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The Relationship Between Grouping Format Used For Reading Instruction and Fourth Grade Students' Attitudes Toward Reading

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*THE RELATIONSHIP BETWEEN GROUPING FORMAT
USED FOR READING INSTRUCTION AND FOURTH
GRADE STUDENTS' ATTITUDES TOWARD READING*

THESIS

Submitted to the Graduate Committee of the
Department of Education and Human Development

State University of New York

College at Brockport

In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Education

by

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ABSTRACT

The purpose of this study was to compare the reading attitude scores of fourth grade students who are grouped homogeneously for reading instruction to those who are grouped heterogeneously. The null hypothesis stated that there would be no statistically significant differences between the mean reading attitude scores of students from the homogeneous or heterogeneous groups on the Elementary Reading Attitude Survey.

The subjects were ninety-six fourth grade students from two different suburban area school districts located in western New York. Heterogeneous grouping was used for reading instruction in one school district while homogeneous grouping was used in the other district. Both school districts had been previously using their current instructional programs for reading, K - 4 grades.

During the beginning of the third quarter of the 1997-1998 school year, teachers of each classroom administered the Elementary Reading Attitude Survey to their students in accordance with the directions for administration given by the survey developers. These surveys were anonymously completed by the students and returned to the researcher by each teacher. Students were told that only the researcher would see their surveys.

The researcher used a t test of independent means to analyze and compare results of the homogeneous reading group and of the heterogeneous reading group. The results showed that there was a significant difference between the mean reading attitude scores of the homogeneous group and the mean attitude scores of the heterogeneous group. The null hypothesis for this study had been rejected.

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CHAPTER I

Statement of the Problem

Some children are more successful at learning to read than others. Understanding the reasons for this difference in levels of success may help educators to develop and to implement reading programs that will facilitate higher levels of reading proficiency than presently exists. These differences might be due to grouping. A considerable amount of research has been conducted regarding the advantages and disadvantages of using homogeneous and heterogeneous grouping formats to teach reading.

Some of the research points out that students in homogeneous classroom settings are more likely to have lower self-concepts than students within heterogeneous settings because of the social disadvantages of being labeled. The low-ability students are at higher risk and tend to have more negative attitudes toward reading (Borko, 1986; Eder, 1983; Felmlee & Eder, 1983; Gamoran, 1986). Other researchers have found that students exhibit more positive attitudes toward reading when placed in homogeneous groups because they are less afraid to take risks (Filby & Barnett, 1982; Oddo, 1994).

More of the research conducted regarding the type of instructional grouping best suited for children learning to read seems to advocate the use of a heterogeneous format. The idea of being labeled in a "low" group versus a "high" group is not a factor in this case, therefore diminishing the negative social outcomes associated with ability grouping. Students also

have been shown to be aware of the advantages of a mixed group setting, of differences in learning styles and of the potential benefits often obtained from learning and working with one another (Elbaum, Schumm, & Vaughn, 1997; Flood, Lapp, Flood & Nagal, 1992; Vaughn, Schumm, Klingner & Saumell, 1995).

Recently, research on reading instruction has changed its focus from achievement to attitude (Stahl, McKenna & Pagnucco, 1994). In the past, educators and researchers seemed to have been more concerned with student performance and achievement rather than attitude. McKenna and Kear (1990) state that, "The student's attitude toward reading is a central factor affecting reading performance" (p. 626). Therefore, it is essential that educators develop a clear understanding of how attitude can affect students' self-concept, learning and performance; and how attitude is influenced, in part, by the type of grouping format used for reading instruction. It's important to provide students with the best possible learning environment that will not only stimulate their minds but also their desire to learn.

PURPOSE

The purpose of this study was to compare the reading attitude scores of fourth grade students who are grouped homogeneously for reading instruction to those who are grouped heterogeneously.

NULL HYPOTHESIS

There will be no statistically significant differences between the mean reading attitude scores of fourth grade students from homogeneous or heterogeneous reading groups on the Elementary Reading Attitude Survey.

NEED FOR THE STUDY

McKenna, Stratton, Grindler and Jenkins (1995) indicate that the relationship of reading attitude and instructional practice is not well understood, although in recent years theorists have attempted to address this and related issues more fully. The focus of this research was to find out which format for reading instruction, homogeneous or heterogeneous grouping, is most likely to develop a positive attitude toward reading, as determined by students' answers on a reading attitude survey. "A major objective of any curriculum is to develop a positive attitude toward learning" (Kibby, 1977, p.13). "Educators should be aware of which methods are best for the students so that students will be interested in learning and in reading" (Oddo, 1994, p.3).

LIMITATIONS

Several limitations exist that could influence the validity and reliability of the results and conclusions found in this study. The sample itself is limited; only 92 students, primarily white and from one grade level. This makes it difficult to draw valid conclusions that can be generalized to a

larger sample that would be more representational of a typical fourth grade classroom in the United States.

It is unknown exactly how long each student participated in each type of instructional grouping format and to what extent this lack of information may or may not influence students' attitudes toward reading. The teachers' personal teaching styles and ways of interacting with their students is also unknown, which could affect the students' responses on the reading attitude surveys, regardless of grouping formats used for reading instruction.

Other measures of instructional effect on attitude and factors affecting attitude, such as gender, socioeconomic status, home environment and such were not considered or investigated. Lack of this type of information may hinder drawing accurate conclusions since they are based upon limited data.

CHAPTER II

REVIEW OF THE LITERATURE

PURPOSE

The purpose of this study was to compare the reading attitude scores of fourth grade students who are grouped homogeneously for reading instruction to those who are grouped heterogeneously.

Overview

Aside from the question of whether pupils can read rests a question with an even more elusive answer: Will pupils read? Certainly, how students feel about reading is as important as whether they are able to read, for, as is true for most abilities, the value of reading ability lies in its use rather than its possession. (Estes, 1971, p. 135)

At different times throughout the history of reading instruction, various sorts of instructional groups have been considered good and effective. The U.S. moved education from the home to a multi-grade classroom setting to one-grade per classroom. With the widespread development and use of achievement tests, classrooms became further divided into levels of ability. Since World War I, reading instruction has predominantly used a homogeneous grouping format (Flood, Lapp, Flood & Nagal, 1992).

Flood, Lapp, Flood and Nagal (1992) go on to say that, in the 1940's, "Ability grouping was viewed as good for the slow children and bad for the bright children" (p. 609). Despite the controversy surrounding this issue at that time, ability grouping had remained the most widely used grouping format through the 1980's. Flood and Lapp indicate from the results of one of their studies done in 1990 that 44% of teachers surveyed still perceived ability grouping as the best way to teach. Then, in the 1990's, reading instruction began to receive much more attention regarding the social effects of different instructional formats.

This long lasting debate regarding the methods in which children are taught reading still remains. Do they perform better within a homogeneous grouping format, where students are grouped according to ability, or within a heterogeneous grouping format? (Brungardt, 1994; Esposito, 1973; Filby & Barnett, 1982; Gamoran, 1986; Kibby, 1977; McKenna, Stratton, Grindler & Jenkins, 1995).

Reading Attitude

Several researchers point out that students in homogeneous classrooms exhibit lower self-concepts than students in heterogeneous classrooms (Borko, 1986; Eder, 1983; Felmlee & Eder, 1983; Gamoran, 1986). Since self-concepts of students in homogeneous classrooms seem to be generally lower than those in heterogeneous classrooms, will reading attitudes also be lower? (Oddo, 1994).

Worthy and Hoffman (1996) propose the idea that it may not be the ability grouping that affects students' ability as much as their attitude about their ability. "Teachers must consider the affective component of attitude. Children's attitudes have been positively correlated with success in reading tasks and self-concept, indicating that the development of positive attitude is also an important goal in teaching reading" (Borko, 1986, p. 84).

McKenna and Kear (1990) are in agreement with this statement and say, "The student's attitude toward reading is a central factor affecting reading performance" (p. 626).

Stahl, McKenna and Pagnucco (1994) indicate that recent research on reading instruction seems to represent a general shift of focus from achievement to attitude. They cite O'Flahaven, Gambrell, Guthrie, Stahl, Baumann and Alvermann (1992) in a survey conducted by the Universities of Georgia and Maryland which found that, "...research intended to increase motivation to read was consistently rated by teachers as more important than research intended to improve comprehension" (p. 177).

Results from a recent national survey on grade-school children's attitudes toward reading (McKenna, Kear & Ellsworth, 1995) suggest that social factors and expectations within the classroom environment do shape reading attitude over time. Their findings indicate that "...reading attitudes became more negative gradually, but steadily, throughout the elementary years, ending in relative indifference by grade six" (p. 935). The variance of attitude toward reading increased with age and between ability levels, with the most negative attitudes belonging to those students in lower

reading ability groups. Hiebert's (1983) study also supports the idea that children's attitudes toward reading and their reading group vary with the level of the group. A significant difference was found between the attitudes of sixth grade students from low and high ability groups, with the low ability groups expressing more negative feelings toward reading. Hiebert also agrees with McKenna, Kear and Ellsworth (1995) about the influence of social factors and expectations within the classroom. "Group membership seems to affect children's perceptions of one another as well as perceptions of themselves" (p. 232).

In a very recent study conducted by Elbaum, Schumm and Vaughn (1997), it is suggested that the manner in which students are grouped for instruction can influence reading attitude and achievement in a number of ways. "For example, students who are grouped homogeneously in a low-ability group may suffer from social stigmatization, low motivation and lowered student expectations for success" (p. 476). There may also be "...outside limits on what can occur during instruction" (p. 476). The students in the low-ability groups may have little chance to receive focused direct instruction in critical skill areas if the teacher uses only whole class instruction. Grouping formats can also affect the way students from different groups and the teacher interact.

Research seems to substantiate the idea that attitude and achievement are consistently linked and that attitude plays an extremely vital role in establishing a life-long habit of reading (Esposito, 1973;

Heathington & Alexander, 1978; Kibby, 1977; McKenna & Kear, 1990; Worthy & Hoffman, 1996).

Homogeneous Grouping

Elbaum, Schumm and Vaughn (1997) indicate in their study that those who advocate homogeneous grouping for reading instruction argue that it allows the teacher to focus on the needs of the poorer readers that benefit by direct instruction in reading skills. This grouping format also allows the more capable readers the opportunity to advance their own reading skills because they are spending less time helping and waiting for the lower level readers.

Filby and Barnett (1982) suggest that, when determining group format for instruction, it's important to consider the trade-offs for students' self-concepts, especially for the low achievers. On one hand, you may be able to avoid negative comparisons with others and provide students with work that can be accomplished successfully; while, on the other hand, grouping may hold students back because they lack peer models of desired performance in addition to possibly having lower expectations placed upon them.

In an earlier study conducted by Filby and Barnett, the results indicated that low-ability students would have more positive self-concepts in ability grouped classes than in classes with whole group instruction. Under heterogeneously grouped instruction, all the students know the hierarchy of who is where in reading ability as the students have more

opportunities to hear and observe others' reading performances. If low-ability students are aware of their position and think of themselves as low-ability, this may cause them to think less of themselves and decrease their motivation. Whereas; in classes that are homogeneously grouped, the low-ability students might be better able to maintain a more positive self-concept as readers because they are comparing performances of one another in the group versus the entire class. This notion is not entirely consistent with other research findings.

Elbaum, Schumm and Vaughn (1997) show a difference of opinion from research discussed in their study. They state that, "In classrooms in which all students use the same book for reading, differences in reading achievement are less apparent; consequently, lower achieving students are less likely to develop a fixed conception of themselves as poor readers." (p. 477).

Some of the research done on homogeneous grouping has looked at its impact on student attentiveness. Felmlee and Eder (1983) conducted a study of the contextual effects in a first grade classroom by looking at the extent to which students' ability grouping assignments affect their level of inattentiveness. They found that grouping by ability level had the greatest negative effect on student attentiveness. Students in low groups became inattentive at more than three times the rate of the high group students. It was suggested that this was due more to group assignment rather than to individual differences among the students.

In line with other studies of grouping and student attentiveness, Felmlee and Eder (1983) cite Filby, Barnett and Bossert (1982) which found that "...high ability students were more attentive in all classrooms but that the variance in attentiveness was greater in grouped classrooms than in non-grouped ones" (p. 85). Results of these studies indicate the strong impact that learning environment and in particular, grouping format, have on student behavior.

As mentioned earlier in this review, children's attitudes toward reading and also toward their reading groups vary with the level of the group. Hiebert (1983) examined the effects of ability grouping on students' reading development. She cites Levenson (1972), who, when examining the feelings and attitudes toward ability grouping of sixth grade students, found that students from the low ability group exhibited significantly more negative feelings toward reading than the students from the high ability group. Some of the common feelings stated by these students from all groups included:

...a feeling that they could read more books if they were not in a reading group, a desire for reading more on their own, a desire for more opportunities to read silently rather than orally, and a preference for choosing books themselves rather than receiving books as a group. (p 243)

It has been demonstrated, through research, that the status of groups influences the attitudes of an individual and that status within a group has been found to affect self-esteem (Kibby, 1977). He later states,

The purpose of homogeneous grouping is to maximize cognitive gains by grouping children on the basis of their intellectual and academic abilities. Sound as the purpose may be, it is necessary to be aware of the affective consequences of such grouping procedures. (p. 20)

Research seems to support the notion that ability groups are negative for students in low groups because they remain labeled, receive differential treatment over time, and that the gap between low and high ability groups seems to widen (Flood, Lapp, Flood & Nagal, 1992).

Heterogeneous Grouping

Until the 90's, it seemed that far less research had been conducted that addressed students' attitudinal outcomes when placed in heterogeneous grouping for reading instruction than had been done in the area of homogeneous grouping in the past forty years. While some of the research suggests that students in homogeneous classrooms have lower self-concepts, it doesn't necessarily indicate that students in heterogeneous classrooms always have higher self-concepts (Oddo, 1994).

In research conducted by Filby and Barnett (1982), it was found that second and fifth grade students in heterogeneous groups had lower self-concepts than students placed in homogeneous groups. However, much of the other research does not support Filby and Barnett's findings.

Given the lack of a research base demonstrating academic advantages for students who receive reading instruction in same-ability groups and given the negative social outcomes of ability grouping, reading specialists have urged teachers to use more heterogeneous grouping formats for reading instruction. (Elbaum, Schumm & Vaughn, 1997, p. 476)

In two studies aimed at finding out students' perceptions of grouping formats for instruction, both groups of students, ranging from elementary to high school level, showed slightly higher preferences for mixed-ability grouping over same-ability grouping. (Elbaum, Schumm & Vaughn, 1997; Vaughn, Schumm, Klingner & Saumell, 1995). According to Elbaum et al., how the good readers fared in mixed-ability groups did not seem to be a big concern for the students. Students reported, "...that mixed-ability formats provide poorer readers with help from better readers and an opportunity for all students to cooperate" (p. 487). Similar statements were made by the students in the study conducted by Vaughn et al., "...higher kids can help lower kids" and "...you learn more when you explain it to others" (p. 240). Both of these studies seem to show that students are aware of different needs and that grouping practices should reflect students' learning styles.

When students are instructed in a heterogeneous classroom, it is not to say that various grouping formats cannot be utilized. Whole class instruction is only one form of heterogeneous grouping. Flood, Lapp, Flood and Nagal (1992) suggest the use of flexible grouping patterns for reading instruction. Different patterns might include working in pairs or small groups for a specific purpose or to read to one another, in cooperative

groups to complete an assignment or even working individually with the teacher. Students may be grouped according to such things as skill needs, common interests, similar work habits and so on. "Flexible grouping practices can enhance the teaching and learning of reading. Through flexible grouping, each child's needs can be met and each child can develop an understanding of the relations among the language arts" (p. 611). Previous research seems to support this type of instructional method as a way to help children develop positive attitudes toward reading.

Not all the research done on heterogeneous versus homogeneous grouping strongly supports the notion that students exhibit more positive attitudes toward reading when heterogeneously grouped. In an article written by Stahl, McKenna and Pagnucco (1994) on the effects of whole language instruction in the early elementary grades, various studies measured attitude toward reading between students in homogeneous classrooms using a traditional basal approach and those in heterogeneous classrooms using a whole language approach. Of seventeen studies that used attitude surveys, fourteen of them found no significant differences in students' attitudes between the two instructional approaches.

McKenna, Stratton, Grindler and Jenkins (1995) carried out three studies to compare the effects of whole language practice versus traditional basal instruction on children's reading attitudes. Their conclusions, consistent with those stated in Stahl et al., report that no strong evidence exists that a whole language approach offers much greater advantages over traditional instruction in helping to build students' positive attitudes toward

reading. McKenna, Stratton, Grindler and Jenkins (1995) feel that "The importance of how individual teachers translate their philosophies into practice has been underscored" (p. 41). They describe effective instructional practices as those that are balanced and reflect an eclectic approach.

There is little question that teachers make the difference in what happens from one classroom to the next. Differences in students' attitudes toward reading may reflect the nature of the teacher's instruction rather than a particular program or approach (McKenna, Stratton, Grindler & Jenkins, 1995; Stahl, McKenna & Pagnucco, 1994). "...it seems that it is what the individual teacher does that affects instruction, not his or her belief" (Stahl et al., p. 181).

CHAPTER III

Design of the Study

PURPOSE

The purpose of this study was to compare the reading attitude scores of fourth grade students who are grouped homogeneously for reading instruction to those who are grouped heterogeneously.

NULL HYPOTHESIS

There will be no statistically significant differences between the mean reading attitude scores of fourth grade students from homogeneous or heterogeneous groups on the Elementary Reading Attitude Survey.

METHODOLOGY

Subjects

Forty-eight fourth grade students from two classrooms in which homogeneous grouping is utilized for reading instruction were used for this study. These students are within one school district.

Forty-four fourth grade students from two classrooms in which heterogeneous grouping is utilized for reading instruction were also used. These students are within a different school district.

Both school districts are in suburban areas located in western New York.

Materials

The Elementary Reading Attitude Survey (ERAS) 1990 (see Appendix A), was administered to 92 fourth grade students. This survey has been found to have a very high level of reliability for grades one through six.

Procedure

The ERAS was administered to 92 fourth grade students from four different classrooms. Students from two of these classrooms, located in the same school district, received reading instruction within a homogeneous grouping format for at least the past two years. The other group of students from two classrooms in a different school district represented those accustomed to a heterogeneous setting for reading instruction since starting in that particular school district.

The students from the two homogeneously grouped classrooms, as indicated by their teachers, represented a mix of reading ability levels, with approximately 20% falling below grade level, 20% at above grade level and the remaining 60% at grade level. Students from the heterogeneously grouped classrooms fell within the same reading level categories, representing a similar mix of reading abilities, as indicated by their classroom teachers.

Each classroom teacher was given detailed written and verbal instructions on how to administer the survey prior to the day of administration. Students were reminded to be honest with their answers and that their teachers would not be seeing the responses made. Students were

instructed not to put their names on these surveys. It took approximately ten minutes for students to complete. The teachers sent the completed surveys to the researcher via self-addressed envelope provided to them. The researcher reviewed the completed surveys from each group and scored them.

ANALYSIS

Appropriate statistical analysis was used to collate quantitative data. Data were subjected to a t test of independent means.

2

CHAPTER IV

Analysis of Data

PURPOSE

The purpose of this study was to compare the reading attitude scores of fourth grade students who are grouped homogeneously for reading instruction to those who are grouped heterogeneously.

STATISTICAL ANALYSIS

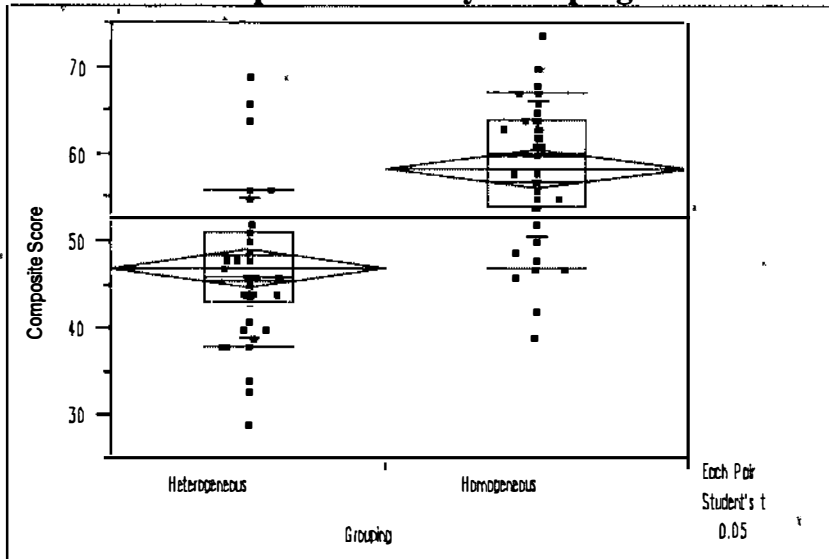
The null hypothesis of this study was that there would be no statistically significant differences between the mean reading attitude scores of fourth grade students from homogeneous or heterogeneous reading groups on the Elementary Reading Attitude Survey.

The data collected for this study were established in terms of total composite reading attitude scores that resulted from the combination of two sets of scores obtained from the ERAS that measured recreational and academic attitude toward reading. The statistical significance of the null hypothesis proposed by the researcher was evaluated by means of an independent t test and a Welch Anova.

FINDINGS AND INTERPRETATIONS

Figures 1 and 2, along with tables, summarize the statistical findings of the analyses (JMP software, 1989-1997). Comparisons of the mean values of composite reading attitude scores were made between the homogeneously and heterogeneously grouped students (Figure 1) and among the four classrooms (Figure 2). As part of a post hoc analysis, a comparison between the 1989 national distribution of composite percentiles done by McKenna and Kear (1990) and the current study distributions of composite percentiles was also made (Figures 3 & 4).

Figure 1: Composite Score By Grouping



Oneway Anova

(t test)

Estimate	Difference	t test	DF	Prob> t
	-11.3163	-6.806	90	<.0001
Std Error	1.6626			
Lower 95%	-14.6194			
Upper 95%	-8.0132			

Assuming equal variances

Means for Oneway Anova

Level	Number	Mean	Std Error	
Heterogeneous	44	46.9545	1.2009	
Homogeneous	48	58.2708	1.1498	

Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
Heterogeneous	44	8.112450	5.995868	5.909091
Homogeneous	48	7.829947	6.384549	6.312500

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	0.0504	1	90	0.8229
Brown-Forsythe	0.1375	1	90	0.7117
Levene	0.1436	1	90	0.7056
Bartlett	0.0558	1	?	0.8132

Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F	t test
46.1809	1	88.651	<.0001	6.7957

The mean reading attitude score for the homogeneously grouped classes was 58.27 and the mean reading attitude score for the heterogeneously grouped classes was 46.95.

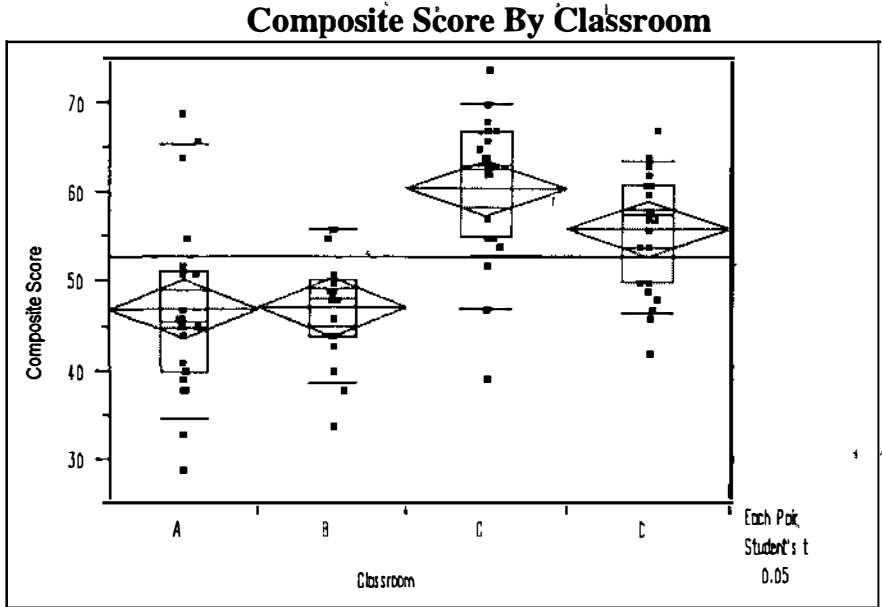
As shown in the box plots, the distributions are very different from each other. The diamonds reveal mean values and their 95% confidence intervals. It is clear that the mean values are significantly different between groupings.

The t-test, with $\alpha = 0.05$, $t = -6.80$, was significant ($p < 0.0001$), for a difference in the means between groupings. Since this t test is only valid if the variances are equal, four separate tests for equality of variance were performed. Two of the tests suggested that we can only say, with 92% confidence, that the variances were not different. Since there is some margin of error, a non-parametric test of the means was performed. The Welch Anova test yielded the same results as the original t-test: $t = 6.80$, $p < 0.0001$.

Post Hoc Analysis

Upon consideration of the data presented in Figure 1, it became of interest to look at the differences between classrooms within each grouping that might exist among the four classrooms. A comparison of composite score percentiles between the 1989 national distribution and the current distribution obtained during this study was also investigated.

Figure 2:



Oneway Anova

Means for Oneway Anova

Level	Number	Mean	Std Error
A	22	46.8182	1.6812
B	22	47.0909	1.6812
C	24	60.5000	1.6096
D	24	56.0417	1.6096

Std Error uses a pooled estimate of error variance

Means Comparisons

Dif=Mean[i]-Mean[j]	C	D	B	A
C	0.0000	4.4583	13.4091	13.6818
D	-4.4583	0.0000	8.9508	9.2235
B	-13.4091	-8.9508	0.0000	0.2727
A	-13.6818	-9.2235	-0.2727	0.0000

Alpha = 0.05

Comparisons for each pair using Student's t, $t = 1.98730$

Abs(Dif)-LSD	C	D	B	A
C	-4.52383	-0.06550	8.78359	9.05632
D	-0.06550	-4.52383	4.32526	4.59798
B	8.78359	4.32526	-4.72499	-4.45226
A	9.05632	4.59798	-4.45226	-4.72499

Positive values show pairs of means that are significantly different.

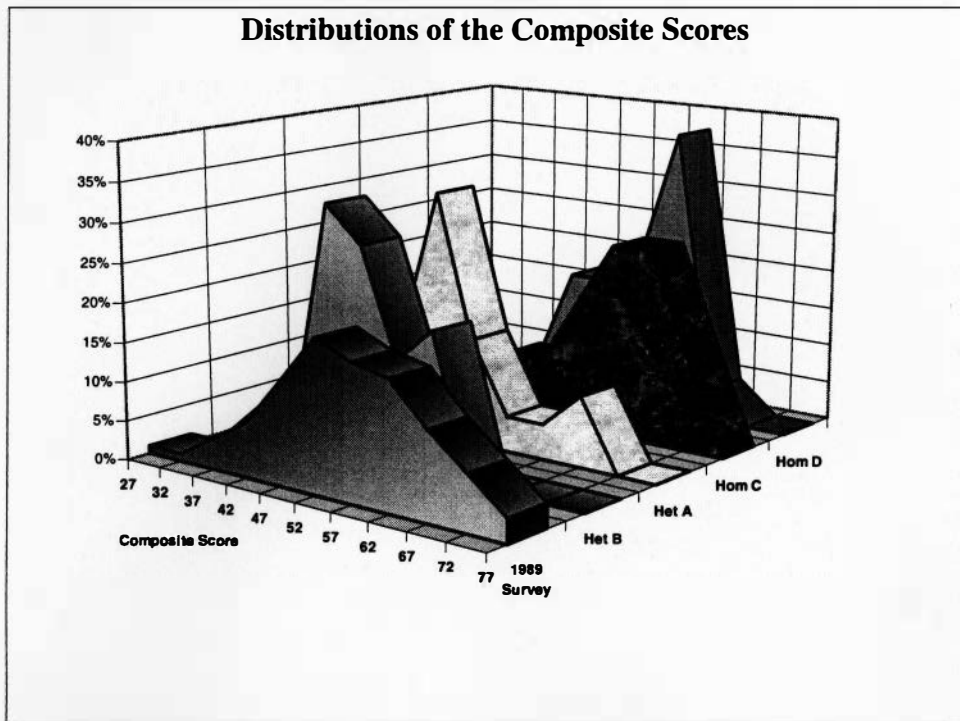
Two classrooms were surveyed within each grouping format. With 90% confidence, the mean values for composite scores in the heterogeneous classrooms were not different from each other; class A, $m = 46.82$; class B, $m = 47.10$. A difference was found in the mean values of composite reading attitude scores between the classrooms that were grouped homogeneously; class C, $m = 60.50$; class D, $m = 56.04$.

When comparisons were made between the 1989 national distribution of composite score percentiles obtained on the ERAS with the score percentiles obtained for this study, large apparent differences were found.

Figure 3:

Composite Score	Het A	Het B	Hom C	Hom D	1989 Survey
27	5%	0%	0%	0%	1%
32	5%	5%	0%	0%	1%
37	14%	5%	4%	0%	4%
42	14%	32%	0%	4%	7%
47	32%	27%	8%	17%	13%
52	14%	14%	8%	17%	19%
57	5%	18%	17%	21%	17%
62	5%	0%	25%	38%	16%
67	9%	0%	25%	4%	11%
72	0%	0%	13%	0%	7%
77	0%	0%	0%	0%	3%

Figure 4:



The distribution chart shows that the composite scores of students from the two heterogeneously grouped classrooms plot lower than the national average of composite score percentiles obtained in 1989, suggesting that these students demonstrated less positive attitudes toward reading than shown for the national average.

For the students who were grouped homogeneously, most of their composite scores plot higher than the national average of composite score percentiles, suggesting that these students demonstrated more positive attitudes toward reading than the national average indicated.

SUMMARY

From the data presented in the first two graphs, it is clear that significant differences in students' attitudes toward reading do exist between the homogeneous and heterogeneous groupings; and between classrooms of the homogeneous group.

It is also evident that large apparent differences exist between the distributions of composite score percentiles obtained from the ERAS for this study and the national average of percentiles.

With 95% confidence, significant differences existed. Therefore, this study has rejected the null hypothesis. There was a statistically significant difference between the mean reading attitude scores of the homogeneously grouped and the heterogeneously grouped fourth grade students.

CHAPTER V

Conclusions and Implications

CONCLUSIONS

The present study sought to compare the reading attitude scores of fourth grade students who were grouped homogeneously for reading instruction to those who were grouped heterogeneously. The results of this study indicated a statistically significant difference between the reading attitude scores of these two groups.

An interesting finding was that the reading attitude scores of the homogeneously grouped students were significantly higher than those of the heterogeneously grouped students.

Within the post hoc analysis, it is shown that the scores of the homogeneously grouped students indicated a higher composite score percentile when compared to the 1989 national average; whereas the scores of the heterogeneously grouped students suggested a lower composite score percentile compared to the 1989 national average.

These findings contradict a majority of the research reviewed for this study which indicated that homogeneously grouped students' attitudes toward reading are less positive than heterogeneously grouped students'. It also supported some of the research conducted in the past, as well as in recent years, that suggests that the attitudes of homogeneously grouped students are more positive than those of heterogeneously grouped students. Why do the data obtained from this study support the latter conclusion?

There were several variables that may have influenced the nature of the results of this study. It is difficult to be sure of the reasons for the obtained results because of the limited amount of background information available for this study.

When looking at the differences in the students' reading attitude scores, one might wonder what factors may have influenced their attitudes toward reading. Other than the fact that each school district has maintained the same instructional grouping format within their reading programs for the past four years, it is unknown to the researcher what the reading curriculum was for the primary grades at each school district, how the individual reading programs were implemented or what differences in teaching styles may have existed. The standards of success in reading or the expectations placed upon students for learning to read may have been different between the two districts. Were the students that demonstrated more positive attitudes toward reading expected to reach a higher level of success in reading, or perhaps given more incentives that would help to increase their motivation to read, therefore increasing the likelihood of developing a better attitude? Much information regarding these factors is needed to draw more accurate conclusions about the effects of these factors on students' attitudes toward reading.

CLASSROOM IMPLICATIONS

As previously suggested by McKenna, Stratton, Grindler and Jenkins (1995), it is not necessarily the type of grouping, approach or particular program used for reading instruction that affects students' attitudes toward reading, but the nature of the teacher's instruction that makes the difference.

With this in mind, it is essential that educators remain keenly aware of this notion when implementing a reading program aimed at promoting a positive attitude toward reading. Administrators may need to focus more closely on how teachers interact with students during reading instruction in order to provide teachers with valuable feedback on how to meet students' needs more effectively.

Teachers need to be aware of the dynamics that exist between themselves and their students, of how their students feel toward reading and of the type of classroom environment that provides the most motivation and encouragement to their students. If students seem to exhibit poor attitudes toward reading, teachers should take steps toward helping those students develop more positive attitudes. These steps may include making changes in how the teacher interacts with students as well as making changes in the way that the reading program is implemented. In the same respect, it is equally important to help students who already demonstrate positive attitudes toward reading to maintain these healthy attitudes.

The results of this study seem to indicate that there were some positive things happening in the homogeneously grouped classrooms. Results did not seem to suggest the use of heterogeneous grouping;

although I do believe that the use of this grouping format can be included in effective instructional practices that are balanced and that reflect an eclectic approach.

As suggested by Flood, Lapp, Flood and Nagal (1992), perhaps the use of "flex-grouping" should be strongly encouraged among teachers, so that all students are given opportunities to utilize their skills and strengths within a group of peers as well as learn skills and strategies from each other.

A more in depth investigation of how the students in the four classrooms were instructed could have provided more insight regarding the differences in the mean reading attitude scores of these students when comparing the two groupings.

SUGGESTIONS FOR FURTHER STUDY

The current study has much room for further investigation, review and analysis. As the study progressed, I felt a need for more data in order to come up with some viable answers to some unanswered questions.

In light of the research suggesting that teachers, rather than instructional approaches, act as a greater influence on attitude, a comparison of the teachers using the same instructional approaches would have been interesting. What were the two teachers of the homogeneously grouped students doing differently or the same during reading instruction?

Comparisons in teaching styles could also be made among the teachers of the two groupings. We could go even further back into the

primary grades of each school district to make comparisons between reading curriculums or among the teachers and how they implemented their reading programs.

It would also be of interest to find out from the students themselves what they think makes reading more interesting or fun; and to what extent would these comments reflect upon the nature of the teacher's interactions with the students? Do students tend to develop more long-lasting positive attitudes toward reading if they are instructed by teachers that establish a good rapport with them? Does this help students in learning to enjoy reading?

Another area to research further would be to look at the differences in reading attitudes among students within similar reading-ability levels and within different reading-ability levels. These types of comparisons could be made among students within one grouping or among students from both groupings. It would have been interesting to know from which reading-ability levels the students who scored high or low on the survey came from; and to compare reading attitude scores of same level students between the homogeneous and heterogeneous groupings.

For this study, students from only two classrooms within two separate school districts were used as subjects. It would be of greater value to increase the sample size considerably, include other elementary grade levels and use several different school districts in order to collect a greater amount of data. This would enable the researcher to either support or

contradict the results generated by the data from this study; or produce results different from those already found in the present study.

SUMMARY

More research needs to be conducted on the relationship between reading instruction and students' attitudes toward reading. Educators need to be aware of how students feel toward reading and which types of grouping practices provide students with the best possible environment for the development of positive attitudes toward reading. It is important that all teachers, not only reading teachers, gain insight into how they affect their students not only by what they teach, but by the way they teach and how they interact with their students during instruction.

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Appendix A

Elementary Reading Attitude Survey

Michael C. McKenna and Dennis J. Kear

Purpose

To provide a quick indication of student attitudes toward reading.

Administration

1. Reproduce the survey
2. Tell students that you wish to find out how they feel about reading. Emphasize that this is *not* a test and that there are no "right" or "wrong" answers. Encourage sincerity.
3. Distribute the survey forms and, if you wish to monitor the attitudes of specific students, ask them to write their names in the space at the top. Hold up a copy of the survey so that the students can see the first page. Point to the picture of Garfield at the far left of the first item. Ask the students to look at this same picture on their own survey form. Discuss with them the mood Garfield seems to be in (very happy). Then move to the next picture and again discuss Garfield's mood (this time, a little happy). In the same way, move to the third and fourth pictures and talk about Garfield's moods—a little upset and very upset. It is helpful to point out the position of Garfield's *mouth*, especially in the middle two figures.
4. Explain that together you will read some statements about reading and that the students should think about how they feel about each statement. They should then circle the picture of Garfield that is closest to their own feelings. (Emphasize that the students should respond according to their own feelings, not as Garfield might respond!) Read each item aloud slowly and distinctly; then read it a second time while students are thinking. Be sure to read the item *number* and to remind students of page numbers when new pages are reached.

Scoring and Interpretation

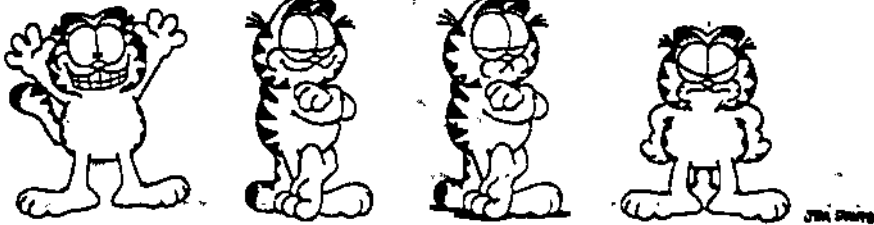
1. To score the survey, count four points for each leftmost (happiest) Garfield circle, three for each slightly smiling Garfield, two for each mildly upset Garfield, and one point for each very upset (rightmost) Garfield. Three scores for each student can be obtained: the total for the first 10 items, the total for the second 10, and a composite total. The first half of the survey relates to attitude toward recreational reading; the second half relates to attitude toward academic aspects of reading.
2. You can interpret scores in two ways. One is to note informally where the score falls in regard to the four points of the scale. A total score of 50, for example, would fall about midway on the scale, between the slightly happy and slightly upset figures, therefore indicating a relatively indifferent overall attitude toward reading. The other approach is more formal. It involves converting the raw scores into percentile ranks by means of the table. Be sure to use the norms for the right grade level and to note the column headings (Rec = recreational reading, Aca = academic reading, Tot = total score). If you wish to determine the average percentile rank for your class, average the raw scores first; then use the table to locate the percentile rank corresponding to the raw score mean. Percentile ranks cannot be averaged directly.

Elementary Reading Attitude Survey

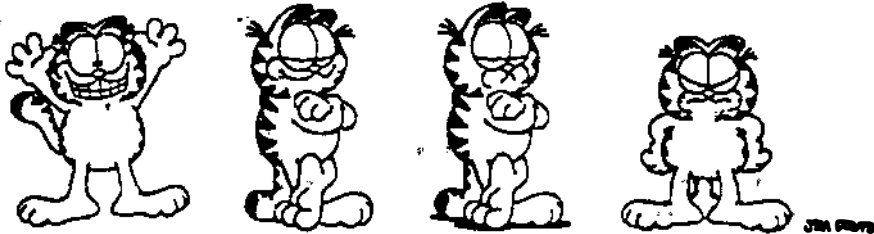
School _____ Grade _____ Name _____

GARFIELD: © 1978 United Feature Syndicate, Inc.

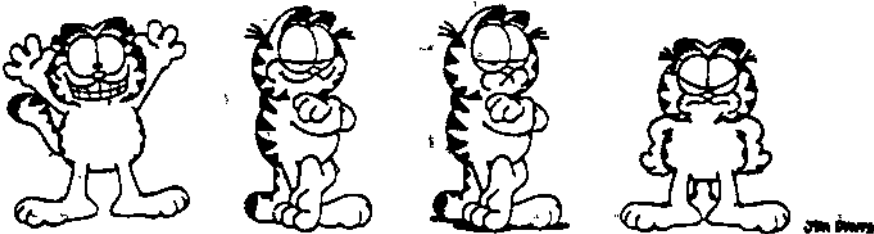
1. How do you feel when you read a book on a rainy Saturday?



2. How do you feel when you read a book in a school during free time?



3. How do you feel about reading for fun at home?

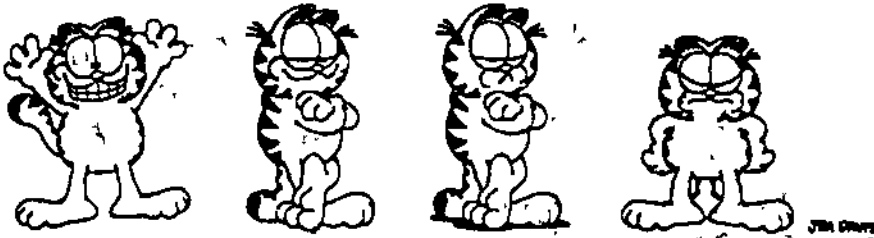


4. How do you feel about getting a book for a present?



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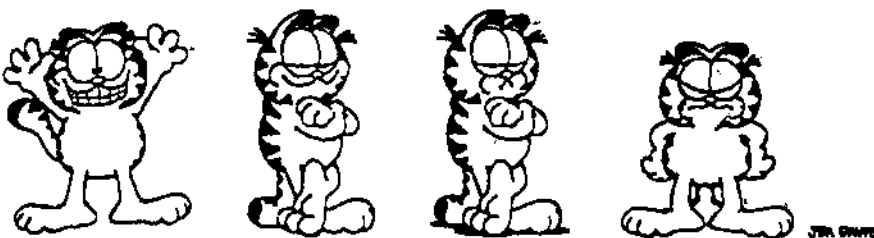
5. How do you feel about spending free time reading?



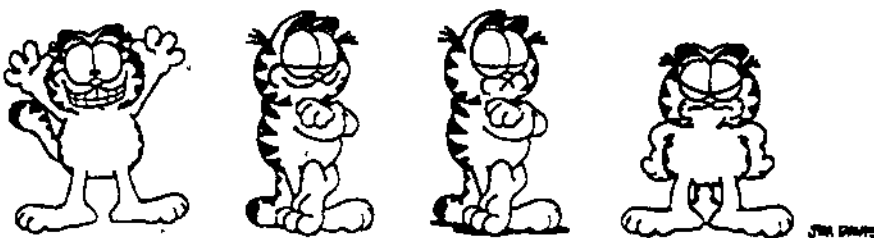
6. How do you feel about starting a new book?



7. How do you feel about reading during summer?

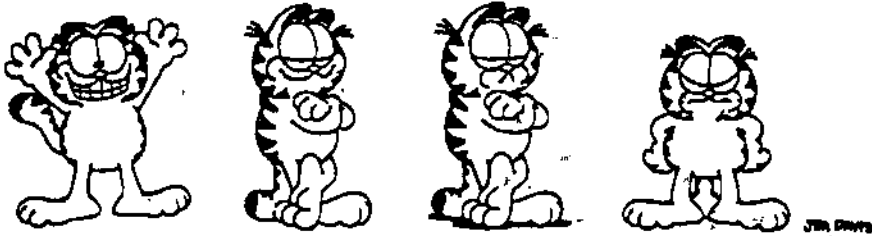


8. How do you feel about reading instead of playing?

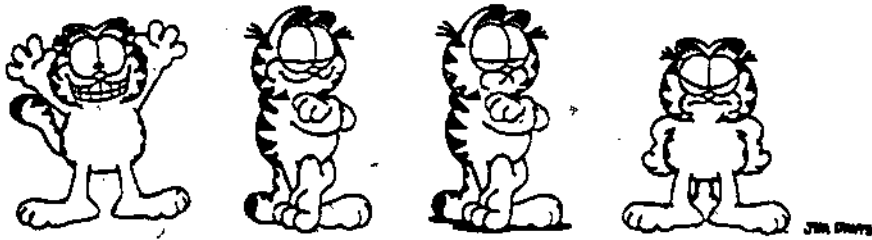


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9. How do you feel about going to a bookstore?



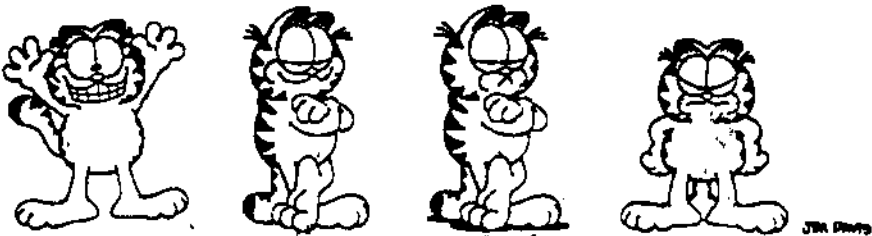
10. How do you feel about reading different kinds of books?



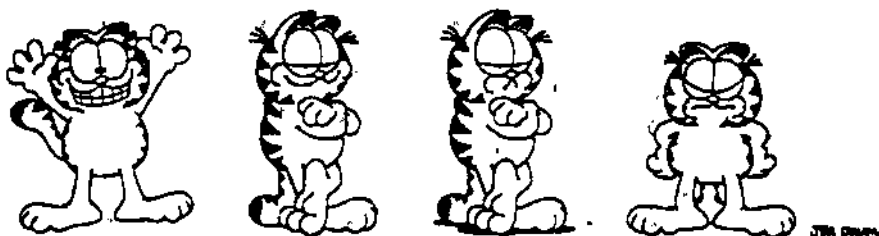
11. How do you feel when the teacher asks you questions about what you read?



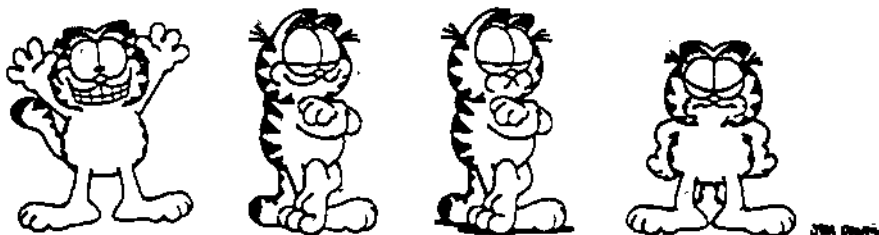
12. How do you feel about doing reading workbook pages and worksheets?



13. How do you feel about reading in school?



14. How do you feel about reading your school books?



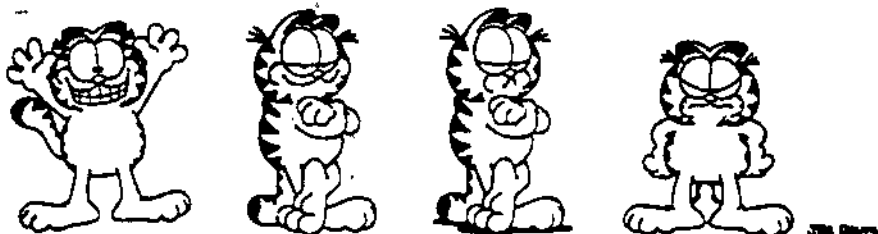
15. How do you feel about learning from a book?



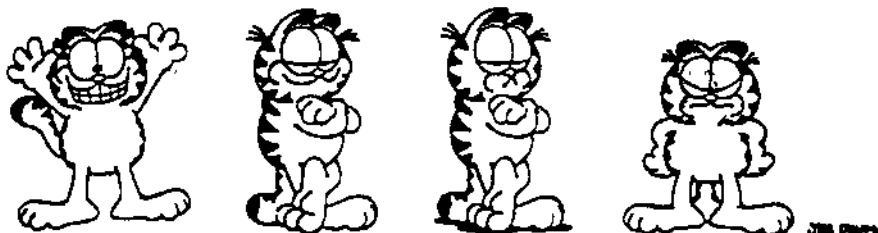
16. How do you feel when it's time for reading in class?



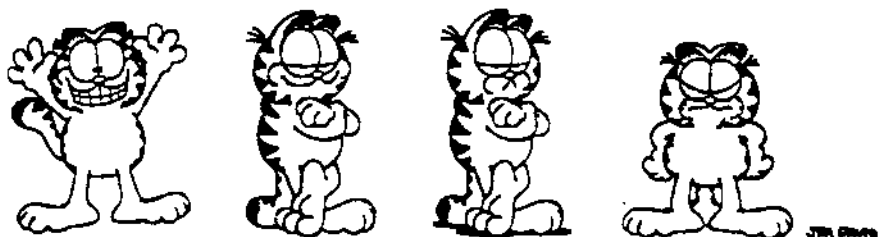
17. How do you feel about the stories you read in reading class?



18. How do you feel when you read out loud in class?



19. How do you feel about using a dictionary?



20. How do you feel about taking a reading test?



Elementary Reading Attitude Survey Scoring Sheet

Student Name _____

Teacher _____

Grade _____ Administration Date _____

Scoring Guide	
4 points	Happiest Garfield
3 points	Slightly smiling Garfield
2 points	Mildly upset Garfield
1 point	Very upset Garfield

Recreational reading

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Raw score: _____

Academic reading

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Raw score: _____

Full scale raw score (Recreational + Academic):

Percentile ranks

Recreational

Academic

Full scale

Norms for the Elementary Reading Attitude Survey

To create norms for the interpretation of the Elementary Reading Attitude Survey scores, a large-scale study was conducted in late January, 1989, at which time the survey was administered to 18,138 students in Grades 1–6. Several steps were taken to achieve a sample that was sufficiently stratified (that is, reflective of the American population) to allow confident generalizations. Children were drawn from 95 school districts in 38 U.S. states. The number of girls exceeded by only 5 the number of boys. Ethnic distribution of the sample was also close to that of the U.S. population in 1989. The proportion of Blacks (9.5%) was within 3% of the national proportion, whereas the proportion of Hispanics (6.2%) was within 2%.

Percentile ranks at each grade for both subscales and the full scale are presented in the table. These data can be used to compare individual students' scores with the national sample and they can be interpreted like achievement-test percentile ranks.

Appendix B

Classroom	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Grouping	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het
Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	3	2	2	4	4	4	3	3	2	1	2	2	3	3	2	2	3	1	3	2	3	1
2	1	2	4	4	3	3	2	4	1	3	1	3	1	1	1	1	1	1	3	2	1	1
3	2	2	4	4	4	4	2	3	3	2	3	4	4	3	3	1	2	3	3	3	3	1
4	2	3	4	4	3	4	2	3	3	1	3	4	3	4	1	2	2	3	4	1	4	2
5	2	2	4	4	2	3	2	4	1	1	1	1	1	1	1	2	1	1	3	1	2	1
6	3	3	3	4	3	3	4	3	4	4	4	2	2	4	2	1	3	4	3	3	3	3
7	1	1	4	4	1	3	1	1	1	1	1	1	1	2	1	1	1	1	3	2	2	1
8	2	2	2	4	1	3	2	1	2	2	1	2	3	1	1	2	3	1	4	1	1	1
9	3	4	4	4	4	4	1	2	4	4	3	3	3	4	3	3	3	3	4	4	3	4
10	2	3	4	4	4	4	4	3	3	4	3	3	4	3	2	2	2	3	2	3	3	1
11	1	2	4	1	3	2	3	2	1	2	1	2	2	1	1	2	1	1	1	2	1	1
12	2	2	1	1	1	2	1	1	1	1	3	1	1	2	1	2	1	1	1	1	2	1
13	2	2	4	4	3	4	3	3	2	3	3	3	3	3	1	2	4	3	3	3	2	1
14	2	2	4	4	1	3	1	2	1	3	2	3	2	3	1	2	2	2	2	2	1	1
15	3	3	4	4	4	4	2	3	4	4	2	4	3	3	2	2	4	1	3	3	4	4
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17	2	2	4	2	3	3	3	2	2	3	3	2	3	2	2	3	4	3	2	2	2	1
18	1	3	3	2	3	4	2	1	4	1	1	3	2	3	2	2	1	1	1	1	3	2
19	2	2	4	1	1	3	3	2	4	1	4	1	3	1	4	3	2	2	3	1	3	1
20	1	2	2	1	4	2	2	1	1	2	1	1	2	2	1	2	1	1	1	1	4	1
Reading	21	24	35	40	29	35	23	27	24	23	22	24	24	28	17	16	19	22	32	21	26	15
Academic	17	22	34	24	26	31	23	19	21	22	22	21	23	24	16	22	22	17	19	19	25	14
Combined	38	46	69	64	55	66	46	46	45	45	44	45	47	52	33	38	41	39	51	40	51	29

Classroom	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Grouping	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het	Het
Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	2	2	3	2	2	4	1	2	4	4	3	3	1	3	4	2	3	2	1	2	3	2
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19	4	3	2	4	3	1	3	2	4	1	4	1	4	3	2	1	3	3	1	4	3	3
20	3	2	1	2	1	1	2	1	1	2	2	2	1	2	3	3	1	2	2	1	3	1
Reading	22	21	27	24	20	19	21	28	29	26	27	28	20	28	26	20	21	21	20	23	24	21
Academic	26	22	22	27	24	19	25	22	27	23	28	28	20	28	24	28	23	23	14	21	24	22
Combined	48	43	49	51	44	38	46	50	56	49	55	56	40	56	50	48	44	44	34	44	48	43

Classroom	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Grouping	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom
Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	3	3	4	3	3	4	2	3	3	4	3	4	2	4	4	2	4	3	4	3	3	4	3	4
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5	4	3	3	4	3	3	1	3	3	4	3	4	3	4	3	4	2	3	3	4	3	4	2	3
6	4	4	4	4	4	4	3	3	3	4	4	4	2	4	3	2	4	4	4	4	4	4	4	4
7	2	2	3	2	3	4	2	2	3	4	3	4	2	4	2	2	4	4	2	3	3	4	1	4
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11	2	4	2	4	3	3	3	3	3	3	2	4	3	2	2	2	3	4	4	3	3	2	1	4
12	2	2	2	3	3	2	2	1	2	2	2	3	1	2	1	1	2	4	4	3	3	2	3	3
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15	2	2	3	4	4	3	3	3	4	4	3	4	2	3	3	3	4	4	3	4	4	3	4	3
16	2	3	3	3	4	4	3	3	2	2	2	2	4	1	1	3	4	4	4	3	3	3	3	3
17	3	4	3	4	3	2	4	3	4	3	4	2	3	3	1	2	4	4	3	4	3	3	3	3
18	2	1	4	4	4	1	4	3	2	3	2	2	2	4	4	2	1	3	4	1	4	4	2	3
19	1	2	4	2	2	3	2	3	3	3	3	1	2	2	2	2	3	4	3	3	3	2	4	2
20	2	4	2	4	3	3	3	2	3	3	2	1	2	2	2	1	2	4	4	3	4	2	1	2
Reading	30	29	34	33	33	35	24	29	31	38	32	39	26	36	31	22	36	36	33	35	35	39	21	36
Academic	22	26	29	34	33	27	31	26	31	30	25	28	21	28	23	17	27	38	37	29	35	27	26	29
Combined	52	55	63	67	66	62	55	55	62	68	57	67	47	64	54	39	63	74	70	64	70	66	47	65

Classroom	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Grouping	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom	Hom
Student	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	3	4	4	3	3	3	4	4	3	3	3	4	3	2	3	4	3	3	3	2	2	1	2
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9	4	4	4	4	4	4	4	4	4	3	4	3	4	3	4	4	3	3	4	4	4	3	3	3
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19	2	2	2	3	3	3	2	3	2	3	4	2	1	3	4	3	3	3	3	2	3	3	1	2
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Reading	30	30	33	36	34	35	26	35	36	30	34	32	28	26	25	33	34	23	35	31	27	21	18	23
Academic	34	24	24	20	26	25	31	28	22	31	33	29	21	28	25	29	27	24	25	27	23	25	24	25
Combined	64	54	57	56	60	60	57	63	58	61	67	61	49	54	50	62	61	47	60	58	50	46	42	48