.500	1.000	.481
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	1	0	0	0	0	0	0	3	0	0	1	5	.600	.800	.568
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	3	0	1	0	0	0	0	0	0	0	41	45	.911	.956	.564
Marginal Totals		4	1	2	0	0	0	0	4	0	0	43	54			

Category Marginal Agreement: .651

Cohen's Kappa: .488

Table 159

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELO1

Reliability on Interactions  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
HDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Student	3	0	0	3	0	0	0	0	0	0	0	0	0	3	1.000	.750	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	1	0	0	0	0	1	1	0.000	0.000	0.000
Other Adult to Target	6	0	1	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Group	8	0	0	0	0	0	0	0	8	0	0	3	11	11	.727	.727	.685
Other Adult to Group	9	0	1	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	1	0	0	0	0	0	0	0	42	43	43	.977	.956	.907
Marginal Totals		0	2	4	0	0	0	1	8	0	0	45	60	60			

399

310

Category Marginal Agreement: .304

Cohen's Kappa: .732



Table 160

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Date Filed: RELD1

Reliability of Interactions  
Observer: 40 Expert: 80  
School: 801 Grade: 2  
Week: 0 Day: 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	2	0	0	0	0	3	.333	.600	.273	
Target to Tch'r & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Target	5	0	0	0	0	1	0	0	0	0	0	0	1	1.000	1.000	1.000	
Other Adult to Target	6	0	0	0	0	0	1	0	0	0	0	0	1	1.000	.500	1.000	
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----	
Teacher to Group	8	0	0	0	0	0	0	0	10	0	0	1	11	.909	.917	.886	
Other Adult to Group	9	0	0	0	0	0	1	10	0	0	0	0	1	0.000	0.000	0.000	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	4	0	0	0	0	2	0	0	37	43	.860	.884	.619	
Marginal Totals		0	0	5	0	1	2	2	12	0	0	38	60				

311

Category Marginal Agreement: .557  
Cohen's Kappa: .670

312

604

Table 161

Phase IV - IAF Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer: Expert 80  
School: 801 Grade 2  
Week: 0 Day 4

DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0.000	.500	-.024
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	0	1	1.000	.167	1.000	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Target	5	0	0	0	0	0	1	0	1	0	0	0	2	0.000	.667	-.037	
Other Adult to Target	6	1	0	0	0	1	1	0	2	0	0	1	6	.167	.333	.146	
Student to Target	7	0	0	1	0	0	0	1	0	0	0	0	2	.500	.667	.481	
Teacher to Group	8	0	0	0	0	0	0	0	4	0	0	4	8	.500	.500	.382	
Other Adult to Group	9	1	0	0	0	0	0	0	5	0	0	2	8	0.000	0.000	0.000	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	0	0	1	0	2	4	0	0	45	56	.804	.929	.484	
Marginal Totals		2	0	6	0	3	2	3	16	0	0	52	84				

314

313

Category Marginal Agreement: .470

Cohen's Kappa: .325

Table 162

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 80  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	1	1	0.000	.200	.063
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	0	1	1.000	.500	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	1	0	0	0	0	0	0	0	0	0	1	2	0.000	0.000	0.000
Other Adult to Target	6	3	0	0	0	0	0	0	0	0	0	3	6	0.000	0.000	0.000
Student to Target	7	0	0	1	0	0	0	0	0	0	0	1	2	0.000	0.000	0.000
Teacher to Group	8	0	0	0	0	0	0	0	4	0	0	4	8	.500	.800	.432
Other Adult to Group	9	1	0	0	0	0	0	0	3	0	0	4	8	0.000	0.000	0.000
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	0	0	0	0	0	3	0	0	53	56	.946	.836	.735
Marginal Totals		5	0	2	0	0	0	0	10	0	0	67	84			

Category Marginal Agreement: .292

Cohen's Kappa: .321

Table 163

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELO1

Reliability on Interactions  
Observer 30 Expert 90  
School 801 Grade  
Week 0 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	
Target to Student	3	0	0	3	1	0	0	0	0	0	0	2	6	.500	1,000	.458	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0,000	-----	
Teacher to Target	5	0	0	0	0	1	0	0	1	0	0	0	2	.500	.500	.494	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-----		
Student to Target	7	0	0	2	0	0	0	0	0	0	0	0	2	0,000	0,000	0,000	
Teacher to Group	8	1	0	0	0	0	0	0	8	0	0	4	13	.615	.923	.545	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----			
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----			
None of the above	11	1	0	1	1	0	0	0	3	0	0	49	55	.891	1,000	.630	
Marginal Totals		2	0	6	2	1	0	0	12	0	0	55	78				

317

313

Category Marginal Agreement: .489  
Cohen's Kappa: .537

Table 164

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 40 Expert 90  
School 801 Grade 2  
Week 0 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	. Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000
Target to Student	3	0	0	4	0	0	0	1	0	0	0	1	6	.667	.833	.544	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	
Teacher to Target	5	0	0	0	0	1	0	0	1	0	0	0	2	.500	1.000	.487	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	
Student to Target	7	0	0	1	0	0	0	1	0	0	0	0	2	.500	1.000	.487	
Teacher to Group	8	0	0	0	0	1	0	0	10	0	0	2	13	.769	1.000	.723	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
None of the above	11	1	0	0	0	0	0	0	2	0	0	52	55	.945	1.000	.815	
Marginal Totals		1	0	5	0	2	0	2	13	0	0	55	78				

Category Marginal Agreement: .806

Cohen's Kappa: .727

Table 165

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: REL95  
Data File: RELD1

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 5  
Week 0 Day 5  
DHP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other, Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	1	1	0.000	.500	-.071	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	1	0	0	0	0	0	0	0	0	1	0.000	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
None of the above	11	0	0	1	0	0	0	0	0	0	0	25	26	.962	.929	.423	
Marginal Totals		0	0	2	0	0	0	0	0	0	0	28	30				

322

321

Category Marginal Agreement: .286

Cohen's Kappa: .118

Table 166

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	1	1	0.000	1.000	0.034	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Target	5	1	0	0	0	0	0	0	0	0	0	0	1	0.000	0.000	0.000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	1	0	0	0	0	0	0	0	0	1	0.000	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
None of the above	11	0	0	0	0	0	0	0	0	0	0	26	26	1.000	.929	1.000	
Marginal Totals		1	0	1	0	0	0	0	0	0	0	28	30				

Table 167

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: REL98  
Data File: RELO1

Reliability on Interactions  
Observer 30 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa		
		1	2	3	4	5	6	7	8	9	10	11						
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Student to Target	7	0	0	0	0	0	0	0	0	0	0	1	1	1	0,000	0,000	0,000	
Teacher to Group	8	0	0	0	0	0	0	0	2	0	0	1	3	3	,667	,667	,643	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,000	0	
None of the above	11	0	0	0	0	0	0	0	0	0	1	25	26	26	,962	,963	,615	
Marginal Totals		0	0	0	0	0	0	0	2	0	1	27	30	30				

Category Marginal Agreements: .407

Cohen's Kappa: .531



Table 168

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP93  
Data File: RELO1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 5  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	1	1	1	0,000	0,000	0,000
Teacher to Group	8	0	0	0	0	0	0	0	3	0	0	0	3	3	1,000	,600	1,000
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	1	1	0	0	0	2	0	0	22	26	26	,846	,885	,341
Marginal Totals		0	0	1	1	0	0	0	5	0	0	23	30	30			

Category Marginal Agreement: .297

Cohen's Kappa: .477

Table 169

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: REL95  
Data File: REL01

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 90	Cat: #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	1	1	0,000	1,000	.019	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----	
Teacher to Group	8	0	0	0	0	0	0	0	5	0	0	3	8	.625	.727	.529	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	1	0	1	0	1	6	0	0	36	45	.800	.889	.229	
Marginal Totals		0	0	1	0	1	0	1	11	0	0	40	54				

329

330

Category Marginal Agreement: .529

Cohen's Kappa: .316

Table 170

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP9S  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	0	0	0	0	0	0	0	1	0	0	7	8	.125	.125	.100	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	1	0	0	0	0	0	0	0	0	0	44	45	.578	.565	.400	
Marginal Totals		1	0	0	0	0	0	0	1	0	0	52	54				

Category Marginal Agreement: .248

Cohen's Kappa: .144



Table 171

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 30 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000
Target to Student	3	0	0	1	0	0	0	0	0	0	0	3	4	.250	.750	.206	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	1	1	0.000	1.000	.019	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Student to Target	7	0	0	0	0	0	0	2	0	0	0	0	2	1.000	1.000	1.000	
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
None of the above	11	1	0	2	1	1	0	0	1	0	0	41	47	.872	.957	.234	
Marginal Totals		1	0	3	1	1	0	2	1	0	0	45	54				

334

333

Category Marginal Agreement: .530

Cohen's Kappa: .311

Table 172

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP96  
Data File: RELD1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
WORSO

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	3	1	0	0	0	0	0	0	0	0	4	.750	1.000	.730
Target to Tchr & GPP	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	1	1	0	0	0	0	0	0	0	2	0.000	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Other Adult to group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	0	0	0	0	0	0	0	0	47	47	1.000	.979	1.000	
Marginal Totals		0	0	4	2	0	0	0	0	0	0	48	54				

Category Marginal Agreement: .396

Cohen's Kappa: .665

335

336

Table 173

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 10 Expert 80  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	2	0	0	0	0	0	0	0	0	0	0	2	1.000	.667	1.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	2	1.000	1.000	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	1	0	1	2	0.000	0.000	0.000
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	0	0	0	1	0	0	0	9	0	0	11	21	.429	.619	.314
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Student to Group	10	0	1	0	0	0	0	0	0	0	0	1	2	0.000	0.000	0.000
None of the above	11	1	0	0	0	0	0	0	4	0	0	44	49	.898	.860	.621
Marginal Totals		3	1	2	1	0	0	0	13	1	0	57	76			

333

337

Category Marginal Agreement: .349  
Cohen's Kappa: .455

Table 174

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP98  
Data File: RELD1

Reliability on Interactions  
Observer 20    Expert 80  
School 801    Grade 2  
Week 0        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	2	0	0	0	0	0	0	0	0	0	0	2	1.000	.667	1.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	2	1.000	1.000	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	1	0	0	0	0	0	1	2	.500	1.000	.487
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	1	0	0	0	1	0	0	17	0	0	2	21	.810	.875	.725
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Student to Group	10	0	0	0	0	0	0	0	1	0	1	0	2	.500	.500	.494
None of the above	11	0	0	0	0	0	2	0	6	2	0	39	49	.796	.857	.558
Marginal Totals		3	0	2	0	2	2	0	24	2	1	42	78			

Category Marginal Agreement: .612

Cohen's Kappa: .644

Table 175

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 30 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Target to Student	3	0	0	1	0	0	0	0	0	0	0	2	3	.333	.333	.253
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	2	0	0	0	0	0	2	4	.500	1.000	.475
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	0	0	2	0	2	0	0	0	63	75	.840	.920	.104
Marginal Totals		0	0	9	0	4	0	2	0	0	0	69	84			

341

342

Category Marginal Agreement: .376  
Cohen's Kappa: .177



Table 176

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1979

Date: 06-25-79  
Program: RELP95  
Data File: RELO1

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 2  
Week 0 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	1	0	0	0	0	0	0	0	0	0	0	1	1.000	1.000	1.000
Target to Other Adult	2	0	0	0	0	0	0	0	1	0	0	0	1	0.000	0.000	0.000
Target to Student	3	0	0	1	0	0	0	0	0	0	0	2	3	.333	.500	.262
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	4	0	0	0	4	0.000	0.000	0.000
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	5	0	0	0	1	0	0	0	69	75	.920	.947	.483
Marginal Totals		1	0	6	0	0	0	1	5	0	0	71	84			

Category Marginal Agreement: .350

Cohen's Kappa: .362

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Wayne Otto  
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Reading and Communication

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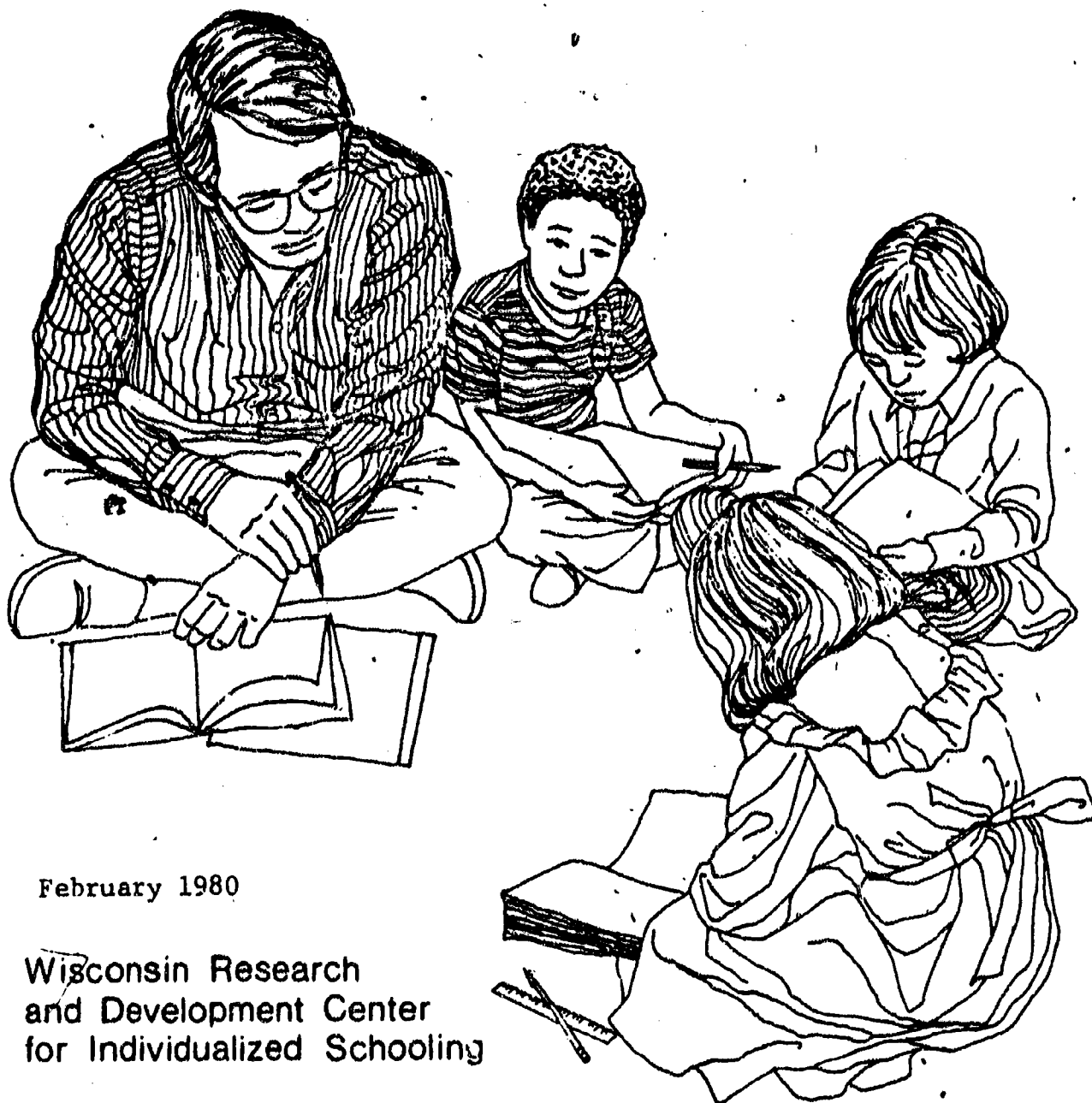
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Phase IV  
Project Paper 79-25  
Part 2 of 2 Parts

INTEROBSERVER AGREEMENT FOR THE OBSERVATION PROCEDURES  
FOR THE DMP AND WDRSD OBSERVERS  
DESCRIPTIVE STUDY

by Norman L. Webb



February 1980

Wisconsin Research  
and Development Center  
for Individualized Schooling

Phase IV

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Part 2 of 2 Parts

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by

Norman L. Webb

Report from the  
IGE Evaluation Project

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Madison, Wisconsin

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- developing and demonstrating improved instructional strategies, processes, and materials for students, teachers, and school administrators
- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

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## Abstract

This project paper reports the interobserver agreements and reliabilities for the observation procedures used in the Descriptive Study of Phase IV of the ICE Evaluation Project. Only data from observers at the two DMP and two WDRSD schools are reported in this paper. The four observers attended a four day training session, January 10-13 1978, to learn how to use the observation procedures. On March 16 and 17 a retraining session was held at the middle of the fourteen week investigative period to check on the interobserver agreements. In addition, on-site visits were made to each school by one of the Phase IV staff where both the observer and staff member did one or two observations together. Interobserver agreement and reliabilities were computed for each of these three situations -- training session, retraining session, and on-site visits. For each pair of observers and for each category, marginal agreements were computed. For the sets of categories--General Content, Pacing, Grouping, Materials, Learner Moves and Interactions -- Category Marginal Agreements and Cohen's Kappa were computed. Generalizability coefficients for estimates of reliability were computed for the training and retraining sessions for groups of three observers observing two or three classes for two days. The results indicated that there was high interobserver agreement at the three different check times on the categories of self-paced, other-paced, individual, large group, paper/pencil, engaged-written, engaged-covert, and non-engaged off task. The low interobserver agreements

were explained mainly as a result of a low frequency of occurrence.

The generalizability coefficients for total engagement and total non-engagement were acceptable.

APPENDIX B

Contingency Tables for each set of Observation Categories  
for Pairs of Observers for the WDRSD and DMP Training Session  
(March 16 and 17 1978)

## Appendix B

Included in this appendix are:

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Table 177

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10    Expert 90  
School 801    Grade 5  
Week 9    Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	2	0	0	0	0	0	2	1.000	1.000	1.000
Management	3	0	0	1	0	0	0	0	1	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	1	0	1	1.000	1.000	1.000
None of the Above	7	0	0	0	0	0	0	85	85	1.000	.988	1.000
Marginal Totals		0	2	1	0	0	1	85	90			

Category Marginal Agreement: .798

Cohen's Kappa: .885

Table 178

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DHP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	2	0	0	0	0	0	2	1.000	.500	1.000
Management	3	0	1	0	0	0	0	0	1	0.000	0.000	0.000
Break	4	0	0	0	1	0	0	0	1	1.000	.333	1.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	1	0	0	0	0	0	1	0.000	0.000	0.000
None of the Above	7	0	0	0	2	0	0	83	85	.976	.976	.697
Marginal Totals		0	4	0	3	0	0	83	90			

Category Marginal Agreement: .362

Cohen's Kappa: .682

353

Table 179

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	3	0	0	0	0	0	4	7	.429	.429	.409
Transition	2	0	1	0	0	0	0	2	3	.333	.333	.326
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	2	0	2	1.000	1.000	1.000
None of the Above	7	0	0	0	0	0	0	78	78	1.000	.929	1.000
Marginal Totals		3	1	0	0	0	2	84	90			

Category Marginal Agreement: .673

Cohen's Kappa: .648



Table 180

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	0.000	-----
Transition	2	1	5	0	0	0	0	0	6	.833	1.000	.817
Management	3	0	0	0	0	0	0	4	4	0.000	0.000	0.000
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	1	0	1	0	0	54	56	.966	.966	.708
Marginal Totals		1	6	0	1	0	0	54	66			

Category Marginal Agreement: .393

Cohen's Kappa: .569

Table 182

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category Chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	6	0	0	0	0	0	6	1.000	.857	1.000
Management	3	0	0	1	0	0	0	3	4	.250	.500	.227
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	1	1	1	0	0	53	56	.946	1.000	.646
Marginal Totals		0	7	2	1	0	0	56	66			

Category Marginal Agreement: .589

Cohen's Kappa: .662

Table 181

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
wait	1	3	0	0	0	0	0	0	3	1.000	1.000	1.000
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	15	0	15	1.000	1.000	1.000
None of the Above	7	0	0	0	0	0	0	42	42	1.000	1.000	1.000
Marginal Totals		3	0	0	0	0	15	42	60			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

332

Table 183

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	0,000	-----
Transition	2	1	4	0	0	0	0	0	5	.800	.800	.790
Management	3	0	0	2	0	0	0	0	2	1,000	.667	1,000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	1	0	0	0	76	77	.987	.987	.864
Marginal Totals		1	4	3	0	0	0	76	84			

Category Marginal Agreement: .613

Cohen's Kappa: .857

Table 184

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Genera' Content  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	5	0	0	0	0	0	5	1,000	1,000	1,000
Management	3	0	0	2	0	0	0	0	2	1,000	.667	1,000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	1	0	0	0	76	77	.987	.987	.864
Marginal Totals		0	5	3	0	0	0	76	84			

Category Marginal Agreement: .885

Cohen's Kappa: .928

364

Table 185

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	1	0	0	0	0	0	0	1	1.000	1.000	1.000
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	2	2	0.000	0.000	0.000
Break	4	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	74	74	1.000	.961	1.000
Marginal Totals		1	0	0	0	0	0	77	78			

Category Marginal Agreement: .490

Cohen's Kappa: .392

Table 186

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
None	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	4	0	0	0	0	0	4	1.000	1.000	1.000
Management	3	0	0	5	0	0	0	1	6	.833	.833	.824
Break	4	0	0	0	2	0	0	1	3	.667	.667	.659
Nonecademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	77	77	1.000	.975	1.000
Marginal Totals		0	4	5	2	0	0	79	90			

Category Marginal Agreement: .869

Cohen's Kappa: .869

350

Table 187

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	4	0	0	0	0	0	4	1.000	1.000	1.000
Management	3	0	0	6	0	0	0	0	6	1.000	1.000	1.000
Break	4	0	0	0	2	0	0	1	3	.667	.667	.659
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	77	77	1.000	.987	1.000
Marginal Totals		0	4	6	2	0	0	78	90			

Category Marginal Agreement: .913

Cohen's Kappa: .956



Table 188

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	88	88	1.000	.978	-----
Marginal Totals		0	0	0	0	0	0	90	90			

Category Marginal Agreement: .326

Cohen's Kappa: 0.000 358

Table 189

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	1	0	0	0	0	0	1	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	1	0	0	0	1	0.000	0.000	0.000
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	88	88	1.000	1.000	1.000
Marginal Totals		0	1	0	1	0	0	88	90			

Category Marginal Agreements: .500

Cohen's Kappa: .746

Table 190

Phase IV. - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	4	0	0	0	0	0	4	1.000	1.000	1.000
Management	3	0	0	3	0	0	0	0	3	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	58	58	1.000	.983	1.000
Marginal Totals		0	4	3	0	0	0	59	66			

Category Marginal Agreement: .746

Cohen's Kappa: .376

376

Table 191

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9    Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	4	0	0	0	0	0	4	1.000	1.000	1.000
Management	3	0	0	3	0	0	0	0	3	1.000	1.000	1.000
Break	4	0	0	0	1	0	0	0	1	1.000	1.000	1.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	58	58	1.000	1.000	1.000
Marginal Totals		0	4	3	1	0	0	58	66			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 192

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
HDRSN

Category chosen by Expert 80	Cat. n	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	2	0	0	0	0	2	4	.500	.500	.483
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	56	56	1.000	.966	1.000
Marginal Totals		0	2	0	0	0	0	58	60			

Category Marginal Agreement: .733

Cohen's Kappa: .651

372

Table 193

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9    Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	2	0	0	0	0	2	4	.500	.500	.483
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	56	56	1.000	.966	1.000
Marginal Totals		0	2	0	0	0	0	58	60			

Category Marginal Agreement: .733

Cohen's Kappa: .651

Table 194

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	4	0	0	0	0	1	5	.800	1.000	.787
Management	3	0	0	0	0	0	0	0	0	-----	0.000	-----
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	2	2	0.000	0.000	0.000
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	1	1	1	0	0	74	77	.961	1.000	.832
Marginal Totals		0	5	1	1	0	0	77	84			

Category Marginal Agreement: .400

Cohen's Kappa: .543

374

Table 195

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	5	0	0	0	0	0	5	1,000	.714	1,000
Management	3	0	0	0	0	0	0	0	0	-----	0,000	-----
Break	4	0	0	0	0	0	0	0	0	-----	0,000	-----
Nonacademic	5	0	0	0	0	0	0	2	2	0,000	0,000	0,000
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7		2	1	1	0	0	73	77	.948	.974	.815
Marginal Totals		0	7	1	1	0	0	75	84			

Category Marginal Agreement: .338

Cohen's Kappa: .556



Table 196

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 1.0  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	3	0	0	0	0	0	3	1,000	1,000	1,000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	81	81	1,000	1,000	1,000
Marginal Totals		0	3	0	0	0	0	81	84			

Category Marginal Agreement: 1,000

Cohen's Kappa: 1,000

376

Table 197

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40    Expert 80  
School 001    Grade 2  
Week 9    Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	3	0	0	0	0	0	3	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	81	81	1.000	1.000	1.000
Marginal Totals		0	3	0	0	0	0	81	84			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 198

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	78	4	0	82	.951	.988	.512
Other	2	2	1	0	3	.333	.600	.294
Neither	3	1	0	4	5	.800	.800	.791
Marginal Totals		81	5	4	90			

Category Marginal Agreement: .796

Cohen's Kappa: .557

Table 199

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	80	0	2	82	.976	.988	.686
Other	2	3	0	0	3	0.000	0.000	0.000
Neither	3	0	0	5	5	1.000	.714	1.000
Marginal Totals		83	0	7	90			

Category Marginal Agreement: .567

Cohen's Kappa: .643

Table 200  
 Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 40 Expert 80  
 School 801 Grade 5  
 Week 9 Day 4  
 OMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	27	2	0	29	.931	.879	.891
Other	2	4	45	0	49	.918	.961	.812
Neither	3	2	4	6	12	.500	.500	.464
Marginal Totals		33	51	6	90			

Category Marginal Agreement: .780

Cohen's Kappa: .764



Table 201

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	6	2	0	8	.750	.875 /	.720
Other	2	0	46	0	46	1.000	.902	1.000
Neither	3	1	3	8	12	.667	.667	.621
Marginal Totals		7	51	8	66			

Category Marginal Agreement: .815

Cohen's Kappa: .787

Table 202

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	6	1	1	8	.750	1.000	.716
Other	2	2	44	0	46	.957	.958	.841
Neither	3	0	3	9	12	.750	.833	.705
Marginal Totals		8	48	10	66			

Category Marginal Agreement | .931

Cohen's Kappa | .765

387

386

Table 203

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40 - Expert 80  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	5	0	0	5	1.000	.556	1.000
Other	2	4	33	0	37	.892	.892	.760
Neither	3	0	0	18	18	1.000	1.000	1.000
Marginal Totals		9	33	18	60			

category Marginal Agreement: .816

Cohen's Kappa: .881



Table 204  
 Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 10 Expert 90  
 School 801 Grade 2  
 Week 9 Day 4  
 DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
self	1	64	5	1	70	.914	.957	.576
Other	2	3	4	0	7	.571	.778	.520
Neither	3	0	0	7	7	1.000	.875	1.000
Marginal Totals		67	9	8	84			

Category Marginal Agreement: .870

Cohen's Kappa: .664



Table 205

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9    Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	69	0	1	70	.986	.959	.891
Other	2	4	3	0	7	.429	.429	.407
Neither	3	0	0	7	7	1.000	.875	1.000
Marginal Totals		73	3	8	84			

Category Marginal Agreement: .754

Cohen's Kappa: .775

Table 206

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

258

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	43	1	0	44	.977	.846	.932
Other	2	8	22	0	30	.733	.833	.608
Neither	3	1	2	1	4	.250	.250	.240
Marginal Totals		52	25	1	78			

Category Marginal Agreement: .643

Cohen's Kappa: .692

Table 208

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	73	2	0	75	.973	.974	.815
Other	2	2	0	0	2	0.000	1.000	.023
Neither	3	2	0	11	13	.846	.846	.825
Marginal Totals		77	2	11	90			

Category Marginal Agreement: .940

Cohen's Kappa: .752

259

Table 207

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

260

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	74	1	0	75	.987	.974	.908
Other	2	2	0	0	2	0.000	.500	-.011
Neither	3	1	0	12	13	.923	.923	.911
Marginal Totals		77	1	12	90			

category Marginal Agreement: .799

Cohen's Kappa: .834

399

398

Table 209

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 80  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	28	10	0	38	.737	.763	.612
Other	2	0	50	0	50	1.000	.820	1.000
Neither	3	1	1	0	2	0.000	0.000	0.000
Marginal Totals		29	61	0	90			

Category Marginal Agreement: .528

Cohen's Kappa: .726

Table 210

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40    Expert 80  
School 801    Grade 5  
Week 9    Day 5  
DMP

262

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	35	3	0	38	.921	.950	.858
Other	2	5	45	0	50	.900	.960	.786
Neither	3	0	0	2	2	1.000	1.000	1.000
Marginal Totals		40	48	2	90			

Category Marginal Agreement: .970

Cohen's Kappa: .828

402

403

Table 211

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	23	1	1	25	.920	.781	.845
Other	2	9	24	0	33	.727	.758	.561
Neither	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		32	25	9	66			

Category Marginal Agreement: .809

Cohen's Kappa: .727



Table 212

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

264

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	23	2	0	25	.920	.735	.835
Other	2	11	22	0	33	.667	.727	.476
Neither	3	0	0	8	8	1.000	1.000	1.000
Marginal Totals		34	24	8	66			

Category Marginal Agreement: .821

Cohen's Kappa: .676

407

406

Table 213

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
WORSO

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	22	2	0	24	.917	.853	
Other	2	2	30	0	32	.938	.866	
Neither	3	2	0	2	4	.500	.483	
Marginal Totals		26	32	2	60			

Category Marginal Agreement: .808

Cohen's Kappa: .815

Table 114

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

266

Reliability on Pace  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	24	0	0	24	1.000	.923	1.000
Other	2	0	32	0	32	1.000	1.000	1.000
Neither	3	2	0	2	4	.500	.500	.483
Marginal Totals		26	32	2	60			

Category Marginal Agreement: .808

Cohen's Kappa: .938

Table 215

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 10 Expert 90  
 School 801 Grade 2  
 Week 9 Day 5  
 DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	33	1	1	35	.943	.854	.888
Other	2	7	33	2	42	.786	.857	.625
Neither	3	1	2	4	7	.571	1.000	.532
Marginal Totals		41	36	7	84			

Category Marginal Agreement: .904

Cohen's Kappa: .710

267

Table 216

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

268

Reliability on Pace  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	31	2	2	35	.886	.875	.782
Other	2	7	33	2	42	.786	.833	.633
Neither	3	2	0	5	7	.714	.778	.68p
Marginal Totals		40	35	9	84			

Category Marginal Agreement: .829

Cohen's Kappa: .694

Table 217

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	47	12	3	62	.758	.774	.435
Other	2	1	18	0	19	.947	.633	.918
Neither	3	0	0	3	3	1.000	.500	1.000
Marginal Totals		48	30	6	84			

category Marginal Agreement: .636

Cohen's Kappa: .65

269

417

Table 218

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
DMP

270

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	56	6	0	62	.903	.903	.710
Other	2	0	19	0	19	1.000	.760	1.000
Neither	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		56	25	3	84			

418

Category Marginal Agreement: .888

Cohen's Kappa: .837

419

Table 219

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10, Expert 90  
School 801, Grade 5  
Week 9, Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	61	2	3	0	0	66	.924	.917	.621
Pair	2	8	7	2	0	0	17	.412	.529	.346
Small Group (3-8)	3	2	0	0	0	0	2	0.000	.400	-.059
Large Group (>8)	4	0	0	0	0	0	0	-----	-----	-----
None of the above	5	1	0	0	0	4	5	.800	.800	.791
Marginal Totals		72	9	5	0	4	90			

Category Marginal Agreement: .662

Cohen's Kappa: .488



Table 220

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

272

Reliability on Grouping  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	59	4	1	0	2	66	.894	.943	.523
Pair	2	10	7	0	0	0	17	.412	.706	.321
Small group (3-8)	3	1	1	0	0	0	2	0.000	.500	-.011
Large group (>8)	4	0	0	0	0	0	0	-----	-----	-----
None of the above	5	0	0	0	0	5	5	1.000	.714	1.000
Marginal Totals		70	12	1	0	7	90			

Category Marginal Agreement: .716

Cohen's Kappa: .472

123

422

Table 221  
 Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Grouping  
 Observer 40 Expert 80  
 School 801 Grade 5  
 Week 9 Day 4  
 DMP

Category chosen by EXPERT 80	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	26	0	0	2	0	28	.929	.875	.889
Pair	2	2	0	0	0	0	2	0.000	.500	-.011
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	2	1	0	45	0	48	.938	.941	.856
None of the above	5	2	0	0	4	6	12	.500	.500	.464
Marginal Totals		32	1	0	51	6	90			

Category Marginal Agreement: .704

Cohen's Kappa: .750

Table 222

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

274

Reliability on Grouping  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	5	1	0	1	0	7	.714	.857	.686
Pair	2	0	2	0	0	0	2	1.000	.667	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	45	0	45	1.000	.918	1.000
None of the above	5	1	0	0	3	8	12	.667	.667	.621
Marginal Totals		6	3	0	49	8	66			

Category Marginal Agreement: .777

Cohen's Kappa: .803

426

427

Table 223

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9    Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	3	2	0	1	1	7	.429	.571	.392
Pair	2	0	2	0	0	0	2	1.000	.500	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	1	0	0	44	0	45	.978	.938	.919
None of the above	5	0	0	0	3	9	12	.750	.833	.705
Marginal Totals		4	4	0	48	10	66			

Category Marginal Agreement: .711

Cohen's Kappa: .741

Table 224

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

276

Reliability on Grouping  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9        Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	5	0	0	0	0	5	1.000	.556	1.000
Pair	2	0	0	0	0	0	0	-----	-----	-----
Small Group (3-8)	3	4	0	33	0	0	37	.892	.892	.760
Large Group (>8)	4	0	0	0	0	0	0	-----	-----	-----
None of the above	5	0	0	0	0	18	18	1.000	1.000	1.000
Marginal Totals		9	0	33	0	18	60			

Category Marginal Agreement: .816

Cohen's Kappa: .881

430

431

Table 225

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	55	1	0	0	1	57	.965	.877	.845
Pair	2	6	5	0	0	0	11	.455	.636	.405
Small Group (3-8)	3	1	1	0	0	0	2	0.000	0.000	0.000
Large Group (>8)	4	3	0	0	4	0	7	.571	.571	.550
None of the above	5	0	0	0	0	7	7	1.000	.875	1.000
Marginal Totals		65	7	0	4	8	84			

Category Marginal Agreement: .592

Cohen's Kappa: .658

Table 226

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

278

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	52	4	0	0	1	57	.912	.934	.680
Pair	2	3	8	0	0	0	11	.727	.917	.682
Small Group (3-8)	3	2	0	0	0	0	2	0.000	0.000	0.000
Large Group (>8)	4	4	0	0	3	0	7	.429	.429	.407
None of the above	5	0	0	0	0	7	7	1.000	.875	1.000
Marginal Totals		61	12	0	3	8	84			

Category Marginal Agreement: .631

Cohen's Kappa: .651

434

435

Table 227

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	34	7	0	1	0	42	.810	.933	.550
Pair	2	2	0	0	0	0	2	0.000	.286	-.099
Small Group (3-8)	3	8	0	4	0	0	12	.333	.333	.297
Large Group (>8)	4	0	0	0	18	0	18	1.000	.857	1.000
None of the above	5	1	0	0	2	1	4	.250	.250	.240
Marginal Totals		45	7	4	21	1	78			

Category Marginal Agreement: .532

Cohen's Kappa: .563



Table 228

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

280

Reliability on Grouping  
Observer 10    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	59	1	2	0	0	62	.952	.925	.811
Pair	2	4	3	0	0	0	7	.429	.857	.388
Small Group (3-8)	3	2	2	4	0	0	8	.500	.750	.464
Large Group (>8)	4	0	0	0	0	0	0	-----	-----	-----
None of the above	5	2	0	0	0	11	13	.846	.846	.825
Marginal Totals		67	6	6	0	11	90			

Category Marginal Agreement: .845

Cohen's Kappa: .685

439

438

Table 229

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	55	4	2	1	0	62	.887	.984	.650
Pair	2	4	3	0	0	0	7	.429	.778	.365
Small Group (3-8)	3	2	1	5	0	0	8	.625	.875	.593
Large Group (>8)	4	0	0	0	0	0	0	-----	0.000	-----
None of the above	5	0	1	0	0	12	13	.923	.923	.911
Marginal Totals		61	9	7	1	12	90			

Category Marginal Agreement: .712

Cohen's Kappa: .666

Table 230

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

282

Reliability on Grouping  
Observer 30    Expert 80  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	22	4	0	5	0	31	.710	.742	.610
Pair	2	1	6	0	1	0	8	.750	.615	.708
Small Group (3-8)	3	0	2	0	0	0	2	0.000	0.000	0.000
Large Group (9-8)	4	0	0	0	47	0	47	1.000	.870	1.000
None of the above	5	0	1	0	1	0	2	0.000	0.000	0.000
Marginal Totals		23	13	0	54	0	90			

442

443

Category Marginal Agreement: .446

Cohen's Kappa: .715

Table 231

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 40    Expert 80  
School 801    Grade 5  
Week 9        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	28	0	0	3	0	31	.903	.775	.826
Pair	2	5	2	0	1	0	8	.250	.250	.233
Small Group (3-8)	3	2	0	0	0	0	2	0.000	0.000	0.000
Large Group (>8)	4	5	0	0	42	0	47	.894	.979	.782
None of the above	5	0	0	0	0	2	2	1.000	1.000	1.000
Marginal Totals		40	2	0	46	2	90			

Category Marginal Agreement: .601

Cohen's Kappa: .692

Table 232

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

284

Reliability on Grouping  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	16	0	0	1	1	18	.889	.750	.825
Pair	2	2	7	2	0	0	11	.636	.818	.579
Small Group (3-8)	3	1	0	0	0	0	1	0.000	.500	-.031
Large Group (>8)	4	5	2	0	21	0	28	.750	.786	.625
None of the above	5	0	0	0	0	8	8	1.000	.889	1.000
Marginal Totals		24	9	2	22	9	66			

447

446

Category Marginal Agreement: .749

Cohen's Kappa: .705

Table 233

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	13	1	2	2	0	18	.722	.857	.593
Pair	2	2	9	0	0	0	11	.818	.846	.774
Small Group (3-8)	3	0	0	1	0	0	1	1.000	.250	1.000
Large Group (>8)	4	6	3	1	18	0	28	.643	.714	.488
None of the above	5	0	0	0	0	8	8	1.000	1.000	1.000
Marginal Totals		21	13	4	20	8	66			

Category Marginal Agreement: .734

Cohen's Kappa: .650

Table 234

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 30    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

286

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	21	0	0	0	0	21	1.000	.840	1.000
Pair	2	0	3	0	0	0	3	1.000	1.000	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	2	0	0	30	0	32	.938	.938	.875
None of the above	5	2	0	0	0	2	4	.500	.500	.483
Marginal Totals		25	3	0	30	2	60			

450

Category Marginal Agreement: .819

Cohen's Kappa: .886

451

Table 235

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	21	0	0	0	0	21	1.000	.913	1.000
Pair	2	0	3	0	0	0	3	1.000	1.000	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	32	0	32	1.000	1.000	1.000
None of the above	5	2	0	0	0	2	4	.500	.500	.483
Marginal Totals		23	3	0	32	2	60			

Category Marginal Agreement: .853

Light's Kappa: .942



Table 236

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

208

Category chosen by Expert 90	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
	Cat. #	1	2	3	4					5
Individual	1	30	1	0	1	1	33	.909	.917	.841
Pair	2	0	5	0	0	0	5	1.000	.417	1.000
Small Group (3-8)	3	0	0	0	0	0	0	-----	0.000	-----
Large Group (>8)	4	5	6	0	26	2	39	.667	.692	.509
None of the above	5	1	0	2	0	4	7	.571	1.000	.532
Marginal Totals		36	12	2	27	7	84			

454

Category Marginal Agreement: .605

Cohen's Kappa: .661

455

Table 237

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	28	1	0	2	2	33	.848	.970	.755
Pair	2	0	4	1	0	0	5	.800	.833	.785
Small Group (3-8)	3	0	0	0	0	0	0	-----	0.000	-----
Large Group (>8)	4	4	1	0	32	2	39	.821	.872	.698
None of the above	5	0	0	2	0	5	7	.714	.778	.680
Marginal Totals		32	6	3	34	9	84			

Category Marginal Agreement: .691

Cohen's Kappa: .725

2006

Table 238  
 Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Grouping  
 Observer 30 Expert 80  
 School 801 Grade 2  
 Week 9 Day 5  
 DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	41	1	2	4	0	48	.854	.917	.694
Pair	2	3	9	0	0	0	12	.750	.917	.712
Small Group (3-8)	3	0	1	1	1	0	3	.333	1.000	.309
Large Group (>8)	4	0	0	0	18	0	18	1.000	.783	1.000
None of the above	5	0	0	0	0	3	3	1.000	1.000	1.000
Marginal Totals		44	11	3	23	3	84			

453

Category Marginal Agreement: .923

Cohen's kappa: .770

459

Table 239

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	43	0	3	2	0	48	.896	1.000	.757
Pair	2	5	7	0	0	0	12	.583	.750	.533
Small Group (3-8)	3	0	2	0	1	0	3	0.000	1.000	-.037
Large Group (>8)	4	0	0	0	18	0	18	1.000	.857	1.000
None of the above	5	0	0	0	0	3	3	1.000	1.000	1.000
Marginal Totals		48	9	3	21	3	84			

Category Marginal Agreement: .921

Cohen's Kappa: .743

Table 240

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

292

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	61	21	0	82	.744	.756	.177
Not used	2	1	2	0	3	.667	.125	.545
Other	3	0	1	4	5	.800	.800	.791
Marginal Totals		62	24	4	90			

Category Marginal Agreement: .560

Cohen's Kappa: .292

462

463

Table 241

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20 Expert 90  
 School 801 Grade 5  
 Week 9 Day 4  
 DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	80	1	1	82	.976	1.000	.726
Not used	2	2	0	1	3	0.000	.333	-.011
Other	3	0	0	5	5	1.000	.714	1.000
Marginal Totals		82	1	7	90			

Category Marginal Agreement: .693

Cohen's Kappa: .664

Table 242

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

294

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	48	12	0	60	.800	.850	.508
Not used	2	2	16	0	18	.889	.545	.825
Other	3	1	5	6	12	.500	.500	.464
Marginal Totals		51	33	6	90			

467

Category Marginal Agreement: .632

Cohen's Kappa: .588

166

Table 243

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 4  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	9	1	0	10	.900	.833	.878
Not used	2	2	42	0	44	.955	.95	.850
Other	3	1	3	8	12	.667	.667	.621
Marginal Totals		12	46	8	66			

Category Marginal Agreement: .819

Cohen's Kappa: .782



Table 244

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 4  
WDRSD

296

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	8	1	1	10	.800	.800	.772
Not used	2	0	44	0	44	1.000	.917	1.000
Other	3	0	3	9	12	.750	.833	.705
Marginal Totals		8	48	10	66			

Category Marginal Agreement: .850

Cohen's Kappa: .839

471

Table 245

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	25	0	0	25	1.000	.735	1.000
Not used	2	9	8	0	17	.471	.471	.389
Other	3	0	0	18	18	1.000	1.000	1.000
Marginal Totals		34	8	18	60			

Category Marginal Agreement: .735

Cohen's Kappa: .764

Table 246

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
DMP

298

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	76	0	1	77	.987	.987	.864
Not used	2	0	0	0	0	-----	-----	-----
Other	3	0	0	7	7	1.000	.875	1.000
Marginal Totals		76	0	8	84			

474

475

Category Marginal Agreement: .931

Cohen's Kappa: .927

Table 247

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20    Expert 90  
 School 801    Grade 2  
 week 9        Day 4  
 DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
used	1	76	0	1	77	.987	.987	.864
Not used	2	0	0	0	0	-----	-----	-----
Other	3	0	0	7	7	1.000	.875	1.000
Marginal Totals		76	0	8	84			

Category Marginal Agreement: .931

Cohen's Kappa: .928

Table 248

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

300

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	46	1	0	47	.979	.979	.945
Not used	2	1	26	0	27	.963	.931	.941
Other	3	1	2	1	4	.250	.250	.240
Marginal Totals		48	29	1	78			

479

Category Marginal Agreement: .720

Cohen's Kappa: .872

478

Table 249

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	72	5	0	77	.935	.961	.635
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	2	0	11	13	.846	.846	.825
Marginal Totals		74	5	11	90			

Category Marginal Agreement: .602

Cohen's Kappa: .721

Table 250

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

302

Reliability on Materials  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	76	1	0	77	.987	1.000	.910
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	1	0	12	13	.923	.923	.911
Marginal Totals		77	1	12	90			

483

482

Category Marginal Agreement: .641

Cohen's Kappa: .911

Table 251

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 5  
1 Week 9    Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	75	1	0	76	.987	.884	.704
Not used	2	10	2	0	12	.167	.333	.128
Other	3	1	1	0	2	0.000	0.000	0.000
Marginal Totals		86	4	0	90			

Category Marginal Agreement: .406

Cohen's Kappa: .228



Table 252

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 5  
Week 9        Day 5  
DMP

304

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	71	5	0	76	.934	.934	.688
Not used	2	0	12	0	12	1.000	.706	1.000
Other	3	0	0	2	2	1.000	1.000	1.000
Marginal Totals		71	17	2	90			

Category Marginal Agreement: .880

Cohen's Kappa: .820

486

487

Table 253

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	24	16	1	41	.585	.585	.348
Not used	2	0	17	0	17	1.000	.515	1.000
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		24	33	9	66			

Category Marginal Agreement: .663

Cohen's Kappa: .590

Table 254

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20 Expert 90  
 School 801 Grade 2  
 Week 9 Day 5  
 WDRSD

306

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	37	4	0	41	.902	.976	.752
Not used	2	3	14	0	17	.824	.944	.757
Other	3	0	0	8	8	1.000	1.000	1.000
Marginal Totals		40	18	8	66			

Category Marginal Agreement: .973

Cohen's Kappa: .803

491

490

Table 255

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 2  
Week 9    Day 5  
WDRSD

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category Chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	51	0	0	51	1.000	.962	1.000
Not used	2	0	5	0	5	1.000	1.000	1.000
Other	3	2	0	2	4	.500	.500	.483
Marginal Totals		53	5	2	60			

Category Marginal Agreement: .821

Cohen's Kappa: .861

Table 256

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

308

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	51	0	0	51	1.000	.944	1.000
Not used	2	1	4	0	5	.800	.800	.786
Other	3	2	0	2	4	.500	.500	.483
Marginal Totals		54	4	2	60			

495

494

Category Marginal Agreement: .748

Cohen's Kappa: .780

Table 257  
 Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 10 Expert 90  
 School 801 Grade 2  
 Week 9 Day 5  
 DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	40	5	2	47	.851	.894	.702
Not used	2	1	28	1	30	.933	.857	.886
Other	3	1	2	4	7	.571	1.000	.532
Marginal Totals		42	35	7	84			

Category Marginal Agreement: .917

Cohen's Kappa: .747

Table 258

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

310

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	43	1	3	47	.915	.940	.790
Not used	2	6	23	1	30	.767	.833	.668
Other	3	1	1	5	7	.714	.778	.680
Marginal Totals		50	25	9	84			

498

499

Category Marginal Agreement: .850

Cohen's Kappa: .719

Table 259

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	63	3	0	66	.955	.955	.818
Not used	2	0	15	0	15	1.000	.833	1.000
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		63	18	3	84			

Category Marginal Agreement: .929

Cohen's Kappa: .904



Table 260

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	66	0	0	66	1.000	.971	1.000
Not used	2	2	13	0	15	.867	.867	.842
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		68	13	3	84			

502

503

Category Marginal Agreement: .946

Cohen's Kappa: .929

Table 261

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

Materials Manipulative

Category chosen * by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	4	0	4	0.000	.250	-.011
Not used	2	1	80	0	81	.988	.953	.778
Other	3	0	1	4	5	.800	.800	.791
Marginal Totals		1	85	4	90			

category Marginal Agreement: .668

Cohen's Kappa: .547

Table 262

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

314

Material: Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	4	0	4	0.000	0.000	0.000
Not used	2	0	79	2	81	.975	.976	.683
Other	3	0	0	5	5	1.000	.714	1.000
Marginal Totals		0	83	7	90			

Category Marginal Agreement: .563

Cohen's Kappa: .598

506

507

Table 263

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	15	0	0	15	1.000	.405	1.000
Not used	2	18	45	0	63	.714	.746	.402
Other	3	4	2	6	12	.500	.500	.464
Marginal Totals		37	47	6	90			

Category Marginal Agreement: .550

Cohen's Kappa: .521

Table 264

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

316

Materials Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	9	0	9	0.000	.111	-.013
Not used	2	1	64	0	65	.985	.855	.400
Other	3	0	3	1	4	.250	.250	.240
Marginal Totals		1	76	1	78			

Category Marginal Agreement: .405

Cohen's Kappa: .103

510

511

Table 265.

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 - Grade 5  
Week 9 Day 5  
DMP

Material: Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	0.000	-----	
Not used	2	2	75	0	77	1.000	.820	
Other	3	0	2	11	13	.846	.825	
Marginal Totals		2	77	11	90			

Category Marginal Agreement: .615

Cohen's Kappa: .822

513

512

317

Table 266

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

318

Reliability on Materials  
Observer 30 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMP

Materials Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	10	2	0	12	.833	.480	.769
Not used	2	14	62	0	76	.816	.855	.337
Other	3	1	1	0	2	0.000	0.000	0.000
Marginal Totals		25	65	0	90			

Category Marginal Agreement | .445

Cohen's Kappa | .434

515

Table 267

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMP

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	7	5	0	12	.583	.667	.543
Not used	2	1	75	0	76	.987	.950	.882
Other	3	0	0	2	2	1.000	1.000	1.000
Marginal Totals		8	80	2	90			

Category Marginal Agreement: .872

Cohen's Kappa: .719



Table 268

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

320

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	53	3	0	56	.946	.982	.357
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	2	0	2	4	.500	.500	.483
Marginal Totals		55	3	2	60			

Category Marginal Agreement: .494

Cohen's Kappa: .414

518

519

Table 269

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	45	11	0	56	.804	.804	.214
Not used	2	0	0	0	0	-----	0.000	-----
Other	3	0	2	2	4	.500	.500	.483
Marginal Totals		45	13	2	60			

Category Marginal Agreement: .435

Cohen's Kappa: .272

Table 270

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

322

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Materials Manipulative

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used.	2	1	73	3	77	.948	.987	.455
Other	3	0	3	4	7	.571	1.000	.532
Marginal Totals		1	76	7	84			

Category Marginal Agreement: .662

Cohen's Kappa: .491

522

523

Table 271

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Material Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	80	0	80	1.000	.988	1.000
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		0	81	3	84			

Category Marginal Agreement: .663

Cohen's Kappa: .852

Table 272

Phase IV - IAE Evaluation Project  
 Descriptive Study - Spring 1978

324

Reliability on Materials  
 Observer 40 Expert 80  
 School 801 Grade 2  
 Week 9 Day 5  
 DMP

Material: Manipulative

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	1	0	0	1	1.000	1.000	1.000
Not used	2	0	80	0	80	1.000	1.000	1.000
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		1	80	3	84			

527

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

526

Table 273

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Materials Game

Category chosen by Expert 80	Cat, #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	4	0	4	0.000	0.000	0.000
Not used	2	0	74	0	74	1.000	.881	1.000
Other	3	0	6	6	12	.500	.500	.464
Marginal Totals		0	84	6	90			

Category Marginal Agreement: .460

Cohen's Kappa: .503

Table 274

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

326

Materials Game

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	33	1	34	0.000	0.000	0.000
Not used	2	0	41	2	43	.953	.558	.442
Other	3	0	3	4	7	.571	1.000	.532
Marginal Totals		0	77	7	84			

531

530

Category Marginal Agreement: .519

Cohen's Kappa: .114

Table 275

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Material: Game

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	33	1	34	0.000	0.000	0.000
Not used	2	0	40	3	43	.930	.573	.349
Other	3	0	2	5	7	.714	.778	.680
Marginal Totals		0	75	9	84			

Category Marginal Agreement: .450

Cohen's Kappa: .131



Table 276

Phase IV - IAE Evaluation Project  
Descriptive Study - Spring 1978

328

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 2  
Week 9    Day 5  
DMP

Materials Game

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	8	0	0	8	1.000	.800	1.000
Not used	2	2	71	0	73	.973	.973	.823
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		10	71	3	84			

534

535

Category Marginal Agreement: .924

Cohen's Kappa: .906

Table 277

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9        Day 5  
DMP

Material: Game

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	6	2	0	8	.750	.750	.731
Not used	2	0	73	0	73	1.000	.973	1.000
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		6	75	3	84			

536

Category Marginal Agreement: .908

Cohen's Kappa: .890

537 329

Table 278

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

330

Material: Audio/visual aid

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	3	55	0	58	.948	.948	.690
Other	3	0	0	8	8	1.000	1.000	1.000
Marginal Totals		3	55	8	66			

Category Marginal Agreement: .649

Cohen's Kappa: .820

533

539

Table 279

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	8	3	0	11	.727	1.000	.689
Not used	2	2	72	0	74	.973	.987	.838
Other	3	1	0	4	5	.800	.800	.791
Marginal Totals		11	75	4	90			

Category Marginal Agreement: .929

Cohen's Kappa: .776

331

Table 280

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

332

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	7	4	0	11	.636	.727	.601
Not used	2	1	71	2	74	.959	.987	.757
Other	3	0	0	5	5	1.000	.714	1.000
Marginal Totals		8	75	7	90			

542

543

Category Marginal Agreement: .809

Cohen's Kappa: .740

Table 281

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	14	0	0	14	1.000	.737	1.000
Not used	2	5	59	0	64	.922	.985	.719
Other	3	0	6	6	12	.500	.500	.464
Marginal Totals		19	65	6	90			

Category Marginal Agreement: .740

Cohen's Kappa: .725

Table 282

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9    Day 4  
WDRSD

334

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Night's Extension of Kappa
		1	2	3				
Used	1	8	9	0	17	.471	.471	.389
Not used	2	0	25	0	25	1.000	.735	1.000
Other	3	0	0	18	18	1.000	1.000	1.000
Marginal Totals		8	34	18	60			

546

547

Category Marginal Agreement: .735

Cohen's Kappa: .764

Table 283

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	6	1	0	7	.857	.875	.841
Not used	2	2	65	0	67	.970	.971	.741
Other	3	0	3	1	4	.250	.250	.240
Marginal Totals		8	69	1	78			

Category Marginal Agreement: .699

Cohen's Kappa: .666



Table 284

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

336

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	.100	-.125
Not used	2	10	66	0	76	.868	.908	.436
Other	3	0	2	11	13	.846	.846	.825
Marginal Totals		10	69	11	90			

550

551

Category Marginal Agreement: .618

Cohen's Kappa: .567

Table 285

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 5  
DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not Used	2	0	76	0	76	1.000	.974	1.000
Other	3	0	1	12	13	.923	.923	.911
Marginal Totals		0	78	12	90			

Category Marginal Agreement: .632

Cohen's Kappa: .911

Table 286

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

338

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 5  
Week 9        Day 5  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	13	1	0	14	.929	.933	.914
Not used	2	2	72	0	74	.973	.987	.838
Other	3	0	2	0	2	0.000	0.000	0.000
Marginal Totals		15	75	0	90			

555

554

Category Marginal Agreement: .640  
Cohen's Kappa: .808

Table 287

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 5  
Week 9        Day 5  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	12	2	0	14	.857	.929	.833
Not used	2	1	73	0	74	.986	.987	.919
Other	3	0	0	2	2	1.000	1.000	1.000
Marginal Totals		13	75	2	90			

Category Marginal Agreement: .972

Cohen's Kappa: .886

Table 288

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

340

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	10	4	0	14	.714	.714	.663
Not used	2	0	43	1	44	.977	.936	.921
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		10	47	9	66			

559

558

Category Marginal Agreement: .846

Cohen's Kappa: .841

Table 289

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	14	0	14	0.000	0.000	0.000
Not used	2	0	44	0	44	1.000	.759	1.000
Other	3	0	0	8	8	1.000	1.000	1.000
Marginal Totals		0	58	8	66			

Category Marginal Agreement: .586

Cohen's Kappa: .469

Table 290

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

342

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9    Day 5  
DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	73	3	76	.961	.987	.526
Other	3	0	3	4	7	.571	1.000	.532
Marginal Totals		0	77	7	84			

562

563

Category Marginal Agreement: .662

Cohen's Kappa: .491

Table 291

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20    Expert 90  
 School 801    Grade 2  
 Week 9        Day 5  
 DMP

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	72	4	76	.947	.987	.509
Other	3	0	2	5	7	.714	.778	.680
Marginal Totals		0	75	9	84			

Category Marginal Agreement: .588

Cohen's Kappa: .545



Table 292

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

344

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	11	1	0	12	.917	.917	.905
Not used	2	0	73	0	73	1.000	.973	1.000
Other	3	0	1	4	5	.800	.800	.791
Marginal Totals		11	75	4	90			

586

587

Category Marginal Agreement: .897

Cohen's Kappa: .927

Table 293

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	11	1	0	12	.917	.923	.903
Not used	2	2	69	2	73	.945	.959	.753
Other	3	0	0	5	5	1.000	.714	1.000
Marginal Totals		13	70	7	90			

Category Marginal Agreement: .865

Cohen's Kappa: .839

569

345

Table 294

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 801    Grade 2  
Week 9        Day 4  
DMP

346

Material: Other

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	2	0	0	2	1.000	1.000	1.000
Not used	2	0	72	0	72	1.000	.960	1.000
Other	3	0	3	1	4	.250	.250	.240
Marginal Totals		2	75	1	78			

570

571

Category Marginal Agreement: .737

Cohen's Kappa: .654

Table 295

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Materials Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	2	4	0	6	.333	.333	.318
Not used	2	0	71	0	71	<del>1.000</del>	.922	1.000
Other	3	0	2	11	13	.846	.846	.825
Marginal Totals		2	77	11	90			

Category Marginal Agreement: .701

Cohen's Kappa: .782

Table 296

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

348

Materials: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	6	0	6	0.000	0.000	0.000
Not used	2	0	71	0	71	1.000	.910	1.000
Other	3	0	1	12	13	.923	.923	.911
Marginal Totals		0	78	12	90			

575

574

Category Marginal Agreement: .611

Cohen's Kappa: .738

Table 297

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	1.000	-.015
Not used	2	1	55	1	57	.965	.982	.768
Other	3	0	0	8	8	1.000	.889	1.000
Marginal Totals		1	56	9	66			

Category Marginal Agreement: .957

Cohen's Kappa: .819

Table 298

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

350

Reliability on Materials  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
WDRSD

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	57	0	57	1.000	.983	1.000
Other	3	0	0	8	8	1.000	1.000	1.000
Marginal Totals		0	58	8	66			

579

578

Category Marginal Agreement .661

Cohen's Kappa .933

Table 299

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	1	0	0	1	1.000	.500	1.000
Not used	2	1	72	3	76	.947	.987	.509
Other	3	0	3	4	7	.571	1.000	.532
Marginal Totals		2	75	7	84			

Category Marginal Agreement: .829

Cohen's Kappa: .549



Table 300

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

352

Materials: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	1.000	-.012
Not used	2	1	71	4	76	.934	.974	.447
Other	3	0	2	5	7	.714	.778	.680
Marginal Totals		1	74	9	84			

583

Category Marginal Agreement: .917

Cohen's Kappa: .509

582

Table 301

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 801    Grade 2  
Week 9    Day 5  
DMP

Material: Other

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	80	0	80	1.000	.988	1.000
Other	3	0	0	3	3	1.000	1.000	1.000
Marginal Totals		0	81	3	84			

Category Marginal Agreement: .663

Cohen's Kappa: .852

Table 302

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Materials: Other

Category chosen by Expert 80	Cat. #	Category chosen by Observer/ 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	1	0	0	1	1.000	1.000	
Not used	2	0	80	0	80	1.000	1.000	
Other	3	0	0	3	3	1.000	1.000	
Marginal Totals		1	80	3	84			

category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

586

587

Table 303

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	21	1	7	0	0	0	0	29	.724	.897	.612
Engaged - oral	2	0	3	1	1	1	2	0	8	.375	.750	.330
Engaged - covert	3	5	1	5	2	0	2	0	15	.333	.789	.155
Not engaged - interim	4	0	0	2	12	0	1	0	15	.800	.882	.753
Not engaged - waiting	5	0	1	1	0	0	1	0	3	0.000	.333	-.011
Not engaged -off task	6	0	0	3	1	0	11	0	15	.733	.882	.671
None of the above	7	0	0	0	1	0	0	4	5	.800	.800	.791
Marginal Totals		26	6	19	17	1	17	4	90			

Category Marginal Agreement: .762

Cohen's Kappa: .528

Table 304

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20    Expert 90  
School 801    Grade 5  
Week 9        Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	22	0	6	0	0	1	0	29	.759	.697	.661
Engaged - oral	2	0	4	0	0	2	2	0	8	.500	1.000	.451
Engaged - covert	3	3	3	8	1	0	0	0	15	.533	.862	.425
Not engaged - Interim	4	0	0	1	12	0	1	1	15	.800	.633	.750
Not engaged - waiting	5	0	0	1	1	1	0	0	3	.333	1.000	.310
Not engaged - off task	6	1	1	1	4	0	7	1	15	.467	.733	.392
None of the above	7	0	0	0	0	0	0	5	5	1.000	.714	1.000
Marginal Totals		26	8	17	18	3	11	7	90			

Category Marginal Agreement: .866

Cohen's Kappa: .574

589

Table 305

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	13	0	1	1	0	0	0	15	.867	.938	.838
Engaged - oral	2	0	2	0	0	0	0	0	2	1.000	.500	1.000
Engaged - covert	3	1	1	22	0	4	2	0	30	.733	.900	.619
Not engaged - interim	4	0	0	0	2	1	0	0	3	.667	.750	.651
Not engaged - waiting	5	0	0	4	0	11	0	0	15	.733	.682	.647
Not engaged - off task	6	2	1	0	0	1	9	0	13	.692	.846	.649
None of the above	7	0	0	0	1	5	0	6	12	.500	.500	.664
Marginal Totals		16	4	27	4	22	11	6	90			

Category Marginal Agreement: .731

Cohen's Kappa: .653

Table 306

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	3	0	1	0	0	0	0	4	.750	1.000	.734
Engaged - oral	2	0	3	2	1	0	0	0	6	.500	.667	.468
Engaged - covert	3	1	1	32	0	2	2	0	38	.842	.974	.614
Not engaged - interim	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - waiting	5	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - off task	6	0	0	2	1	0	3	0	6	.500	.833	.459
None of the above	7	0	0	2	1	1	0	8	12	.667	.657	.621
Marginal Totals		4	4	39	3	3	5	8	46			

Category Marginal Agreement: .598

Cohen's Kappa: .586

Table 307

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	3	0	0	0	0	0	1	4	.750	.750	.738
Engaged - oral	2	0	4	1	1	0	0	0	6	.667	1.000	.633
Engaged - covert	3	0	2	34	0	1	1	0	38	.895	1.000	.752
Not engaged - interim	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - waiting	5	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - off task	6	0	0	3	0	0	3	0	6	.500	.657	.441
None of the above	7	0	0	0	0	0	3	9	12	.750	.833	.705
Marginal Totals		3	6	38	1	1	7	10	66			

Category Marginal Agreement: .634

Cohen's Kappa: .682



Table 308

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	2	0	0	0	0	10	.800	1.000	.760
Engaged - oral	2	1	3	1	0	0	0	0	5	.600	.600	.579
Engaged - covert	3	1	0	12	2	2	0	0	17	.706	.941	.599
Not engaged - interim	4	0	0	0	3	0	0	0	3	1.000	.600	1.000
Not engaged - waiting	5	0	0	1	0	6	0	0	7	.857	.675	.835
Not engaged - off task	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	7	0	0	0	0	0	0	18	18	1.000	1.000	1.000
Marginal Totals		10	3	16	5	8	0	18	60			

Category Marginal Agreement: .836

Cohen's Kappa: .787 593

Table 309

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	12	0	12	0	1	0	0	25	.480	.760	.328
Engaged - oral	2	1	1	3	0	0	0	0	5	.200	.800	.160
Engaged - covert	3	5	2	10	0	1	2	1	21	.476	.776	.228
Not engaged - interim	4	0	0	0	3	0	0	0	3	1.000	1.000	1.000
Not engaged - waiting	5	1	0	1	0	5	1	0	8	.625	.727	.568
Not engaged - off task	6	0	1	1	0	4	9	0	15	.600	.800	.533
None of the above	7	0	0	0	0	0	0	7	7	1.000	.875	1.000
Marginal Totals		19	4	27	3	11	12	8	84			

Category Marginal Agreement: .620

Cohen's Kappa: .451

Table 310

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9    Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	19	1	3	0	0	2	0	25	.760	1.000	.658
Engaged - oral	2	0	4	0	0	0	1	0	5	.800	.714	.782
Engaged - covert	3	5	1	11	0	1	2	1	21	.524	.810	.403
Not engaged - interim	4	0	0	0	3	0	0	0	3	1.000	.750	1.000
Not engaged - waiting	5	1	0	1	1	5	0	0	8	.625	.889	.580
Not engaged - off task	6	0	1	2	0	3	9	0	15	.600	.933	.520
None of the above	7	0	0	0	0	0	0	7	7	1.000	.875	1.000
Marginal Totals		25	7	17	4	9	14	8	84			

Category Marginal Agreement: .853

Cohen's Kappa: .616

595

Table 311

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 80 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	2	1	0	2	0	13	.615	1.000	.538
Engaged - oral	2	0	3	1	0	0	0	0	4	.750	.333	.705
Engaged - covert	3	4	8	18	0	5	2	1	38	.174	.632	.240
Not engaged - interim	4	0	0	1	3	2	0	0	6	.500	.833	.466
Not engaged - waiting	5	1	1	0	0	3	2	0	7	.429	.700	.345
Not engaged - off task	6	0	0	0	1	0	5	0	6	.633	.500	.803
None of the above	7	0	0	2	0	0	1	1	4	.250	.500	.230
Marginal Totals		13	12	24	5	10	12	2	78			

Category Marginal Agreement: .643

Cohen's Kappa: .396

Table 312

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School #01 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Caty #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	14	0	4	0	1	0	0	19	.737	.947	.671
Engaged - oral	2	0	0	0	0	0	1	0	1	0.000	1.000	.011
Engaged - covert	3	1	0	14	1	0	6	0	22	.636	.955	.526
Not engaged - interim	4	1	1	0	6	0	0	0	8	.750	1.000	.726
Not engaged - waiting	5	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - off task	6	2	0	3	1	0	21	0	27	.778	.900	.667
None of the above	7	0	0	0	0	0	2	11	13	.846	.846	.825
Marginal Totals		18	1	21	8	1	30	11	90			

Category Marginal Agreement: .807

Cohen's Kappa: .656

597

Table 313

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category Chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	18	0	1	0	0	0	0	19	.947	.633	.921
Engaged - oral	2	0	0	0	0	0	1	0	1	0.000	1.000	-.011
Engaged - covert	3	0	0	8	2	0	4	0	22	.364	.545	.266
Not engaged - interim	4	0	1	1	6	0	0	0	8	.750	1.000	.726
Not engaged - waiting	5	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - off task	6	4	0	2	0	1	20	0	27	.741	.963	.635
None of the above	7	0	0	0	0	0	1	12	13	.923	.923	.911
Marginal Totals		30	1	12	8	1	26	12	90			

Category Marginal Agreement: .726

Cohen's Kappa: .631

Table 314

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	20	1	1	0	0	0	0	22	.909	.786	.868
Engaged - oral	2	0	1	5	0	0	0	0	6	.167	.857	.096
Engaged - covert	3	7	2	18	0	3	1	0	31	.581	.806	.419
Not engaged - Interleaved	4	0	0	0	2	0	0	0	2	1.000	.500	1.000
Not engaged - waiting	5	1	0	0	1	12	3	0	17	.706	1.000	.637
Not engaged - off task	6	0	3	1	0	1	5	0	10	.500	.900	.444
None of the above	7	0	0	0	1	1	0	0	2	0.000	0.000	0.000
Marginal Totals		28	7	25	4	17	9	0	90			

Category Marginal Agreement: .693

Cohen's Kappa: .541

599

Table 315

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40, Expert 80  
School 001, Grade 5  
Week 9, Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	17	1	3	0	0	1	0	22	.773	.957	.695
Engaged - oral	2	0	2	4	0	0	0	0	6	.333	1.000	.286
Engaged - covert	3	4	1	23	2	0	1	0	31	.742	.838	.562
Not engaged - interim	4	0	0	0	2	0	0	0	2	1.000	.500	1.000
Not engaged - waiting	5	1	1	5	0	10	0	0	17	.588	.588	.537
Not engaged - off task	6	1	1	2	0	0	6	0	10	.600	.800	.561
None of the above	7	0	0	0	0	0	0	2	2	1.000	1.000	1.000
Marginal Totals		23	6	37	4	10	8	2	90			

Category Marginal Agreement: .812

Cohen's Kappa: .890



Table 316

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	5	2	1	0	0	1	0	9	.556	.818	.467
Engaged - oral	2	0	1	2	0	0	0	0	3	.333	.375	.241
Engaged - covert	3	2	4	18	1	0	0	0	25	.720	1.000	.549
Not engaged - interim	4	1	0	2	0	1	0	2	6	0.000	.167	-.015
Not engaged - waiting	5	2	0	1	0	1	1	0	5	.200	.600	.162
Not engaged - off task	6	1	1	1	0	1	6	0	10	.600	.800	.545
None of the above	7	0	0	0	0	0	0	8	8	1.000	.800	1.000
Marginal Totals		11	8	25	1	3	8	10	66			

Category Marginal Agreement: .651

Cohen's Kappa: .480

601

Table 317

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20    Expert 90  
School 801    Grade 2  
Week 9    Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	0	0	1	0	0	9	.889	.643	.859
Engaged - oral	2	0	2	1	0	0	0	0	3	.667	.500	.633
Engaged - covert	3	4	4	16	1	0	0	0	25	.640	.760	.494
Not engaged - interim	4	1	0	0	3	2	0	0	6	.500	.833	.459
Not engaged - waiting	5	1	0	1	1	1	1	0	5	.200	.714	.105
Not engaged - off task	6	0	0	1	0	3	6	0	10	.600	.700	.553
None of the above	7	0	0	0	0	0	0	8	8	1.000	1.000	1.000
Marginal Totals		14	6	19	5	7	7	8	66			

Category Marginal Agreement: .736

Cohen's Kappa: .590

Table 318

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	13	0	0	0	1	0	0	14	.929	.737	.895
Engaged - oral	2	0	1	0	0	1	0	0	2	.500	.667	.474
Engaged - covert	3	5	1	10	0	6	1	0	23	.435	.522	.293
Not engaged - interim	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - waiting	5	0	0	0	0	7	1	0	8	.875	.444	.821
Not engaged -off task	6	1	0	2	0	3	3	0	9	.333	.556	.273
None of the above	7	0	1	0	1	0	0	2	3	.500	.500	.483
Marginal Totals		14	3	12	1	18	5	2	60			

Category Marginal Agreement: .489

Cohen's Kappa: .496

503

Table 319

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WORSO

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	13	0	1	0	0	0	0	14	.929	.875	.903
Engaged - oral	2	1	0	0	0	1	0	0	2	0.000	1.000	-.034
Engaged - covert	3	0	2	21	0	0	0	0	23	.913	.685	.847
Not engaged - interim	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Not engaged - waiting	5	0	0	1	0	6	1	0	8	.750	.889	.706
Not engaged -off task	6	2	0	3	1	2	1	0	9	.111	.222	.080
None of the above	7	0	0	0	2	0	0	2	4	.500	.500	.483
Marginal Totals		16	2	26	3	9	2	2	60			

Category Marginal Agreement: .624

Cohen's Kappa: .619

Table 320

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	13	0	2	0	1	0	0	16	.813	.941	.765
Engaged - oral	2	0	0	2	0	0	0	0	2	0.000	1.000	.024
Engaged - covert	3	4	2	25	0	2	1	0	34	.735	.872	.506
Not engaged - interim	4	0	0	3	4	1	1	0	9	.444	.444	.417
Not engaged - waiting	5	0	0	3	0	1	0	0	4	.250	.667	.192
Not engaged - off task	6	0	0	4	0	1	11	0	16	.688	.813	.630
None of the above	7	0	0	0	0	0	0	3	3	1.000	1.000	1.000
Marginal Totals		17	2	39	4	6	13	3	84			

Category Marginal Agreement: .820

Cohen's Kappa: .562

695

Table 321

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

## Reliability on Learner Moves

Observer 40    Expert 80

School 801    Grade 2

Week 9    Day 5

DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	14	0	1	0	1	0	0	16	.875	.696	.828
Engaged - oral	2	0	0	2	0	0	0	0	2	0.000	.500	-.012
Engaged - covert	3	9	0	21	0	1	3	0	34	.618	.853	.416
Not engaged - interim	4	0	1	1	7	0	0	0	9	.778	.778	.758
Not engaged - waiting	5	0	0	3	0	0	1	0	4	0.000	.750	-.037
Not engaged - off task	6	0	0	1	0	1	14	0	16	.875	.889	.841
None of the above	7	0	0	0	0	0	0	3	3	1.000	1.000	1.000
Marginal Totals		23	1	29	7	3	18	3	84			

Category Marginal Agreement: .781

Cohen's Kappa: .606

Table 322

Phase IV \* TGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	9	0	2	0	1	1	0	13	.692	.769	.651
Engaged - oral	2	0	1	0	0	0	0	1	2	.500	.667	.481
Engaged - covert	3	0	1	17	3	0	2	1	24	.708	.800	.546
Not engaged - interim	4	1	0	2	2	0	0	1	6	.333	.657	.273
Not engaged - waiting	5	0	1	8	1	11	4	0	25	.440	.520	.337
Not engaged - off task	6	0	0	1	0	1	5	0	7	.714	.500	.657
None of the above	7	0	0	0	1	0	2	4	7	.871	1.000	.532
Marginal Totals		10	3	30	7	13	14	7	84			

Category Marginal Agreement: .730

Cohen's Kappa: .483

607

Table 323

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	6	0	4	0	2	0	1	13	.462	.538	.413
Engaged - oral	2	0	1	0	0	0	0	1	2	.500	.333	.462
Engaged - covert	3	1	4	15	1	0	2	1	24	.625	.689	.447
Not engaged - interim	4	0	0	1	4	0	0	1	6	.667	.833	.646
Not engaged - waiting	5	0	1	6	0	16	2	0	25	.640	.760	.535
Not engaged - off task	6	0	0	1	0	1	5	0	7	.714	.636	.671
None of the above	7	0	0	0	0	0	2	5	7	.714	.778	.680
Marginal Totals		7	6	27	5	19	11	9	84			

Category Marginal Agreement: .681

Cohen's Kappa: .525



Table 324

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP98  
Data File: RELD1

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	1	0	0	0	0	0	0	0	0	0	0	1	1.000	1.000	1.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	5	7	.286	.571	.252
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	1	0	0	0	2	3	.333	.333	.326
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	2	0	0	0	0	1	0	0	76	79	.962	.952	.512
Marginal Totals		1	0	4	0	0	0	1	1	0	0	83	90			

Category Marginal Agreement: .571

Cohen's Kappa: .404

Table 325

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELO1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	1	0	0	0	0	0	0	0	0	0	0	1	1,000	.500	1,000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	3	0	0	0	0	0	0	0	4	7	.429	.857	.388
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	2	0	0	0	0	0	0	0	1	3	0,000	0,000	0,000
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	1	0	1	0	0	0	0	1	0	0	76	79	.962	.975	.620
Marginal Totals		2	0	6	0	0	0	0	1	0	0	81	90			

Category Marginal Agreement: .466

Cohen's Kappa: .487

Table 326

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: REI.P99  
Data File: REID1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	0	2	1.000	.500	1.000
Target to Tch'r & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	2	0	0	1	3	0.000	.333	-.011	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	0	0	0	0	2	0	0	0	0	2	1.000	.667	1.000	
Teacher to Group	8	1	0	0	0	0	0	1	8	0	0	3	13	.615	.613	.532	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	2	0	1	0	0	6	0	0	61	70	.871	.929	.537	
Marginal Totals		1	0	4	0	1	0	3	16	0	0	65	90				

613

Category Marginal Agreement: .540  
Cohen's Kappa: .540

614

Table 327

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP98  
Data File: RELD1

Reliability on Interactions  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9       Day 4  
WDRSO

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	1	0	0	0	1	0.000	.333	-.048
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	1	0	0	0	0	2	.500	.500	.492
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	1	0	0	0	1	0.000	1.000	-.015
Teacher to Group	8	2	0	0	0	0	0	0	23	0	0	3	28	.821	.966	.681
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	1	1	1	0.000	.333	-.048
None of the above	11	1	0	0	0	0	0	0	4	0	3	24	32	.750	.906	.854
Marginal Totals		3	0	1	0	0	0	1	29	0	3	29	66			

Category Marginal Agreement: .877

Cohen's Kappa: .844

Table 328

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
WORSO

Category chosen by EXPERT 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	1	0	1	0.000	1.000	-.015
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	2	1.000	.400	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	1	0	0	0	1	0.000	0.000	0.000
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	1	0	0	0	1	0.000	0.000	0.000
Teacher to Group	8	1	0	1	0	0	0	0	15	0	0	11	28	.536	.714	.334
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	1	0	0	0	1	0.000	.250	-.065
None of the above	11	0	0	2	0	0	0	0	2	0	3	25	32	.781	.889	.519
Marginal Totals		1	0	5	0	0	0	0	20	0	4	36	66			

617

Category Marginal Agreement: .465

Cohen's Kappa: .397

618

Table 329

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: REL01

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	3	0	0	0	0	0	0	1	0	0	0	4	.750	.750	.737
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	1	1	0.000	1.000	-.017
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	2	0	0	1	0	0	0	3	.667	.667	.655
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	1	0	0	0	0	0	0	0	0	1	0.000	.333	-.053
Teacher to Group	8	0	0	0	0	0	0	0	7	0	0	1	8	.875	.871	.837
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	0	0	0	0	3	5	0	0	35	43	.814	.860	.815
Marginal Totals		3	0	1	0	2	0	3	14	0	0	37	60			

Category Marginal Agreement: .697

Cohen's Kappa: .586

619

620

381

Table 330

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: REL01

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0,000	-----	
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	
Target to Student	3	0	0	1	0	0	0	1	0	0	0	0	0	3	.200	.600	.170
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	1	0	0	0	0	0	0	0	0	0	0	0	1	0,000	0,000	0,000
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	1	0	0	0	0	2	3	.333	1,000	.309
Teacher to Group	8	0	0	0	0	0	0	0	2	0	0	0	0	2	1,000	1,000	1,000
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	2	0	0	0	1	0	0	0	70	73	73	.959	.973	.616
Marginal Totals		1	0	3	0	0	0	3	2	0	0	75	84				

621

622

Category Marginal Agreement: .596  
Cohen's Kappa: .459

Table 331

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	4	0	0	0	0	0	0	0	1	5	.800	.833	.785	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Target	5	1	0	0	0	0	0	0	0	0	0	0	1	0.000	0.000	0.000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	0	0	0	0	0	0	0	0	3	3	0.000	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	1	0	0	1	2	.500	.500	.494	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	2	0	0	0	0	0	0	0	71	73	.973	.961	.712	
Marginal Totals		1	0	6	0	0	0	0	1	0	0	76	84				

Category Marginal Agreement: .382

Cohen's Kappa: .545



Table 332

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP98  
Date Filed: RELD1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	1	0	0	0	0	0	0	1	0	0	0	2	.500	.667	.480
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	2	1.000	.182	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	1	0	0	1	0	0	0	2	.500	.500	.494
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	1	0	0	0	0	0	0	0	1	2	0.000	.500	-.013
Teacher to Group	8	2	0	0	0	0	0	0	3	0	0	4	9	.333	.750	.212
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	8	0	0	0	1	7	0	0	45	61	.738	.820	.269
Marginal Totals		3	0	11	0	1	0	1	12	0	0	50	78			

625

626

Category Marginal Agreement: .570  
Cohen's Kappa: .299

Table 333

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	2	2	0.000	0.000	0.000
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
None of the above	11	1	0	0	0	0	0	0	0	0	0	0	85	86	.988	.966	-.046
Marginal Totals		1	0	0	0	0	0	0	0	0	0	0	89	90			

Category Marginal Agreements .193

Cohen's Kappa = .009

627

628

385

Table 334

389

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.000	0.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Student to Target	7	0	0	0	0	0	0	1	0	0	0	1	2	2	2	.500	.500
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.000	0.000
None of the above	11	1	0	0	0	0	0	0	0	0	0	0	85	86	86	.988	.977
Marginal Totals		1	0	0	0	0	0	1	0	0	0	88	90	90			

629

Category Marginal Agreement: .295

(31)

Cohen's Kappa: .32

Table 335

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP9S  
Data File: RELO1

Reliability on Interactions  
Observer 30 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMF

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	1	0	0	1	0	0	1	3	0.000	.333	-.011
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	0	1	1.000	.125	1.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Target	5	1	0	0	0	0	0	0	0	0	0	0	1	0.000	.500	-.023
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	1	0	0	0	0	0	0	0	1	0.000	0.000	0.000
Teacher to Group	8	0	0	0	1	0	0	0	6	0	0	5	12	.500	.750	.444
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	11	0	0	7	2	1	0	0	2	0	0	60	72	.833	.917	.375
Marginal Totals		1	0	8	4	2	0	0	9	0	0	66	90			

Category Marginal Agreement: .375

Cohen's Kappa: .359



Table 336

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 5  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	1	0	0	0	0	0	0	2	0	0	0	3	.333	.667	.318
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	0	1	1,000	.250	1,000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	1	0	0	0	0	0	0	1	1,000	.500	1,000
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	1	0	0	0	0	1	1,000	.250	1,000
Teacher to Group	8	0	0	0	0	0	0	1	7	0	0	4	12	.583	.545	.449
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	1	0	3	0	1	0	2	13	0	0	52	72	.722	.778	.265
Marginal Totals		2	0	4	0	2	0	4	22	0	0	56	90			

633

634

Category Marginal Agreement: .498

Cohen's Kappa: .359

Table 337

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 10 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0,000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	2	3	,333	,429	,254
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	1	1	0,000	1,000	-,015
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	1	0	0	0	0	0	0	0	1	2	0,000	0,000	0,000
Teacher to Group	8	0	0	0	0	0	0	0	11	0	0	1	12	,917	,800	,892
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
None of the above	11	1	0	5	1	2	0	0	4	0	1	34	48	,708	,813	,287
Marginal Totals		1	0	7	1	2	0	0	15	0	1	39	66			

Category Marginal Agreement: .380

Cohen's Kappa: .422

Table 338

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP98  
Data File: RELO1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa		
		1	2	3	4	5	6	7	8	9	10	11						
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	1	1	3	.667	.500	.633	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	1	1	1	0.000	0.000	0.000	
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	1	0	0	0	0	0	0	0	1	2	2	0.000	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	10	0	0	2	12	12	.833	.857	.788	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----	
None of the above	11	0	0	3	0	0	0	0	4	0	1	40	48	48	.833	.938	.876	
Marginal Totals		0	0	6	0	0	0	0	14	0	1	45	66	66				

638

637

Category Marginal Agreement: .382  
Cohen's Kappa: .540

Table 339

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELO1

Reliability on Interactions  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	1	1	0,000	1,000	-.017
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	2	1,000	,500	1,000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	1	0	0	0	1	0	0	0	0	2	,500	1,000	,483
Teacher to Group	8	0	0	0	0	0	0	0	3	0	0	7	10	,300	,300	,263
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	1	0	1	0	0	0	1	0	0	0	42	45	,933	,900	,600
Marginal Totals		1	0	4	0	0	0	2	3	0	0	50	60			

Category Marginal Agreement: .740

Cohen's Kappa: .469

639

640

391



Table 340

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP9S  
Data File: RELO1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
WDRSD

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	1	0	0	0	1	2	0.000	1.000	.034
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	1	0	0	0	1	0	0	0	0	2	.500	1.000	.483
Teacher to Group	8	0	0	0	0	0	0	0	7	0	0	3	10	.700	.900	.647
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
None of the above	11	0	0	1	0	0	0	0	2	0	1	41	45	.911	.978	.619
Marginal Totals		0	0	2	0	0	0	2	9	0	1	46	60			

641

642

Category Marginal Agreement: .646

Cohen's Kappa: .539

Table 341

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD1

Reliability on Interactions  
Observer 10    Expert 90  
School 801    Grade 2  
Week 9        Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	1	0	0	0	0	0	0	0	0	0	0	1	2	.500	1.000	.488
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	0	0	0	0	1	0	0	0	1	2	.500	.500	.494	
Teacher to Group	8	0	0	0	0	0	0	0	3	0	0	1	4	.750	.800	.734	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----	
None of the above	11	1	0	1	0	0	0	0	2	0	1	70	75	.933	.987	.440	
Marginal Totals		2	0	1	0	0	0	1	5	0	1	74	84				

Category Marginal Agreements: .472

Cohen's Kappa: .489

643

644

393

Table 342

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP93  
Data File: RELO1

Reliability on Interactions  
Observer 20 Expert 90  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	1	0	0	0	0	0	0	0	0	0	0	1	2	.500	.667	.481
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000	
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	1	0	0	0	0	0	0	0	1	2	0.000	.500	-.012	
Teacher to Group	8	0	0	0	0	0	0	0	3	0	0	1	4	.750	.750	.741	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	2	0	1	0	1	0	1	0	0	0	70	75	.933	.987	.440	
Marginal Totals		3	0	2	0	1	0	1	3	0	0	74	84				

643

645

Category Marginal Agreement: .415

Cohen's Kappa: .435

Table 343

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELPSS  
Data File: RELD1

Reliability on Interactions  
Observer 30 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by EXPERT 80	Cat. #	Category chosen by Observer 30										Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10					11
Target to Teacher	1	0	0	0	0	1	0	0	0	0	0	0	1	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	2	2	0.000	.500	-.050
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	1	4	0.000	0.000	0.000
Student to Target	7	0	0	2	1	0	0	0	0	0	0	4	9	.556	1.000	.502
Teacher to Group	8	0	0	0	0	0	0	0	5	0	0	4	9	-----	-----	-----
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	2	1	2	0	0	4	0	0	59	68	.868	.971	.382
Marginal Totals		0	0	4	2	3	0	0	9	0	0	66	66			

Category Marginal Agreement: .383

Cohen's Kappa: .382

Table 344

Phase II - 102 Evaluation Project  
Descriptive Study - Spring 1979

Date: 06-25-79  
Program: RELP98  
Data File: RELD1

Reliability on Interactions  
Observer 40 Expert 80  
School 801 Grade 2  
Week 9 Day 5  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	1	0	0	0	0	0	0	1	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	1	0	0	0	1	2	0.000	1.000	-.024
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	2	0	0	0	2	4	.500	.750	.481
Teacher to Group	8	0	0	0	0	0	0	0	5	0	0	4	9	.556	1.000	.502
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
None of the above	11	0	0	2	0	0	0	0	0	1	61	68	68	.897	1.000	.460
Marginal Totals		0	0	2	0	1	0	3	5	0	1	68	68			

650

649

Category Marginal Agreement: .834

Cohen's Kappa: .624

APPENDIX C

Contingency Tables for each Set of Observation Categories  
for Pairs of Observers for the On-site visits  
to the WDRSD and DMP Schools

## Appendix C

Included in this appendix are:

Tables 345 - 350	Observer 10	School 452	Grade 2	Week 5	Day 3
Tables 351 - 356	Observer 10	School 452	Grade 5	Week 5	Day 3
Tables 357 - 364	Observer 10	School 452	Grade 2	Week 15	Day 5
Tables 365 - 370	Observer 20	School 504	Grade 2	Week 4	Day 1
Tables 371 - 378	Observer 20	School 504	Grade 2	Week 15	Day 2
Tables 379 - 387	Observer 20	School 504	Grade 5	Week 15	Day 2
Tables 388 - 393	Observer 30	School 433	Grade 2	Week 4	Day 4
Tables 394 - 402	Observer 30	School 433	Grade 5	Week 16	Day 2
Tables 403 - 410	Observer 40	School 440	Grade 5	Week 4	Day 4

Table 345

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 452 Grade 2  
Week 5 Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	13	0	0	0	0	0	13	1.000	.929	1.000
Management	3	0	0	1	0	0	0	0	1	1.000	.333	1.000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	4	0	4	1.000	1.000	1.000
None of the Above	7	0	1	2	0	0	0	51	54	.944	.944	.810
Marginal Totals		0	14	3	0	0	4	51	72			

Category Marginal Agreement: .802

Cohen's Kappa: .903



Table 346

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10    Expert 90  
School 452    Grade 2  
Week 5        Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	4	1	1	6	.667	.857	.631
Other	2	3	26	2	31	.839	.871	.742
Neither	3	0	0	35	35	1.000	.921	1.000
Marginal Totals		7	27	38	72			

Category Marginal Agreement: .883

Cohen's Kappa: .831

655

654

Table 347

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 90  
School 452    Grade 2  
Week 5    Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	4	0	0	1	1	6	.667	1.000	.636
Pair	2	0	1	0	1	0	2	.500	.500	.493
Small group (3-8)	3	1	0	0	0	0	1	0.000	0.000	0.000
Large group (>8)	4	1	0	0	25	2	28	.893	.964	.829
None of the above	5	0	0	0	0	35	35	1.000	.921	1.000
Marginal Totals		6	1	0	27	38	72			

Category Marginal Agreement: .677

Cohen's Kappa: .835

656

657

Table 348

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 10 Expert 90  
 School 452 Grade 2  
 Week 5 Day 3  
 WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	6	3	1	10	.600	.600	.564
Not used	2	0	25	2	27	.926	.964	.879
Other	3	0	0	35	35	1.000	.921	1.000
Marginal Totals		6	28	38	72			

Category Marginal Agreement: .828

Cohen's Kappa: .858

(55)

(6)

Table 349

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 452 Grade 2  
Week 5 Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	1	0	2	2	0	0	1	6	.167	.167	.155
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	0	1	14	0	0	0	1	16	.875	.889	.833
Not engaged - interim	4	0	0	0	3	0	0	0	3	1.000	.500	1.000
Not engaged - waiting	5	0	1	1	1	0	1	1	5	0.000	0.000	0.000
Not engaged -off task	6	0	0	1	0	0	6	0	7	.857	1.000	.842
None of the above	7	0	0	0	0	0	0	35	35	1.000	.921	1.000
Marginal Totals		1	2	18	6	0	7	38	72			

Category Marginal Agreement: .497

Cohen's Kappa: .732

Table 350

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELO3

Reliability on Interactions  
Observer 10 Expert 90  
School 452 Grade 2  
Week 5 Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	-----
Student to Target	7	0	0	0	0	0	0	0	1	0	0	0	1	1	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	5	0	0	2	7	7	.714	.667	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	4	1	5	5	.800	.786	
None of the above	11	1	0	1	0	0	0	0	0	0	0	57	59	59	.966	.983	
Marginal Totals		1	0	1	0	0	0	0	6	0	4	60	72	72			

Category Marginal Agreement: .440

Cohen's Kappa: .727

651

0.72

Table 351

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 452 Grade 5  
Week 5 Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	0	0	0	0	0	2	1.000	1.000	1.000
Transition	2	0	1	0	0	0	0	0	1	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	1	1	0.000	0.000	0.000
None of the Above	7	0	0	0	0	0	0	62	62	1.000	.984	1.000
Marginal Totals		2	1	0	0	0	0	63	66			

Category Marginal Agreement: .746

Cohen's Kappa: .852

Table 352

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10    Expert 90  
School 452    Grade 5  
Week 5        Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	8	6	0	14	.571	1.000	.456
Other	2	5	43	0	48	.896	.980	.596
Neither	3	1	0	3	4	.750	.750	.738
Marginal Totals		14	49	3	66			

Category Marginal Agreement: .910

Cohen's Kappa: .559

665

654

Table 353

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 90  
School 452    Grade 5  
Week 5    Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	8	0	0	2	0	10	.800	.769	.751
Pair	2	0	0	0	0	0	0	-----	0,000	-----
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	4	1	0	47	0	52	.904	.942	.627
None of the above	5	1	0	0	0	3	4	.750	.750	.738
Marginal Totals		13	1	0	49	3	66			

Category Marginal Agreement: .615

666

Cohen's Kappa: .683

667

407



Table 354

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

408

Reliability on Materials  
Observer 10 Expert 90  
School 452 Grade 5  
Week 5 Day 3  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	47	0	0	47	1.000	.959	1.000
Not used	2	1	14	0	15	.933	.933	.915
Other	3	1	0	3	4	.750	.750	.738
Marginal Totals		49	14	3	66			

Category Marginal Agreement: .881

Cohen's Kappa: .928

669

668

Table 355

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 452 Grade 5  
Week 5 Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	4	0	3	0	1	2	0	10	.400	.400	.361
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	-----	-----
Engaged - covert	3	0	0	17	0	0	2	0	19	.895	.543	.776
Not engaged - interim	4	0	0	1	1	1	0	0	3	.333	1.000	.302
Not engaged - waiting	5	0	0	13	2	5	1	0	21	.238	.476	.102
Not engaged - off task	6	0	0	1	0	2	6	0	9	.667	.818	.600
None of the above	7	0	0	0	0	1	0	3	4	.750	.750	.738
Marginal Totals		4	0	35	3	10	11	3	66			

Category Marginal Agreement: .668

Cohen's Kappa: .404

Table 356

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD3

Reliability on Interactions  
Observer 10 Expert 90  
School 452 Grade 5  
Week 5 Day 3  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Teacher to Group	8	0	0	0	0	0	0	0	10	0	4	15	29	.345	.379	.214
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	3	1	4	.750	.444	.711
None of the above	11	0	0	0	0	0	0	0	1	0	2	28	31	.903	.674	.681
Marginal Totals		0	0	0	0	0	0	0	11	0	9	46	66			

671

672

Category Marginal Agreement: .300  
Oshen's Kappa: .359

Table 357

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	2	0	0	0	0	0	0	2	1.000	.667	1.000
Transition	2	0	7	0	0	0	0	0	7	1.000	1.000	1.000
Management	3	1	0	2	0	0	0	0	3	.667	.667	.657
Break	4	0	0	0	3	0	0	0	3	1.000	1.000	1.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	12	0	12	1.000	1.000	1.000
None of the Above	7	0	0	0	0	0	0	45	45	1.000	1.000	1.000
Marginal Totals		3	7	2	3	0	12	45	72			

Category Marginal Agreement: .889

Cohen's Kappa: .976

Table 258

412

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Category chosen, by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	13	1	0	14	.929	.875	.908
Other	2	3	28	0	31	.903	.935	.838
Neither	3	0	0	27	27	1.000	1.000	1.000
Marginal Totals		16	29	27	72			

Category Marginal Agreement: .937

Cohen's Kappa: .914

675

674

Table 359

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 10    Expert 90  
School 452    Grade 2  
Week 15    Day 5  
WDRSD

Category chosen by Expert 90	Category chosen by Observer 10					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
	Cat. #	1	2	3	4					5
Individual	1	7	0	1	0	0	8	.875	.615	.847
Pair	2	5	5	0	0	0	10	.500	.900	.429
Small Group (3-8)	3	1	4	1	0	0	6	.167	.500	.130
Large Group (>8)	4	0	0	1	20	0	21	.952	.952	.934
None of the above	5	0	0	0	0	27	27	1.000	1.000	1.000
Marginal Totals		13	9	3	20	27	72			

Category Marginal Agreement: .794

Cohen's Kappa: .774

Table 360

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

414

Reliability on Materials  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	23	1	0	24	.958	.958	.939
Not used	2	0	21	0	21	1.000	.955	1.000
Other	3	0	0	27	27	1.000	1.000	1.000
Marginal Totals		23	22	27	72			

673

Category Marginal Agreement: .971  
Cohen's Kappa: .979

679

Table 361

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	2	0	2	0.000	0.000	0.000
Not used	2	0	43	0	43	1.000	.956	1.000
Other	3	0	0	27	27	1.000	1.000	1.000
Marginal Totals		0	45	27	72			

Category Marginal Agreement: .652

Cohen's Kappa: .943

650

681

415



Table 362

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

914

Reliability on Materials  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Material: Can't Tell

Category chosen by Expert 90	Obs. #	Category chosen by Observer 10			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	44	0	44	1.000	.978	1.000
Other	3	0	0	27	27	1.000	1.000	1.000
Marginal Totals		0	45	27	72			

632

Category Marginal Agreement: .659

633

Cohen's Kappa: .971

Table 363

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	5	1	2	0	0	0	0	8	.625	.875	.585
Engaged - oral	2	0	2	1	0	0	0	0	3	.667	1.000	.652
Engaged - covert	3	1	0	19	0	0	4	0	24	.792	.958	.694
Not engaged - interim	4	0	0	0	2	0	0	0	2	1.000	1.000	1.000
Not engaged - waiting	5	1	0	1	0	2	1	0	5	.400	.400	.383
Not engaged - off task	6	0	0	0	0	0	3	0	3	1.000	.375	1.000
None of the above	7	0	0	0	0	0	0	27	27	1.000	1.000	1.000
Marginal Totals		7	3	23	2	2	8	27	72			

Category Marginal Agreement: .601

Cohen's Kappa: .773

Table 364

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring, 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD3

Reliability on Interactions  
Observer 10 Expert 90  
School 452 Grade 2  
Week 15 Day 5  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 10											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	1	0	0	0	0	0	0	0	1	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	1	0	0	0	0	0	1	0.000	1.000	-.014
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Target	5	0	0	0	0	1	0	0	1	0	0	0	2	.500	.500	.493
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	0.000	-----
Teacher to Group	8	0	0	0	0	0	0	0	11	0	1	2	14	.786	.875	.724
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	1	0	0	0	0	1	0	0	0	2	0.000	.500	-.014
None of the above	11	0	1	0	0	0	0	1	3	0	0	47	52	.904	.942	.699
Marginal Totals		0	1	1	1	1	1	1	16	0	1	49	72			

686

685

Category Marginal Agreement: .382

Cohen's Kappa: .611

Table 365

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 504 Grade 2  
Week 4 Day 1  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	3	0	0	0	0	0	3	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Break	4	0	0	0	4	0	0	0	4	1.000	1.000	1.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	46	46	1.000	.979	1.000
Marginal Totals		0	3	0	4	0	0	47	54			

Category Marginal Agreement: .748

Cohen's Kappa: .926

Table 366

420

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 20 Expert 90  
 School 504 Grade 2  
 Week 4 Day 1  
 WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	14	0	0	14	1.000	.737	1.000
Other	2	5	27	0	32	.844	.875	.675
Neither	3	0	1	7	8	.875	.875	.856
Marginal Totals		19	28	7	54			

category Marginal Agreement: .829

Cohen's Kappa: .809

630

688

Table 367

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 504    Grade 2  
Week 4    Day 1  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	15	0	0	1	0	16	.938	.889	.906
Pair	2	0	0	0	0	0	0	-----	0.000	-----
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	3	1	0	26	0	30	.867	.933	.723
None of the above	5	0	0	0	1	7	8	.875	.875	.856
Marginal Totals		18	1	0	28	7	54			

Category Marginal Agreement: .674

Cohen's Kappa: .813

421

Table 368

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20 Expert 90  
School 504 Grade 2  
Week 4 Day 1  
WDRSD

422

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	29	0	0	29	1.000	.935	1.000
Not used	2	2	15	0	17	.882	.941	.833
Other	3	0	1	7	8	.875	.875	.856
Marginal Totals		31	16	7	54			

Category Marginal Agreement: .917

Cohen's Kappa: .904

692

693

Table 369

Phase IV<sub>a</sub> - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 90  
School 504 Grade 2  
Week 4 Day 1  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	8	0	0	0	0	0	0	8	1.000	.800	1.000
Engaged - oral	2	0	0	1	0	0	0	0	1	0.000	1.000	-.019
Engaged - covert	3	2	0	9	0	2	0	0	13	.692	.591	.481
Not engaged - interim	4	0	0	0	0	1	0	0	1	0.000	.500	-.038
Not engaged - waiting	5	0	1	10	2	8	1	0	22	.364	.500	.201
Not engaged - off task	6	0	0	1	0	0	0	0	1	0.000	1.000	-.019
None of the above	7	0	0	1	0	0	0	7	8	.875	.875	.856
Marginal Totals		10	1	22	2	11	1	7	54			

Category Marginal Agreement: .752

Cohen's Kappa: .472



Table 370

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: REL95  
Data File: RELD3

Reliability on Interactions  
Observer 20    Expert 90  
School 504    Grade 2  
Week 4    Day 1  
WDRSD

Category chosen by Expert 90	Cat: #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7	8	9	10	11				
Target to Teacher	1	0	0	0	0	0	0	0	1	0	0	0	1	0,000	0,000	0,000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	0	0	0	0	0	0	0	2	0	0	6	8	,250	,800	,080
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
None of the above	11	0	0	1	0	0	0	0	7	0	0	37	45	,822	,956	,127
Marginal Totals		0	0	1	0	0	0	0	10	0	0	43	54			

695

696

Category Marginal Agreement: .439

Cohen's Kappa: .101

Table 371

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 504 Grade 2  
Week 15 Day 2  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Walt	1	1	0	0	0	0	0	0	1	1.000	1.000	1.000
Transition	2	0	4	0	0	0	0	0	4	1.000	1.000	1.000
Management	3	0	0	5	0	0	0	0	5	1.000	1.000	1.000
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	44	44	1.000	1.000	1.000
Marginal Totals		1	4	5	0	0	0	44	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 372

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 20 Expert 90  
 School 504 Grade 2  
 Week 15 Day 2  
 WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	11	0	0	11	1.000	.917	1.000
Other	2	1	32	0	33	.970	.970	.926
Neither	3	0	0	10	10	1.000	1.000	1.000
Marginal Totals		12	32	10	54			

Category Marginal Agreement: .962

Cohen's Kappa: .967

698

699

Table 373

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20 Expert 90  
School 504 Grade 2  
Week 15 Day 2  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	9	0	0	0	0	9	1.000	.900	1.000
Pair	2	1	1	0	0	0	2	.500	1.000	.481
Small group (3-8)	3	0	0	0	1	0	1	0.000	0.000	0.000
Large group (>8)	4	0	1	0	31	0	32	.969	1.000	.923
None of the above	5	0	0	0	0	10	10	1.000	1.000	1.000
Marginal Totals		10	2	0	32	10	54			

Category Marginal Agreement: .780

Cohen's Kappa: .905

700

427

701

Table 374

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20 Expert 90  
 School 504 Grade 2  
 Week 15 Day 2  
 WDRSD

428

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	12	0	0	12	1.000	1.000	1.000
Not used	2	0	32	0	32	1.000	1.000	1.000
Other	3	0	0	10	10	1.000	1.000	1.000
Marginal Totals		12	32	10	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

793

792

Table 375

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 504    Grade 2  
Week 15      Day 2  
WDRSD

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	4	0	0	4	1.000	1.000	1.000
Not used	2	0	40	0	40	1.000	1.000	1.000
Other	3	0	0	10	10	1.000	1.000	1.000
Marginal Totals		4	40	10	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 376

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

430

Reliability on Materials  
Observer 20    Expert 90  
School 504    Grade 2  
Week 15      Day 2  
WDRSD

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	4	0	0	4	1.000	1.000	1.000
Not used	2	0	40	0	40	1.000	1.000	1.000
Other	3	0	0	10	10	1.000	1.000	1.000
Marginal Totals		4	40	10	54			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

797

796

Table 377

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 90  
School 504 Grade 2  
Week 15 Day 2  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	2	0	0	0	0	0	0	2	1.000	.667	1.000
Engaged - oral	2	0	1	1	0	0	0	0	2	.500	.500	.491
Engaged - covert	3	1	0	13	0	1	3	0	18	.722	1.000	.583
Not engaged - interim	4	0	0	2	4	0	1	0	7	.571	.571	.537
Not engaged - waiting	5	0	0	1	0	7	0	0	8	.675	.800	.647
Not engaged - off task	6	0	0	1	0	2	4	0	7	.571	.675	.497
None of the above	7	0	0	0	0	0	0	10	10	1.000	1.000	1.000
Marginal Totals		3	1	18	4	10	8	10	54			

Category Marginal Agreement: .773

Cohen's Kappa: .697



Table 378

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Interactions  
Observer 20 Expert 90  
School 804 Grade 2  
Week 16 Day 2  
WDRSD

432

Date: 06-25-79  
Program: RELP95  
Data File: RELO3

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	1	0	0	0	0	0	0	0	0	0	1	1,000	1,000	1,000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	1	0	0	0	0	1	0,000	0,000	0,000
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Teacher to Group	8	0	0	0	0	0	0	0	10	0	0	3	13	.769	.867	.680	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	0	0	0	0	0	4	0	0	31	39	.897	.974	.684	
Marginal Totals		0	0	1	0	0	0	0	15	0	0	36	54				

709

Category Marginal Agreement: .710

Cohen's Kappa: .681

710

Table 379

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 20 Expert 90  
School 504 Grade 5  
Week 15 Day 2  
WORSO

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	0	0	0	0	0	0	0	-----	-----	-----
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	22	0	0	0	22	1.000	1.000	1.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	116	116	1.000	1.000	1.000
Marginal Totals		0	0	0	22	0	0	116	138			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 380

434

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 20    Expert 90  
School 504    Grade 5  
Week 15    Day 2  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	88	0	0	88	1.000	.946	1.000
Other	2	5	0	0	5	0.000	0.000	0.000
Neither	3	0	0	45	45	1.000	1.000	1.000
Marginal Totals		93	0	45	138			

Category Marginal Agreement: .649

Cohen's Kappa: .922

712

713

Table 381

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 20    Expert 90  
School 504    Grade 5  
Week 15      Day 2  
WDRSD

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	80	2	0	0	0	82	.976	.988	.941
Pair	2	1	9	0	0	0	10	.900	.909	.891
Small Group (3-8)	3	0	0	1	0	0	1	1.000	1.000	1.000
Large Group (>8)	4	0	0	0	0	0	0	-----	-----	-----
None of the above	5	0	0	0	0	45	45	1.000	1.000	1.000
Marginal Totals		81	11	1	0	45	138			

Category Marginal Agreement: .974

Cohen's Kappa: .960

Table 382

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

436

Reliability on Materials  
Observer 20    Expert 90  
School 904    Grade 5  
Week 15    Day 2  
WDRSD

Material: Paper/pencil

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	37	5	0	42	.881	.894	.819
Not used	2	10	41	0	51	.804	.902	.706
Other	3	0	0	45	45	1.000	1.000	1.000
Marginal Totals		47	46	45	138			

716

Category Marginal Agreement: .932

717

Cohen's Kappa: .837

Table 383

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 20    Expert 90  
School 504    Grade 5  
Week 15    Day 2  
WORSD

Material: Printed material

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	60	11	0	71	.845	.873	.719
Not used	2	2	20	0	22	.909	.710	.883
Other	3	0	0	45	45	1.000	1.000	1.000
Marginal Totals		62	31	45	138			

Category Marginal Agreement: .861

Cohen's Kappa: .850

718

719

437

Table 384

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

438

Reliability on Materials  
Observer 20    Expert 90  
School 504    Grade 5  
Week 15    Day 2  
WDRSD

Material: Other

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	92	0	92	1.000	.989	1.000
Other	3	0	0	45	45	1.000	1.000	1.000
Marginal Totals		0	93	45	138			

720

721

Category Marginal Agreement: .563

Cohen's Kappa: .984

Table 385

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Materials  
 Observer 20    Expert 90  
 School 504    Grade 5  
 Week 15    Day 2  
 WDRSD

Materials Can't Tell

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	92	0	92	1.000	.989	1.000
Other	3	0	0	45	45	1.000	1.000	1.000
Marginal Totals		0	93	45	138			

Category Marginal Agreement: .663

Cohen's Kappa: .984



Table 386

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 20 Expert 90  
School 504 Grade 5  
Week 15 Day 2  
WDR5D

Category chosen by Expert 90	Cat. #	Category chosen by Observer 20							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	14	0	1	0	0	0	0	15	.933	.602	.921
Engaged - oral	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	3	3	43	3	0	0	0	52	.827	.846	.746
Not engaged - interim	4	3	0	0	7	0	0	0	10	.700	.909	.674
Not engaged - waiting	5	0	0	0	0	0	0	0	0	-----	-----	-----
Not engaged - off task	6	2	0	0	1	0	13	0	16	.813	.813	.793
None of the above	7	0	0	0	0	0	0	45	45	1.000	1.000	1.000
Marginal Totals		22	3	44	11	0	13	45	138			

Category Marginal Agreement: .708

Cohen's Kappa: .843

724

Table 387

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELO3

Reliability on Interactions  
Observer 20 Expert 90  
School 504 Grade 5  
Week 15 Day 2  
WDRSD

Category chosen by EXPERT 90	Cat. #	Category chosen by Observer 20											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000
Teacher to Target	5	1	0	0	0	0	0	0	0	0	0	0	1	0.000	0.000	0.000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Student to Target	7	0	0	1	0	0	0	0	0	0	0	1	2	0.000	0.000	0.000	
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.000	
None of the above	11	0	0	1	0	0	0	0	0	0	0	134	135	.993	1.000	.659	
Marginal Totals		1	0	2	0	0	0	0	0	0	0	135	135				

Category Marginal Agreement: .200

Cohen's Kappa: .326

725

726

441

Table 388

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30    Expert 80  
School 433    Grade 2  
Week 4    Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	2	0	0	0	0	0	2	1,000	.667	1,000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	0	0	0	0	0	-----	-----	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	1	0	0	0	0	51	52	.981	.981	.654
Marginal Totals		0	3	0	0	0	0	51	54			

Category Marginal Agreement: .824

Cohen's Kappa: .791

727

Table 389

Phase IV - IGE Evaluation Project  
 Descriptive Study - Spring 1978

Reliability on Pace  
 Observer 30 Expert 80  
 School 433 Grade 2  
 Week 4 Day 4  
 DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	1	0	0	1	1.000	.043	1.000
Other	2	22	28	1	51	.549	.549	.063
Neither	3	0	0	2	2	1.000	.667	1.000
Marginal Totals		23	28	3	54			

Category Marginal Agreement: .420

Cohen's Kappa: .149

Table 390

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

444

Reliability on Grouping  
Observer 30    Expert 80  
School 433    Grade 2  
Week 4        Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	1	0	0	0	0	1	1.000	.043	1.000
Pair	2	0	0	0	0	0	0	-----	-----	-----
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	22	0	0	28	1	51	.549	.549	.063
None of the above	5	0	0	0	0	2	2	1.000	.667	1.000
Marginal Totals		23	0	0	28	3	54			

731

730

Category Marginal Agreement: .420

Cohen's Kappa: .149

Table 391

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 433    Grade 2  
Week 4        Day 4  
DMP

Materials: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	51	0	1	52	.981	.981	.654
Not used	2	0	0	0	0	-----	-----	-----
Other	3	0	0	2	2	1.000	.667	1.000
Marginal Totals		51	0	3	54			

Category Marginal Agreement: .824

Cohen's Kappa: .791

732

445  
733

Table 392

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 433 Grade 2  
Week 4 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	15	0	1	0	0	1	0	17	.682	.944	.824
Engaged - oral	2	0	1	1	0	0	0	0	2	.500	.500	.491
Engaged - covert	3	2	0	8	0	7	3	1	21	.381	.571	.204
Not engaged - interim	4	1	0	0	2	0	0	0	3	.667	.667	.654
Not engaged - waiting	5	0	0	2	0	6	0	0	8	.750	.615	.671
Not engaged - off task	6	0	0	0	0	0	1	0	1	1.000	.200	1.000
None of the above	7	0	0	0	0	0	0	2	2	1.000	.667	1.000
Marginal Totals		18	1	12	2	13	5	3	54			

Category Marginal Agreement: .595

Cohen's Kappa: .541

734

Table 393

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELDR

Reliability on Interactions  
Observer 30 Expert 80  
School 433 Grade 2  
Week 4 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Tchr & Grp	4	0	0	0	1	0	0	0	0	0	0	1	2	.500	.500	.491	
Teacher to Target	5	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Group	8	0	0	0	0	0	0	0	5	0	0	7	12	.417	.583	.330	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	0	0	0	0	0	2	0	0	38	40	.950	.870	.663	
Marginal Totals		0	0	0	1	0	0	0	7	0	0	46	54				

735

Category Marginal Agreement: .651

Cohen's Kappa: .485

736

4



Table 394

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 30 Expert 80  
School 433 Grade 5  
Week 16 Day 2  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	2	0	0	0	0	2	4	.500	.500	.489
Management	3	0	0	0	0	0	0	1	1	0.000	0.000	0.000
Break	4	0	0	0	0	0	0	0	0	-----	0.000	-----
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	1	0	0	90	91	.989	.978	.648
Marginal Totals		0	2	0	1	0	0	93	96			

Category Marginal Agreement: .370

Cohen's Kappa: .488

737

Table 395

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 30 Expert 80  
School 433 Grade 5  
Week 16 Day 2  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	20	1	0	21	.952	1.000	.939
Other	2	0	69	1	70	.986	.972	.943
Neither	3	1	2	2	5	.400	.600	.381
Marginal Totals		21	72	3	96			

Category Marginal Agreement: .857

Cohen's Kappa: .871

Table 396

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

450

Reliability on Grouping  
Observer 30    Expert 80  
School 433    Grade 5  
Week 16      Day 2  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	19	0	0	0	0	19	1.000	.905	1.000
Pair	2	1	1	0	0	0	2	.500	.500	.495
Small Group (3-8)	3	0	0	1	0	1	2	.500	1.000	.489
Large Group (>8)	4	0	0	0	68	0	68	1.000	.986	1.000
None of the above	5	1	0	1	1	2	5	.400	.600	.381
Marginal Totals		21	1	2	69	3	96			

Category Marginal Agreement: .798

711

Cohen's Kappa: .883

710

Table 397

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 433    Grade 5  
Week 16    Day 2  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	40	1	0	41	.976	1.000	.957
Not used	2	0	49	1	50	.980	.962	.956
Other	3	1	2	2	5	.400	.600	.381
Marginal Totals		41	52	3	96			

Category Marginal Agreement: .854

Cohen's Kappa: .902

Table 398

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

452

Reliability on Materials  
Observer 30    Expert 80  
School 433    Grade 5  
Week 16    Day 2  
DMP

Material: Game

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	2	0	0	2	1.000	.667	1.000
Not used	2	0	88	1	89	.989	.989	.820
Other	3	1	2	2	5	.400	.600	.381
Marginal Totals		3	90	3	96			

745

Category Marginal Agreement: .752

Cohen's Kappa: .676

714

Table 399

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 30    Expert 80  
School 433    Grade 5  
Week 16      Day 2  
DMP

Material: Audio/visual aid

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	1	0	1	0.000	0.000	0.000
Not used	2	0	89	1	90	.989	.968	.644
Other	3	0	3	2	5	.400	.600	.381
Marginal Totals		0	93	3	96			

Category Marginal Agreement: .523

Cohen's Kappa: .422

453

Table 400

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

454

Reliability on Materials  
Observer 30    Expert 80  
School 433    Grade 5  
Week 16    Day 2  
DMP

Material: Other

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	0	0	0	0	-----	0.000	-----
Not used	2	1	89	1	91	.978	.989	.473
Other	3	0	3	2	5	.400	.600	.381
Marginal Totals		1	92	3	96			

71)

Category Marginal Agreement: .530

Cohen's Kappa: .421

Table 401

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 30 Expert 80  
School 433 Grade 5  
Week 16 Day 2  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	11	0	1	0	0	0	0	12	.917	.750	.900
Engaged - oral	2	0	1	0	0	0	0	0	1	1.000	.250	1.000
Engaged - covert	3	4	1	37	0	2	2	1	47	.787	.936	.607
Not engaged - interim	4	0	1	1	3	0	0	0	5	.600	1.000	.578
Not engaged - waiting	5	0	0	4	0	14	0	0	18	.778	1.000	.26
Not engaged - off task	6	1	1	1	0	1	4	0	8	.500	.750	.467
None of the above	7	0	0	0	2	1	0	2	5	.400	.600	.381
Marginal Totals		16	4	44	5	18	6	3	96			

Category Marginal Agreement: .755

Cohen's Kappa: .648

750



Table 402

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD2

Reliability on Interactions  
Observer 30 Expert 80  
School 433 Grade 5  
Week 16 Day 2  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 30											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Other Adult	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----
Target to Student	3	0	0	2	0	0	0	0	0	0	0	0	2	1,000	.400	1,000	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	-----	0,000	-----	
Teacher to Target	5	0	0	0	1	0	0	0	0	0	0	0	1	0,000	0,000	0,000	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Target	7	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Teacher to Group	8	0	0	0	0	0	0	0	18	0	0	9	27	.667	.815	.568	
Other Adult to Group	9	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	-----	-----	-----	
None of the above	11	0	0	3	0	0	0	0	4	0	0	59	66	.854	.971	.636	
Marginal Totals		0	0	5	1	0	0	0	22	0	0	68	96				

Category Marginal Agreement: .437

Cohen's Kappa: .606

907

752

Table 403

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on General Content  
Observer 40 Expert 80  
School 440 Grade 5  
Week 4 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Wait	1	0	0	0	0	0	0	0	0	-----	-----	-----
Transition	2	0	0	0	0	0	0	0	0	1.000	1.000	1.000
Management	3	0	0	0	0	0	0	0	0	-----	-----	-----
Break	4	0	0	0	1	0	0	0	1	1.000	1.000	1.000
Nonacademic	5	0	0	0	0	0	0	0	0	-----	-----	-----
Other Academic	6	0	0	0	0	0	0	0	0	-----	-----	-----
None of the Above	7	0	0	0	0	0	0	87	87	1.000	1.000	1.000
Marginal Totals		0	0	0	1	0	0	87	96			

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 404

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Pace  
Observer 40 - Expert 80  
School 440 Grade 5  
Week 4 Day 4  
DMP

458

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Self	1	76	1	0	77	.987	.987	.938
Other	2	0	10	0	10	1.000	.909	1.000
Neither	3	0	0	9	9	1.000	1.000	1.000
Marginal Totals		76	11	9	96			

Category Marginal Agreement: .955

Cohen's Kappa: .970

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Table 405

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Grouping  
Observer 40 Expert 80  
School 440 Grade 5  
Week 4 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40					Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5				
Individual	1	76	0	0	1	0	77	.987	.987	.938
Pair	2	0	0	0	0	0	0	-----	-----	-----
Small Group (3-8)	3	0	0	0	0	0	0	-----	-----	-----
Large Group (>8)	4	0	0	0	10	0	10	1.000	.909	1.000
None of the above	5	0	0	0	0	9	9	1.000	1.000	1.000
Marginal Totals		76	0	0	11	9	96			

Category Marginal Agreement: .945

Cohen's Kappa: .970

756

757

Table 406

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

460

Reliability on Materials  
Observer 40    Expert 80  
School 440    Grade 5  
Week 4    Day 4  
DMP

Material: Paper/pencil

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	71	2	0	73	.973	.948	.862
Not used	2	6	8	0	14	.571	.714	.522
Other	3	0	0	9	9	1.000	1.000	1.000
Marginal Totals		77	10	9	96			

Category Marginal Agreement: .887

Cohen's Kappa: .772

75.1

75.5

Table 407

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Materials  
Observer 40    Expert 80  
School 440    Grade 5  
Week 4    Day 4  
DMP

Material: Printed material

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	17	0	0	17	1.000	.944	1.000
Not used	2	1	69	0	70	.986	.986	.949
Other	3	0	0	9	9	1.000	1.000	1.000
Marginal Totals		18	69	9	96			

Category Marginal Agreement: .977

Cohen's Kappa: .976

Table 408

Phase IV - IGE Evaluation Project  
Descriptive Study - Spring 1978

462

Reliability on Materials  
Observer 40 Expert 80  
School 440 Grade 5  
Week 4 Day 4  
DMP

Material: Other

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40			Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3				
Used	1	1	0	0	1	1.000	1.000	1.000
Not used	2	0	86	0	86	1.000	1.000	1.000
Other	3	0	0	9	9	1.000	1.000	1.000
Marginal Totals		1	86	9	96			

763

762

Category Marginal Agreement: 1.000

Cohen's Kappa: 1.000

Table 409

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Reliability on Learner Moves  
Observer 40 Expert 80  
School 440 Grade 5  
Week 4 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40							Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa
		1	2	3	4	5	6	7				
Engaged - written	1	32	1	0	0	1	0	0	34	.941	.791	.893
Engaged - orgl	2	0	0	0	0	0	0	0	0	-----	0.000	-----
Engaged - covert	3	8	1	10	3	2	2	0	26	.385	.385	.313
Not engaged - interim	4	0	0	0	1	1	0	0	2	.500	.500	.478
Not engaged - waiting	5	0	0	0	0	6	0	0	6	1.000	.462	1.000
Not engaged - off task	6	3	0	0	0	3	13	0	19	.684	.789	.626
None of the above	7	0	0	0	0	0	0	9	9	1.000	1.000	1.000
Marginal Totals		43	2	10	4	13	15	9	96			

Category Marginal Agreement: .561

Cohen's Kappa: .659

764



Table 410

Phase IV - IOE Evaluation Project  
Descriptive Study - Spring 1978

Date: 06-25-79  
Program: RELP95  
Data File: RELD2

Reliability on Interactions  
Observer 40 Expert 80  
School 440 Grade 5  
Week 4 Day 4  
DMP

Category chosen by Expert 80	Cat. #	Category chosen by Observer 40											Marginal Totals	Nominal Agreement	Marginal Agreement	Light's Extension of Kappa	
		1	2	3	4	5	6	7	8	9	10	11					
Target to Teacher	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0,000	0,000	0,000
Target to Other Adult	2	0	0	0	0	0	0	0	0	1	0	0	1	0,000	1,000	0,011	
Target to Student	3	0	0	0	0	0	0	0	0	0	0	2	2	0,000	0,000	0,000	
Target to Tchr & Grp	4	0	0	0	0	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
Teacher to Target	5	1	0	0	0	3	0	0	0	0	0	0	4	,750	,750	,742	
Other Adult to Target	6	0	0	0	0	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
Student to Target	7	0	0	0	0	0	0	0	0	0	0	1	1	0,000	0,000	0,000	
Teacher to Group	8	0	0	0	0	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
Other Adult to Group	9	0	1	0	0	0	0	0	0	2	0	1	4	,500	,750	,484	
Student to Group	10	0	0	0	0	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
None of the above	11	0	0	0	0	0	0	0	0	0	0	84	84	1,000	,955	1,000	
Marginal Totals		1	1	0	0	3	0	0	0	3	0	88	96				

785

786

Category Marginal Agreement: .494

Cohen's Kappa: .626

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