

AN OUTCOME EVALUATION OF  
LIONS-QUEST "SKILLS FOR GROWING:"  
GRADES K - 5

Evaluation conducted by: Sehwan Kim, Ph.D. and Molly Laird, Ph.D.

EXECUTIVE SUMMARY

This brief reports outcome evaluation results of a widely used drug education/prevention program titled *Skills for Growing* (SFG) developed and disseminated by Quest-International. SFG was offered to the students in grades K-5 (n = 1,304) by regular classroom teachers of 14 different schools located in various parts of the U.S. and one in Ontario, Canada. Fourteen schools served as experimental and control groups at the same time. The control group students (n = 612) were selected through a random selection of classes by the teachers at the same grade level of the experimental students. The SFG program was implemented during October 1992 - May 1993.

Based on a quasi-experimental evaluation design, the following conclusions are drawn as observed from three grade segments: K-1, 2-3, and 4-5:

(1) The SFG 4-5 as replicated by 10 school sites during 1992-93 school year was able to produce significant and positive impact on maintaining the life skills and conflict-resolution skills of the program recipients when compared to the students in the control group. Furthermore, the program was able to produce a significant and positive impact on student perception toward their classroom environment. However, SFG 4-5 was not able to register any notable impact - either positive or negative - on the behavioral intention (either to use or not to use drugs in the future).

(2) The SFG 2-3 as replicated by 11 school sites during 1992-93 school year was not able to register any notable impact - either positive or negative - in all four dependent variables employed: (a) student attitude toward their classroom environment; (b) student life-skills; (c) drug knowledge; and (d) their behavioral intention (either to use or not to use drugs in the future).

(3) The SFG K-1 as replicated by eight school sites during 1992-93 school year was able to produce significant and positive impact on students' health-oriented behavior when compared to the students in the control group. However, SFG K-1 was not able to register any notable impact - either positive or negative - in other three dependent variables employed for this study: student responsibility, social behavior, and rule-abiding behavior.

(4) A significant number of statements included in the Student Assessment Survey instruments were skewed to the extreme ends. That is, 50 percent or more students are classified (i.e., concentrated) into one particular response type without even distribution along three response options provided. Here, an absolute majority of students are either "model" students or the SAS statements themselves had too little variation to offer or both. In order to improve the quality of the instruments, we need to select statements that have a greater even distribution along each of the three anchor points identified in the response type (i.e., nearing 33.3 percent distribution per response type).

(5) The current information is all too inclusive in content area and too ambitious in its scope. It tries to measure a large number of skills, attitudinal, and behavioral dimensions with just one to two statements without a concentrated effort to measure a manageable number of objects with as many statements as possible, given the environmental limitations coming from time and reading skills on the part of subjects.

(6) The current SAS instrument has three anchor points. According to psychometric rules, high reliability coefficients may be harder to establish because these three scores tend to have less variability. It has been shown that the narrower the range of scores, the lower coefficient of reliability.

(7) Due to three anchor points used for each response type, we were not able to generate clear factor-analytic solutions even with oblique rotations. Numerous factor solutions based on varimax rotations had produced many statements that were either irrelevant to or inconsistent with the presumed factor meanings/loadings.

(8) Based on these findings, we recommend a revision of the existing Student Assessment Survey instruments so that revised instruments may be able to "capture" changes in behavioral and attitudinal dimensions more effectively than the current instruments allow. We recommend either scales with five anchor points or a graphic rating scale or, perhaps, a combination of these two methods.

(9) More than anything else, an improvement of the existing instruments will depend on the selection of neutral statements that have a greater (or wider) distribution along the anchor points to be employed in the revised instruments.

**AN OUTCOME EVALUATION OF LIONS-QUEST "SKILLS FOR GROWING:"  
GRADES K - 1**

Evaluation Conducted by: Sehwan Kim, Ph.D. and Molly Laird, Ph.D.

**ABSTRACT**

The purpose of this study is to report the outcome evaluation results of *Skills for Growing* drug education and prevention program developed and disseminated by Quest-International. Based on a quasi-experimental evaluation design, it has been concluded that SFG as replicated by eight school sites during 1992-93 school year was able to produce significant and positive impact on students' health-oriented behavior when compared to the students in the control group. However, SFG K-1 was not able to register any notable impact - either positive or negative in - three other dependent variables employed for this study: student responsibility, generalized positive social behavior, and rule-abiding behavior.

**INTRODUCTION**

This study reports outcome evaluation results from a segment of one of the widely used drug education/prevention programs entitled developed and disseminated by Quest-International. SFG was offered to the students in grades K - 1 (n = 461) by regular classroom teachers of eight different schools located in various parts of the U.S. and one in Ontario, Canada. Eight schools served as experimental and control groups at the same time. The control group students (n = 179) were selected through a random selection of classes by the teachers at the same grade level of the experimental students. The SFG program was implemented during October 1992 - May 1993.

**THE SKILLS FOR GROWING AND ITS OBJECTIVE**

Lion-Quest *Skills for Growing* (SFG) is a comprehensive program for grades K-5 that brings together parents, educators, and members of the community to teach children important life and citizenship skills within a caring and consistent environment. The program teaches skills in four main areas: (1) self-discipline; (2) responsibility; (3) good judgement; and (4) getting along with others. A basic aim of the program is to develop a support system for children that involves the home, the school, and the community working together. The SFG is founded on the assumption that children who have the skills to get along with others, communicate effectively, solve problems, and say "No" to negative influences will be better able to have successful, healthy relationships throughout their lives. Developing these four skills is a basic aim of SFG.

### **Program Description:**

SFG curriculum is made up of five units, each focusing on a different theme and specific skills. The themes are repeated at each grade level, K-5, and the various skills are developed sequentially in an upward spiral of complexity appropriate to the students' ages and grade levels. Each unit contains an introductory activity and four to six lessons, offering classroom activities for an entire school year at each grade level. The focus of each of the five units are as follows:

Unit 1: "Building a School Community" is designed to help children feel comfortable and important as members of the classroom and the school.

Unit 2: In "Growing as a Group," children practice skills that will help them get along with others: listening, responding, resolving conflicts, and working cooperatively.

Unit 3: "Making Positive Decisions" offers practice in a clearly defined decision-making process, with an emphasis on positive choices and saying "No" to negative influences.

Unit 4: In "Growing Up Drug Free," students learn about the harmful effects of alcohol and other drugs, how advertising affects our decisions, and how to resist negative peer pressure.

Unit 5: "Celebrating You and Me" increases the children's awareness of individual talents and strengths and the important contributions each can make in both the classroom and the family.

By the conclusion of Unit 3, the students are ready to undertake their first service learning project. The Curriculum Guide for each grade level, a section titled "Setting Goals for Service" provides detailed instructions on how to plan, organize, and implement appropriate projects. Providing students with opportunities to learn by serving others and making a positive contribution to the school and community is thought to be an important element in achieving the program's goals of the SFG. Other details pertaining to the development of positive school climate, parent and community involvement, and the training and follow-up support for the SFG are available through "A Guide for Administrators" (Quest-International, 1990).

### **Theoretical Base of SFG:**

Like many newer psychosocial drug abuse prevention programs, a reflective review of the curriculum indicates that the program has conceptual roots either connected to or based on a multitude of theoretical and conceptual models. They include information-rational model (Ajzen and Fishbein, 1973; Ajzen and Fishbein, 1980), social bonding theory (Hirschi, 1969), social learning theory (Akers, 1977; Akers, Krohn, Lanza-Kaduce, & Radosevich,

1979; Burgess and Akers, 1966; Bandura, 1977), social development model (Hawkins and Weis, 1985; Wies and Hawkins, 1981; Elliot, Huizinga, and Ageton, 1982; Kim, 1981; Kandel, Treiman, Faust & Single, 1976), problem behavior theory (Jessor and Jessor, 1977; Jessor, 1982), and the self-derogation theory (Kaplan, Martin, & Robbins, 1982; Kaplan, 1980; Kaplan, 1976; Kaplan, 1975; Kaplan, Martin, & Johnson, 1986).

#### DEPENDENT VARIABLES

In evaluating the outcome of SFG for students in grades K-1, four behavioral domains embedded in the Student Assessment Survey instrument have been employed. The instrument is completed by the classroom teachers as they have evaluated their students. They are: students' responsibility, their generalized positive social behavior, rule-abiding behavior, and health-oriented behavioral disposition either expressed or demonstrated by the students.

These behavioral dimensions together generated four dependent variables that are used in estimating the final outcome of SFG K-1.

#### SCALE DEFINITIONS AND PROPERTIES

Listed below are conceptual definitions pertaining to each of the four scales included in the outcome analysis. Table 1 contains a list of specific items associated with each scale, including Alpha coefficient of reliability and the item-total correlation pertaining to these attitudinal scales.

##### Scale Definitions:

Responsibility Scale - measures the degree of self-initiated decisions by a students, assumption of his/her responsibility, and the accomplishment of such tasks and responsibilities as evaluated by classroom teachers.

Generalized Position Social Behavior Scale - taps various aspects of student behavior both at school or at home that may be designated as socially desirable and appropriate.

Rule-Abiding Scale - measures the degree to which students are socialized to the dominant values of the society, especially with regard to issues involving school rules, discipline, and self-control.

Health-Oriented Behavior Scale - measures students' healthy habits of eating and expressed caution regarding harmful substances.

### **Scale Properties:**

The scale items, Alpha coefficient of reliability (K-R 20), and other psychometric properties of the dependent measures employed in this outcome analysis are presented in Table 1. Table 1 also shows that each of the four scales has a range of 0 - 100. Each of the scale scores are re-computed in such a way that they all vary between 0 - 100. Scale scores are also assigned in such that larger values always indicate more positive or socially desirable attitudinal disposition.

Individual scale items, on the other hand, have the range of 1 - 3 corresponding to the three response patterns identified in the Student Assessment Survey instrument: yes, somewhat, and no. Again, item scores are also assigned in such that larger values always indicate more positive or socially desirable disposition.

Table 1. Scale Properties of the Student Assessment Survey:  
Grade Level K-1

Scale Name	Mean	s.d.	Item-Total Correlation
Responsibility Scale: (Alpha = .86)	85.15	22.49	
5. Assume appropriate level of responsibility	2.68	.54	.75
12. Make decisions for self	2.74	.47	.69
21. Accomplish appropriate tasks on his/her own	2.72	.52	.78
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Generalized Positive Social Behavior (Alpha = .90)	83.92	22.25	
23. Display argumentative behavior	2.56	.64	.73
24. Demand too much attention from peers	2.66	.61	.75
25. Lie/cheat a lot	2.84	.43	.61
27. Make fun of/bully other kids	2.76	.50	.74
28. Get teased by other kids	2.77	.48	.61
29. Get in trouble at school	2.62	.61	.81
30. Misbehave at home	2.55	.62	.73
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Rule-Abiding (Alpha = .89)	84.10	20.75	
2. Listen attentively	2.53	.58	.69
3. Respect property of others	2.80	.42	.72
4. Follow rules in the classroom	2.69	.49	.78
6. Show consideration for others	2.74	.47	.74
8. Show self-control	2.64	.53	.72
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Health-Oriented Behavior (Alpha = .78)	91.15	19.27	
13. Express caution about harmful substances	2.77	.47	.64
14. Demonstrates some healthy habits of eating	2.87	.38	.64

Note: Mean = Larger values indicate socially desirable responses. Each scale has a range of 0 - 100. Each scale item has a range of 1 - 3.

## Validity:

Validity pertaining to these scales is accomplished using construct validity test. Prevention research, especially the work of Botvin, Eng, and Williams (1980) and Kim (1981), amply testifies that students who are responsible, well-disciplined, do not misbehave at home or at school, and rule-abiding are more likely to resist negative peer pressure and, therefore, less likely to abuse drugs than those without these characteristics. In fact, a significant number of state-of-the-art prevention strategies are based on these assumptions. Accordingly, it is hypothesized that scale scores of responsibility, generalized positive social behavior, rule-abiding, and health-oriented behavior will be higher among students who resist negative peer pressure than those who do not.

In order to test these four hypotheses, a known group method is used: those who have been identified as resisting negative peer influences and those who do not as evaluated by the classroom teachers. (Item 22 of SAS instrument.) Table 2 shows that the responsibility scale score of the group with the resistance skill is significantly higher than those without it. Similarly, Table 3 shows that the generalized positive social behavior score of the group with the resistance is significantly higher than the group without the resistance to negative peer pressure.



Table 2. Comparison of Responsibility Scale Scores Between Two Groups With and Without the Resistance to Negative Peer Pressure

Group	Number of Cases	Mean	Standard Deviation
Without the Resistance to Peer Pressure	25	45.82	34.98
With the Resistance to Peer Pressure	358	93.48	13.93
t = 14.32 (p < .001)			

Table 3. Comparison of Generalized Positive Social Behavior Scale Scores Between Two Groups With and Without the Resistance to Negative Peer Pressure

Group	Number of Cases	Mean	Standard Deviation
Without the Resistance to Peer Pressure	20	46.41	25.32
With the Resistance to Peer Pressure	317	92.39	13.69
t = 13.66 (p < .001)			

Similarly, Table 4 shows the results of a similar construct validity test of rule-abiding scale based on two groups of students with and without the resistance to negative peer pressure. It was hypothesized that former group of students will have a higher scale score on rule-abiding than those who belong to the latter group. As shown in Table 4, there is a statistically significant difference between the two groups. The rule-abiding scale score pertaining to the group without the resistance to negative peer pressure is significantly lower than the group without the resistance.

Finally, Table 5 shows the results of construct validity test of healthy behavior scale comparing two groups of students with and without the resistance to negative peer pressure. It shows that the former group of students have a higher mean scale score than those who belong to the latter group as expected. That is, there is a statistically significant difference between the two groups: the healthy behavior scale score pertaining to the group without

the resistance to negative peer pressure is significantly lower than the group with the resistance disposition.

Table 4. Comparison of Rule-Abiding Scale Scores Between Two Groups With and Without the Resistance to Negative Peer pressure

Group	Number of Cases	Mean	Standard Deviation
Without the Resistance to Peer Pressure	25	41.20	30.73
With the Resistance to Peer Pressure	360	93.75	11.23
t = 19.08 (p <.001)			

Table 5. Comparison of Health-Oriented Behavior Scale Scores Between Two Groups With and Without the Resistance to Negative Peer Pressure

Group	Number of Cases	Mean	Standard Deviation
Without the Resistance to Peer Pressure	22	63.60	30.60
With the Resistance to Peer Pressure	339	96.90	9.69
t = 12.64 (p <.001)			

Based on the construct validity tests shown in Tables 2-5, it now may be asserted that all our four dependent variables brought into the evaluation design have reasonably good discriminate power demonstrating significant group differences in the hypothesized directions without any exception.

#### EVALUATION DESIGN

The evaluation design employed is a quasi-experimental design. In this design both the experimental and control group students were measured with a time interval of about 6-7 months between the tests, i.e., the pre test was administered during October/November 1992 and the post test during May 1993. The subjects for both the experimental and control groups were drawn from eight schools located in: Grand Rapids, Michigan; Ontario, Canada; Norman, Oklahoma; Glencoe, Minnesota; Shortville, New York; Jacksonville, Florida; Battle Creek, Michigan; and Albion, Michigan. The

selection of students were based on a random selection of classroom units and all the students who belong to the selected classroom are measured at pre and post test periods. The students in the control group all came from the same grade levels of the schools where the SFG students came.

#### DATA ANALYSIS PROCEDURE

In determining the treatment effect of the SFG, the following data reduction procedures were implemented: 1) the unit of analysis employed for this evaluation research was each student; 2) four scales enumerated above have been used as the evaluation criteria for the outcome analysis; 3) the final conclusions were made using analysis of covariance (ANCOVA) where the post test scale score is used as the dependent variable, the experimental-control status as the independent (i.e., main effect), and the pretest scale score as the covariant (Anderson, et al., 1980); and 4) all tests are implemented while employing Type I error of .10 using a two-tailed test.

#### RESULTS

Initially, 743 students participated in the pretest. Of the latter, 13.9 percent (n = 103) were lost due to student mobility, transiency, mismatch between pre and post test, logistic, and administrative malfunctions. The overall attrition rate observed in this replication is thought to be rather small. The final sample is based on 640 students: 461 students in the experimental and 179 in the control group.

Table 6. Mean Scale Score Changes Between Pre and Post Tests on Four Criterion Variables: ANCOVA Analysis, 8 SFG Sites Oct./Nov. 1992 - May 1993

Scales	Experimental		Control		ANCOVA	
	Pre	Post	Pre	Post	F	P
RESPONSIBILITY	85.80	90.39	83.47	87.50	2.22	.137
s	23.14	18.85	20.69	17.65		
n	456	454	178	177	627	
GENERALIZED POSITIVE SOCIAL BEHAVIOR	85.26	83.02	79.69	80.74	1.64	.200
S	22.01	24.64	22.59	20.63		
n	391	440	124	162	506	
RULE-ABIDING	84.74	87.59	82.46	84.66	1.29	.256
s	21.08	19.68	19.85	18.81		
n	458	456	179	178	632	
HEALTH-ORIENTED BEHAVIOR	92.60	96.52	86.99	87.83	34.13	.001
s	15.91	11.50	26.30	20.34		
n	419	438	146	152	562	

s: Standard deviation

n: Sample size for each subgroup

As show in Table 6, the final outcome analysis is based on ANCOVA F test. It also shows that all four scales have improved between pre and post test periods both in the experimental and control groups. Of the four F tests, it may be observed that one has shown positive results with statistical significance observed at the .001 level, i.e., scale on health-oriented behavior. As such, it now may be concluded that the SFG K-1 as replicated by the participating schools during 1992-93 has been successful in increasing students' health-oriented behavior when compared to the students in the control group.

However, SFG K-1 was not able to register any notable impact - either positive or negative - in other three dependent variables

employed for this study: student responsibility, generalized positive social behavior, and rule-abiding behavior.

#### TECHNICAL NOTES

1. This is a report of results obtained during the SFG replication in eight sites during 1992-1993. The shortcomings pertaining to this study are identified below. All answers reported in this study are based on students' self-reports. Most respondents appeared to be quite uninhibited in reporting their feelings even though each student is asked to provide their own name in the survey questionnaire. However, it is not unreasonable to suspect that some unknown proportion of respondents may have a tendency toward under-representing true feelings, while others may have over-represented them. The kind of questions asked in the SAS are in general unobtrusive. Even the very obtrusive, self-reported data on drug use when verified by biochemical and other external sources of information have shown that self-report measures are both valid and reliable estimates of students' drug using behavior (Akers, Massey, Clarke, & Lauer, 1983; Johnston, O'Malley, & Bachman, 1984).

This study, unlike many other prevention evaluation studies, has shown a relatively small attrition rate between pre and post tests. Furthermore, the pretest scores pertaining to students in the experimental and control groups were quite comparable even though a quasi-experimental evaluation design was employed.

Despite these strengths, there were some significant limitations inherent to the study, especially those involving the Student Assessment Survey instrument itself and the attitudinal makeup of students in both the experimental and control groups in the first place. Here, we will list some of the strategies that can be used to improve the sensitivity of the instrument so that the instrument itself may have a better chance to detect changes in attitudinal, skills, or behavioral domains.

2. Nearly all of the statements included in the Student Assessment Survey instruments were skewed to the extreme ends. That is, teacher responses were concentrated in either one of the two extreme response types, thereby leaving little room to vary. That is, 50% or more students are classified (i.e., concentrated) into one particular response type without even distributions. Here, an absolute majority of students are either "model" students or the statements themselves had little variation or both. In order to improve the quality of the instrument, we need to select statements that have a greater even distribution along each of the three anchor points identified in the response type (i.e., nearing 33.3 percent distribution per response type).

3. The current instrument is all too inclusive in content areas and too ambitious in its scope. It tries to measure a large number

of behavioral dimensions with just one to two statements without a concentrated effort to measure a manageable number of objects with as many statements as possible.

4. The current instrument has three anchor points. According to Samuda (1975), high reliability coefficients may be harder to establish because these three scores tend to have less variability. It has been shown that the narrower the range of scores, the lower the coefficient of reliability (Wesman, 1952). On the other hand, our scales are derived from factor-analytic solutions compromising the epistemological correlations. Thus, our scales have artificially inflated Alpha coefficients. Accordingly, one may note some of the items have low-face validity. But the exclusion of these items may have also contributed to a significantly lower Alpha levels.

5. Kim and Laird designed a construct validity test based on the pre-existing statements available from the existing instrument. This effectively limited our effort to engage in a more rigorous and methodical validity test.

6. Due to three anchor points used for each response type, we were not able to generate clear factor-analytic solutions even with oblique rotations. Numerous factor solutions based on varimax rotations had produced many statements that were either irrelevant to or inconsistent with the presumed factor meanings/loadings.

7. Based on these findings, Kim and Laird recommend a revision of the existing Student Assessment Survey instrument for K-1 so that a revised instrument may be able to "capture" changes in behavioral and attitudinal dimensions more effectively than the current instrument allows. Kim and Laird recommend either scales with five anchor points or a graphic rating scale or, perhaps, a combination of these two methods. More than anything else, an improvement of the existing instrument will depend on the selection of neutral statements that have a greater distributions along the anchor points to be employed in the revised instrument.

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GRADES 2 - 3**

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**ABSTRACT**

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**INTRODUCTION**

This study reports outcome evaluation results from a segment of one of the widely used drug education/prevention programs entitled developed and disseminated by Quest-International. SFG was offered to the students in grades 2 - 3 (n = 468) by regular classroom teachers of 11 different schools located in various parts of the U.S. and one in Ontario, Canada. Eleven schools served as experimental and control groups at the same time. The control group students (n = 284) were selected through a random selection of classes by the teachers at the same grade level of the experimental students. The SFG program was implemented during October 1992 - May 1993.

**THE SKILLS FOR GROWING PROGRAM AND ITS OBJECTIVES**

Lion-Quest *Skills for Growing* (SFG) is a comprehensive program for grades K-5 that brings together parents, educators, and members of the community to teach children important life and citizenship skills within a caring and consistent environment. The program teaches skills in four main areas: (1) self-discipline; (2) responsibility; (3) good judgement; and (4) getting along with others. A basic aim of the program is to develop a support system for children that involves the home, the school, and the community working together. SFG is founded on the assumption that children who have the skills to get along with others, communicate effectively, solve problems, and say "No" to negative influences will be better able to have successful, healthy relationships throughout their lives. Developing these four skills is the basic aim of SFG.

## **Program Description:**

The SFG curriculum is made up of five units, each focusing on a different theme and specific skills. The themes are repeated at each grade level, K-5, and the various skills are developed sequentially in an upward spiral complexity appropriate to the students' ages and grade levels. Each unit contains an introductory activity and four to six lessons, offering classroom activities for an entire school year at each grade level. The focus of each of the five units are as follows:

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By the conclusion of Unit 3, the students are ready to undertake their first service learning project. The Curriculum Guide for each grade level, a section titled "Setting Goals for Service" provides detailed instructions on how to plan, organize, and implement appropriate projects. Providing students with opportunities to learn by serving others and making a positive contribution to the school and community is thought to be an important element in achieving the program's goals of the SFG. Other details pertaining to the development of positive school climate, parent and community involvement, and the training and follow-up support for the SFG are available through "A Guide for Administrators" (Quest-International, 1990).

## **Theoretical Base of SFG:**

Like many newer psychosocial drug abuse prevention programs, a reflective review of the curriculum indicates that the program has conceptual roots either connected to or based on a multitude of theoretical and conceptual models. They include information-rational model (Ajzen and Fishbein, 1973; Ajzen and Fishbein, 1980), social bonding theory (Hirschi, 1969), social learning theory (Akers, 1977; Akers, Krohn, Lanza-Kaduce, & Radosevich,

1979; Burgess and Akers, 1966; Bandura, 1977), social development model (Hawkins and Weis, 1985; Wies and Hawkins, 1981; Elliot, Huizinga, and Ageton, 1982; Kim, 1981; Kandel, Treiman, Faust & Single, 1976), problem behavior theory (Jessor and Jessor, 1977; Jessor, 1982), and the self-derogation theory (Kaplan, Martin, & Robbins, 1982; Kaplan, 1980; Kaplan, 1976; Kaplan, 1975; Kaplan, Martin, & Johnson, 1986).

#### DEPENDENT VARIABLES

In evaluating the outcome of SFG for students in grades 2-3, four domains embedded in the Student Assessment Survey have been employed. They are: knowledge, skills, attitudinal, and behavioral intention.

- ▶ Knowledge domain taps drug information pertaining to the effects and consequences of "gateway" drug use as perceived by students.
- ▶ Skills domain measures a multitude of life skills that are stipulated or implied by Botvin (1981). This domain measures the student's acquisition and the practice of these skills.
- ▶ The attitudinal domain includes one scale. It measures student's perception of their classroom environment.
- ▶ Finally, the behavioral intention is measured in terms of students' willingness not to use cigarettes and alcohol in the future.

These knowledge, skills, attitudinal, and intention domains together generated four dependent variables that are used in estimating the final outcome of SFG 2-3.

#### SCALE DEFINITIONS AND PROPERTIES

Listed below are conceptual definitions pertaining to each of the four scales included in the outcome analysis. Table 1 contains a list of specific items associated with each scale, including Alpha coefficient of reliability and the item-total correlation pertaining to these attitudinal scales.

##### Scale Definitions:

Drug Knowledge Scale - measures the harmful effects of the use and abuse and consequences of using "gateway" drugs such as alcohol, cigarettes, and marijuana as perceived by students.

Classroom Environment Scale - measures the respondent's perception of the degree to which he/she feels his/her classmates are friendly, feel comfortable, and accepted by other members in the classroom.

Life Skills Scale - taps the degree of interpersonal and general life skills acquisition (Botvin, 1981) and the degree which students practice these skills that they have acquired.

Behavioral Intention Scale - measures the future intent not to smoke cigarettes or drink alcohol.

#### Scale Properties:

The scale items, Alpha coefficient of reliability (K-R 20), and other psychometric properties of the dependent measures employed in this outcome analysis are presented in Table 1. Table 1 also shows that each of the four scales has a range of 0 - 100. Each of the scale scores are re-computed in such a way that they all vary between 0 - 100. Scale scores are also assigned in such a way that larger values always indicate more positive or socially desirable attitudinal disposition.

Individual scale items, on the other hand, have the range of 1 - 3 corresponding to the three response patterns identified in the Student Assessment Survey instrument: yes, somewhat, and no. Again, item scores are also assigned in such that larger values always indicate more positive or socially desirable disposition.

Table 1. Scale Properties of the Student Assessment Survey:  
Grade Level 2-3

Scale Name	Mean	s.d.	Item-Total Correlation
Drug Knowledge Scale: (Alpha = .67)	94.13	14.62	
13. Cigarettes are full of dangerous drugs	2.88	.42	.48
14. Drinking is harmful even for grownups	2.89	.40	.51
32. Marijuana hurts your lungs	2.88	.43	.38
34. When you smoke, you hurt your body	2.89	.39	.42
-----			
Classroom Environment Scale: (Alpha = .48)	55.55	24.44	
9. Kids make fun of me	2.10	.75	.31
24. I get angry with kids in this class	1.92	.71	.24
30. Classmates treat me with respect	2.30	.63	.34
-----			
Life-Skills: Interpersonal and Social (Alpha = .48)	82.90	16.03	
19. A decision can be helpful or harmful	2.53	.60	.20
20. Every kid in class has some special talents	2.76	.49	.25
23. I try not to make fun of other kids	2.57	.70	.19
25. When you work in a group, you learn from other kids, but it is worth it	2.68	.54	.27
27. You can learn a lot from helping others	2.75	.49	.34

Table 1 (Continued). Scale Properties of the Student Assessment Survey : Grade Level 2-3

Scale Name	Mean	s.d.	Item-Total Correlation
Intention Not to Use Drugs (Alpha = .????)	95.27	18.64	
40. Someday, I will smoke cigarettes or drink alcohol	2.89	.36	1.00

Note: Mean = Larger values indicate socially desirable responses. Each scale has a range of 0 - 100. Each scale item has a Range of 1 - 3.

**Validity:**

Validity test pertaining to these scales is accomplished using construct validity test. Prevention research, especially the work of Botvin, Eng, and Williams (1980), amply testifies that students who are trained with various life skills are less likely to abuse drugs than those without these skills. In fact, a significant number of the state-of-the-art prevention strategies are based on this paradigm. Similarly, many drug abuse prevention programs impart drug information as a deterrent to future onset of drug using behavior. Accordingly, it is hypothesized that life skill and knowledge scale scores of those who intend to use drugs will be lower than those who do not intend to use drugs in the future.

In order to test these hypotheses, two groups are identified: those who intend to use cigarettes and alcohol in the future and those who do not intend to use these drugs in the future. Table 2 shows that the life skills scale score of the group with no future intention to use drugs is significantly higher than those with the intention to use drugs. Similarly, Table 3 shows that drug knowledge scale score of the group with no future intention to use drugs is significantly higher than those with the intention to use drugs in the future.



Table 2. Comparison of Life Skills Scale Scores Between Two Groups With and Without the Intention to Use Drugs in the Future

Group	Number of Cases	Mean	Standard Deviation
With the Intention to Use Drugs	20	66.00	26.83
Without the Intention to Use Drugs	688	83.63	15.02
t = 5.03 (p <.001)			

Table 3. Comparison of Drug Knowledge Scale Scores Between Two Groups With and Without the Intention to Use Drugs in the Future

Group	Number of Cases	Mean	Standard Deviation
With the Intention to Use Drugs	20	73.75	29.50
Without the Intention to Use Drugs	697	94.98	13.50
t = 6.61 (p <.001)			

Finally, Table 4 shows the results of a similar construct validity test of classroom environment scale based on two groups of students with low and high self-esteem. Obviously, it is hypothesized that students with low self-esteem will have a lower classroom environment scale score than those who belong to the group with high self-esteem. This is expected because students with low self-esteem are more likely to feel that other kids in the class make fun of them as well as being not respected by others. As shown in Table 4, there is a statistically significant difference between the two groups. The classroom environment scale score pertaining to the group with low self-esteem is significantly lower than the group with high self-esteem. Students are classified as having either low or high self-esteem based on the two extreme responses to the statement 5 included in the Student Assessment Survey: I am proud of the things I do.

Table 4. Comparison of Classroom Environment Scale Scores Between Two Groups: Low and High Self-Esteem

Group	Number of Cases	Mean	Standard Deviation
With Low Self-Esteem	20	33.40	22.99
With High Self-Esteem	508	58.19	25.53

t = 4.27 (p < .001)

Based on the construct validity tests shown in Tables 2-4, it now may be asserted that all our four dependent variables brought into the evaluation design have reasonably good discriminate power demonstrating significant group differences in the hypothesized directions.

#### EVALUATION DESIGN

The evaluation design employed is a quasi-experimental design. In this design both the experimental and control group students were measured with a time interval of about 6-7 months between the tests, i.e., the pre test during May 1993. The subjects for both the experimental and control groups were drawn from 11 schools located in: Grand Rapids, Michigan; Ontario, Canada; Pleasant Hill, Missouri; Norman, Oklahoma; Shortville, New York; Jacksonville, Florida; Southfield, Michigan; Cartersville, Georgia; Hinkly, Illinois; Battle Creek and Albion, Michigan. The selection of students were based on a random selection of classroom units and all the students who belong to the selected classroom are measured at pre and post test periods. The students in the control group all came from the same grade levels of the schools where the SFG students came.

#### DATA ANALYSIS PROCEDURE

In determining the treatment effect of the SFG, the following data reduction procedures were implemented: 1) the unit of analysis employed for this evaluation research was each student; 2) four scales enumerated above have been used as the evaluation criteria for the outcome analysis; 3) the final conclusions were made using analysis of covariance (ANCOVA) where the post test scale score is used as the dependent variable, the experimental-control status as the independent (i.e., main effect), and the pretest scale score as the covariant (Anderson, et al., 1980); and 4) all tests are implemented while employing Type I error of .10 using a two-tailed test.

## RESULTS

Initially, 898 students participated in the pretest. Of the latter, 16.3 percent (n = 146) were lost due to student mobility, transiency, mismatch between pre and post test, logistic, and administrative malfunctions. The overall attrition rate observed in this replication is thought to be rather small. The final sample is based on 752 students: 468 students in the experimental and 284 in the control group.

Table 5. Mean Scale Score Changes Between Pre and Post Tests on Four Criterion Variables: ANCOVA Analysis, 11 SFG Sites, Oct./Nov. 1992 - May 1993

Scales	Experimental		Control		ANCOVA	
	Pre	Post	Pre	Post	F	P
DRUG KNOWLEDGE	94.37	92.45	93.75	92.84	0.14	.708
s	13.54	17.14	16.26	14.92		
n	464	467	284	281	743	
LIFE SKILLS	82.57	80.93	83.44	79.75	0.75	.387
s	16.47	16.38	15.30	17.52		
n	456	462	282	280	727	
CLASS ENVIRONMENT	54.27	57.72	57.63	57.68	0.07	.127
s	23.73	25.52	25.47	24.76		
n	464	467	284	282	748	
INTENTION NOT TO USE DRUGS	94.43	93.15	96.65	95.76	2.33	.127
s	19.68	21.88	16.74	17.35		
n	467	467	284	283	748	

s: Standard deviation  
n: Sample size for each subgroup

As shown in Table 5, the final outcome is based on ANCOVA F test. It also shows that all scales have deteriorated between pre and post test period both in the experimental and control groups with the possible exception of classroom environment scale. Of the four F tests, it may be observed that none has shown statistical significance at the .10 level or higher. As such, it now may be concluded that the SFG 2-3 as replicated by 11 participating schools during 1992-93 has not been successful in bringing about either positive or negative changes along the knowledge, skills, attitude, or behavioral intention dimensions included in the Students Assessment Survey instrument.

It must be added here that the unsuccessful outcome observed here may be due to either the program itself or the instrument we have used to evaluate SFG. Since the same program has shown some

effectiveness involving other groups of students (e.g., SFG students in grades 4-5), we are in a better position to doubt the appropriateness of the evaluation instrument used than the program itself.

#### TECHNICAL NOTES

1. This is a report of results obtained during the SFG replication in eleven sites during 1992-1993. The shortcomings pertaining to this study are identified below. All answers reported in this study are based on self-reports. Most respondents appeared to be quite uninhibited in reporting their feelings even though each student is asked to provide their own name in the survey questionnaire. However, it is not unreasonable to suspect that some unknown proportion of respondents may have a tendency toward under-representing true feelings, while others may have over-represented them. The kind of questions asked in the SAS are in general unobtrusive. Even the very obtrusive, self-reported data on drug use when verified by biochemical and other external sources of information have shown that self-report measures are both valid and reliable estimates of students' drug using behavior (Akers, Massey, Clarke, & Lauer, 1983; Johnston, O'Malley, & Bachman, 1984).

The study, unlike many other prevention evaluation studies, has shown a relatively small attrition rate between pre and post tests. Furthermore, the pretest scores pertaining to students in the experimental and control groups were quite comparable even though a quasi-experimental evaluation design was employed.

Despite these strengths, there were some significant limitations inherent to the study, especially those involving the Student Assessment Survey instrument itself and the attitudinal makeup of students in both the experimental and control groups in the first place. Here, we will list some of the strategies that can be used to improve the sensitivity of the instrument so that the evaluation instrument itself may have a better chance to detect changes in knowledge, skills, attitudinal and intentional domains.

2. Nearly all of the statements included in the Student Assessment Survey instruments were skewed to the extreme ends. That is, student responses were concentrated in either one of the two extreme response types, thereby leaving little room to vary. Here, we need to select statements that have a greater even distribution along each of the three anchor points identified in the response type.

3. The current instrument is all too inclusive in content areas and too ambitious in its scope. It tries to measure a large number of knowledge, skills, attitudinal, and/or psychological objects with just one to two statements without a concentrated effort to measure a manageable number of objects with as many statements as possible. This resulted in a very small Alpha coefficients of reliability observed in this study. Typical scale based on face-validity yield

an average of .28 Alpha coefficient of reliability.

4. The current instrument has three anchor points. According to Samuda (1975), high reliability coefficients may be harder to establish because these three scores tend to have less variability. It has been shown that the narrower the range of scores, the lower the coefficient of reliability (Wesman, 1952).

5. In the absence of an initial effort to incorporate validity test, Kim and Laird had to devise a construct validity test based on the pre-existing statements available from the existing instrument. This effectively limited our effort to engage in a more rigorous and methodical validity test.

6. Due to three anchor points used for each response type, we were not able to generate clear factor-analytic solutions even with oblique rotations. Numerous factor solutions based on varimax rotations had produced many statements that were either irrelevant to or inconsistent with the presumed factor meanings/loadings.

7. Based on these findings, we recommend a revision of the existing Student Assessment Survey instrument so that a revised instrument may be able to "capture" changes in psychological object more effectively than the current instrument allows. We recommend either scales with five anchor points or a graphic rating scale or, perhaps, a combination of these two methods.

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**AN OUTCOME EVALUATION OF LIONS-QUEST "SKILLS FOR GROWING:"  
GRADES 4 - 5**

Evaluation conducted by: Sehwan Kim, Ph.D. and Molly Laird, Ph.D.

**ABSTRACT**

The purpose of this study is to report the outcome evaluation results of *Skills for Growing* drug education and prevention program developed and disseminated by Quest-International. Based on a quasi-experimental evaluation design, it has been concluded that SFG as replicated by 14 school sites during 1992-93 school year was able to produce significant and positive impact on maintaining the life skills and conflict-resolution skills of the program recipients when compared to the students in the control group. However, SFG was not able to register any notable impact - either positive or negative - in two other dependent variables employed for this study: student attitude toward their classroom environment and their behavioral intention (either to use or not to use drugs in the future).

**INTRODUCTION**

This study reports outcome evaluation results from a segment of one of the widely used drug education/prevention programs entitled developed and disseminated by Quest-International. SFG was offered to the students in grades 4 - 5 (n = 565) by regular classroom teachers of 14 different schools located in various parts of the U.S. and one in Ontario, Canada. Fourteen Schools served as experimental and control groups at the same time. The control group students (n = 330) were selected through a random selection of classes by the teachers at the same grade level of the experimental students. The SFG program was implemented during October 1992 - May 1993.

**THE SKILLS FOR GROWING PROGRAM AND ITS OBJECTIVES**

Lion-Quest *Skills for Growing* (SFG) is a comprehensive program for grades K-5 that brings together parents, educators, and members of the community to teach children important life and citizenship skills within a caring and consistent environment. The program teaches skills in four main areas: (1) self-discipline; (2) responsibility; (3) good judgement; and (4) getting along with others. A basic aim of the program is to develop a support system for children that involves the home, the school, and the community working together. The SFG is founded on the assumption that children who have the skills to get along with others, communicate effectively, solve problems, and say "No" to negative influences will be better able to have successful, healthy relationships

throughout their lives. Developing these four skills is the basic aim of SFG.

**Program Description:**

The SFG curriculum is made up of five units, each focusing on a different theme and specific skills. The themes are repeated at each grade level, K-5, and the various skills are developed sequentially in an upward spiral of complexity appropriate to the students' ages and grade levels. Each unit contains an introductory activity and four to six lessons, offering classroom activities for an entire school year at each grade level. The focus of each of the five units are as follows:

Unit 1: "Building a School Community" is designed to help children feel comfortable and important as members of the classroom and the school.

Unit 2: In "Growing as a Group," children practice skills that will help them get along with others: listening, responding, resolving conflicts, and working cooperatively.

Unit 3: "Making Positive Decisions" offers practice in a clearly defined decision-making process, with an emphasis on positive choices and saying "No" to negative influences.

Unit 4: In "Growing Up Drug Free," students learn about the harmful effects of alcohol and other drugs, how advertising affects our decisions, and how to resist negative peer pressure.

Unit 5: "Celebrating You and Me" increases the children's awareness of individual talents and strengths and the important contributions each can make in both the classroom and the family.

By the conclusion of Unit 3, the students are ready to undertake their first service learning project. The Curriculum Guide for each grade level, a section titled "Setting Goals for Service" provides detailed instructions on how to plan, organize, and implement appropriate projects. Providing students with opportunities to learn by serving others and making a positive contribution to the school and community is thought to be an important element in achieving the program's goals of the SFG. Other details pertaining to the development of positive school climate, parent and community involvement, and the training and follow-up support for the SFG are available through "A Guide for Administrators" (Quest-International, 1990).

**Theoretical Base of SFG:**

Like many newer psychosocial drug abuse prevention programs, a reflective review of the curriculum indicates that the program has conceptual roots either connected to or based on a multitude of theoretical and conceptual models. They include information-

rational model (Ajzen and Fishbein, 1973; Ajzen and Fishbein, 1980), social bonding theory (Hirschi, 1969), social learning theory (Akers, 1977; Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979; Burgess and Akers, 1966; Bandura, 1977), social development model (Hawkins and Weis, 1985; Wies and Hawkins, 1981; Elliot, Huizinga, and Ageton, 1982; Kim, 1981; Kandel, Treiman, Faust & Single, 1976), problem behavior theory (Jessor and Jessor, 1977; Jessor, 1982), and the self-derogation theory (Kaplan, Martin, & Robbins, 1982; Kaplan, 1980; Kaplan, 1976; Kaplan, 1975; Kaplan, Martin, & Johnson, 1986).

#### DEPENDENT VARIABLES

In evaluating the outcome of SFG for students in grades 4 - 5, three domains embedded in the Student Assessment Survey have been employed. They are: skills, attitudinal, and behavioral intention.

► Skills domain includes two scales. They are student's acquisition and the practice of (1) general life skills and (2) conflict-resolution skills.

► The attitudinal domain includes one scale: (3) student's perception of their classroom environment.

► Finally, the behavioral intention is measured in terms of students' (4) willingness not to use cigarettes and alcohol in the future.

These scales, attitudinal, and intention domains together generated four dependent variables that are used in estimating the final outcome of SFG 4-5.

#### SCALE DEFINITIONS AND PROPERTIES

Listed below are conceptual definitions pertaining to each of the four scales included in the outcome analysis. Table 1 contains a list of specific items associated with each scale, including Alpha coefficient of reliability and the item-total correlation pertaining to these attitudinal scales.

##### Scale Definitions:

Classroom Environment Scale - measure the respondent's perception of the degree to which he/she feels his/her classmates are friendly, feels comfortable, and accepted by other members in the classroom.

Life Skills Scale - taps the degree of interpersonal and general life skills acquisition (Botvin, 1981) and the degree which students practice these skills that they have acquired.

Conflict-Resolution Scale - measures the degree to which the respondents are willing to apply problem-solving and other compromising skills when confronted with disagreements and potential interpersonal conflict.

Behavioral Intention Scale - measures the future intent not to smoke cigarettes or drink alcohol.

**Scale Properties:**

The scale items, Alpha coefficient of reliability (K-R 20), and other psychometric properties of the dependent measure employed in this outcome analysis are presented in Table 1. Table 1 also shows that each of the four scales has a range of 0 - 100. Each of the scale scores are re-computed in such a way that they all vary between 0 - 100. Scale scores are also assigned in such a way that larger values always indicate more positive or socially desirable attitudinal disposition.

Individual scale items, on the other hand, have the range of 1 - 3 corresponding to the three response patterns identified in the Student Assessment Survey instrument: yes, somewhat, and no. Again, item scores are also assigned in such that larger values always indicate more positive or socially desirable disposition.

Table 1. Scale Properties of the Student Assessment Survey:  
Grade Level 4-5

Scale Name	Mean	s.d.	Item-Total Correlation
Classroom Environment Scale: (Alpha = .62)	64.38	21.99	
1. My classmates are friendly	2.44	.55	.47
17. My classmates treat me with respect	2.19	.59	.48
21. Everyone in my class makes a contribution to the class	2.22	.61	.33
-----			
Life-Skills: Interpersonal and Social: (Alpha = .59)	77.49	15.82	
9. When you work in a group, you learn from other kids	2.53	.57	.27
14. I try not to make fun of other kids	2.59	.59	.33
18. It feels stupid to give other people compliments	2.51	.69	.19
23. Working with a small group can be difficult, but it is worth it	2.33	.65	.27
32. I try my best to be friendly with all kids in my classroom	2.68	.74	.42
34. You can learn a lot by helping others	2.65	.52	.31
36. I would like to argue less with other kids	2.63	.62	.32
-----			
Conflict-Resolution Skills (Alpha = .48)	79.79	19.92	
12. There are many ways to solve problems other than fighting	2.79	.47	.36
31. When two people disagree, they should fight it out until one person gives in	2.68	.63	.31
38. When I disagree with someone, I talk about my ideas, listen and we solve the problem	2.32	.61	.20
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Table 1 (Continued). Scale Properties of the Student Assessment Survey: Grade Level 4-5

Scale Name	Mean	s.d.	Item-Total Correlation
Intention Not to Use Drugs (Alpha = ?????)	94.41	19.08	
40. Someday, I will smoke cigarettes or drink alcohol	2.89	.36	1.00

Note: Mean = Larger values indicate socially desirable responses. Each scale has a range of 0 - 100. Each scale item has a range of 1 - 3.

**Validity:**

Validity test pertaining to these scales is accomplished using construct validity test. Prevention research, especially the work of Botvin, Eng, and Williams (1980), amply testifies that student who are trained with various life and conflict resolutions skills are less likely to abuse drugs than those without these skills. In fact, a significant number of state-of-the-art prevention strategies are based on this paradigm. Accordingly, it is hypothesized that life skill and conflict resolutions scale scores of those who intend to use drugs will be lower than those who do not intend to use drugs in the future.

In order to test these hypotheses, two groups are identified: those who intend to use cigarettes and alcohol in the future and those who do not intend to use these drugs in the future. Table 2 shows that the life skills scale score of the group with no future intention to use drugs is significantly higher than those with the intention to use drugs. Similarly, Table 3 shows that the conflict-resolution scale score of the group with no future intention to use drugs is significantly higher than those with the intention to use drugs in the future.

Table 2. Comparison of Life Skills Scale Scores Between Two Groups With and Without the Intention to Use Drugs in the Future

Group	Number of Cases	Mean	Standard Deviation
With the Intention to Use Drugs	17	70.56	18.87
Without the Intention to Use Drugs	815	78.66	15.37

t = 2.14 (p <.033)

Table 3. Comparison of Conflict-Resolution Scale Scores Between Two Groups With and Without the Intention to Use Drugs in the Future

Group	Number of Cases	Mean	Standard Deviation
With the Intention to Use Drugs	17	63.85	23.79
Without the Intention to Use Drugs	814	81.18	19.05

t = 3.69 (p <.001)

Finally, Table 4 shows the results of a similar construct validity test of classroom environment scale based on two groups of students who perceive themselves as "being made fun of" by other kids and those who do not perceive themselves to be so. Obviously, it is hypothesized that former group of students will have a lower classroom environment scale score than those who belong to the latter group. As shown in Table 4, there is a statistically significant difference between the two groups. The classroom environment scale score pertaining to the group with the perception of "being made fun of" is significantly lower than the group without such perception.

Table 4. Comparison of Classroom Environment Scale Scores Between Two Groups With and Without the Perception of Being Made Fun of by Other Kids

Group	Number of Cases	Mean	Standard Deviation
With the Perception of Being Made fun	156	52.99	22.38
Without the Perception of Being Made Fun	218	70.32	21.93

t = 7.47 (p <.001)

Based on the construct validity tests show in Tables 2-4, it now may be asserted that all our four dependent variables brought into the evaluation design have reasonably good discriminate power demonstrating significant group differences in the hypothesized directions.

#### EVALUATION DESIGN

The evaluation design employed is a quasi-experimental design. In this design both the experimental and control group students were measured with a time interval of about 6-7 months between the tests, i.e., the pre test was administered during October/November 1992 and the post test during May 1993. The subjects for both the experimental and control groups were drawn from 14 schools located in: Grand Rapids, Michigan; Ontario, Canada; Pleasant Hill, Missouri; Norman, Oklahoma; Glencoe, Minnesota; Shortville, New York; Jacksonville, Florida; Coolville, Ohio; Southfield, Michigan; Bakersfield, CA; Cartersville, Georgia; and St. Louis, Missouri. The selection of students were based on a random selection of classroom units and all the students who belong to the selected classroom are measured at pre and post test periods. The students in the control group all came from the same grade levels of the schools where the SFG students came.

#### DATA ANALYSIS PROCEDURE

In determining the treatment effect of the SFG, the following data reduction procedures were implemented: 1) the unit of analysis employed for this evaluation research was each student; 2) four scales enumerated above have been used as the evaluation criteria for the outcome analysis; 3) the final conclusions were made using analysis of covariance (ANCOVA) where post test scale score is used



as the dependent variable, the experimental-control status as the independent (i.e., main effect), and the pretest scale score as the covariant (Anderson, et al., 1980); and 4) all tests are implemented while employing Type I error of .10 using a two-tailed test.

## RESULTS

Initially, 1,049 students participated in the pretest. Of the latter, 14.8 percent (n = 155) were lost due to student mobility, transiency, mismatch between pre and post test, logistic, and administrative malfunctions. The overall attrition rate observed in this replication is thought to be rather small. The final sample is based on 895 students: 565 students in the experimental and 330 in the control group.

Table 5. Mean Scale Score Changes Between Pre and Post Tests on Four Criterion Variables: ANCOVA Analysis, 14 SFG Sites Oct./Nov. 1992 - May 1993

Scales	Experimental		Control		ANCOVA	
	Pre	Post	Pre	Post	F	P
CLASS ENVIRONMENT	64.38	61.44	64.36	59.90	1.42	.235
s	21.99	20.98	21.95	20.16		
n	565	564	328	329	895	
LIFE SKILLS	77.49	75.93	78.45	73.79	5.23	.022
s	15.82	16.18	16.19	16.47		
n	564	558	329	328	895	
CONFLICT-RESOLUTION SKILLS	79.79	78.83	79.90	76.70	2.98	.084
s	19.92	20.61	20.07	18.97		
n	563	561	329	329	895	
INTENTION NOT TO USE DRUGS	94.41	93.69	95.30	94.55	0.29	.588
s	19.08	20.01	16.56	19.11		
n	564	563	330	330	895	

s: Standard deviation

n: Sample size for each subgroup

As shown in Table 5, the final outcome analysis is based on ANCOVA F test. It also shows that all four scales have deteriorated between pre and post test period both in the experimental and control groups. Of the four F tests, it may be observed that two have shown positive results with statistical significance observed at the .10 level or higher, i.e., scales on life skills and conflict-resolution skills. As such, it now may be concluded that the SFG 4-5 as replicated by the participating schools during 1992-93 has been successful in retaining students' life skills and conflict-resolution skills when compared to the students in the control group.

However, the program was not able to produce any significant change in the attitudinal domain. Nor has there been any change with regard to the behavioral intention.

## TECHNICAL NOTES

1. This is a report of results obtained during the SFG replication in 14 sites during 1992-93. Later in this report, the shortcomings pertaining to this study are identified. All answers reported in this study are based on self-reports. Most respondents appeared to be quite uninhibited in reporting their feelings even though each student is asked to provide their own name in the survey questionnaire. However, it is not unreasonable to suspect that some unknown proportion of respondents may have a tendency toward under-representing true feelings, while others may have over-represented them. The kind of questions asked in the SAS are in general unobtrusive. Even the very obtrusive, self-reported data on drug use when verified by biochemical and other external sources of information have shown that self-report measures are both valid and reliable estimates of students' drug using behavior (Akers, Massey, Clarke, & Lauer, 1983; Johnston, O'Malley, & Bachman, 1984).

2. This study, unlike many other prevention evaluation studies, has shown a relatively small attrition rate between pre and post tests. Furthermore, the pretest scores pertaining to students in the experimental and control groups were quite comparable even though we have employed a quasi-experimental evaluation design.

Despite these strengths, there were some significant limitations inherent to the study, especially those involving the Student Assessment Survey instrument itself and the attitudinal makeup of students in both the experimental and control groups in the first place. Here, we will list some of the strategies that can be used to improve the sensitivity of the instrument so that the instrument itself may have a better chance to detect changes in attitudinal and skills domains.

3. Nearly one half of the statements included in the Student Assessment Survey instruments were skewed to the extreme ends. That is, student responses were concentrated in either one of the two extreme response types, thereby leaving little room to vary. Here, we need to select statements that have a greater even distribution along each of the three anchor points identified in the response type.

4. The current instrument is all too inclusive in content areas and too ambitious in its scope. It tries to measure a large number of skills, attitudinal, and/or psychological objects with just one or two statements without a concentrated effort to measure a manageable number of objects with as many statements as possible. This resulted in very small Alpha coefficients as reliability observed in this study.

5. The current instrument has three anchor points. According to Samuda (1975), high reliability coefficients may be harder to

establish because these three scores tend to have less variability. It has been shown that the narrower the range of scores, the lower the coefficient of reliability (Wesman, 1952).

6. In the absence of an initial effort to incorporate validity test, we had to devise a construct validity test based on the pre-existing statements available from the existing instrument. This effectively limited our effort to engage in a more rigorous and methodical validity test.

7. Due to three anchor points used for each response type, we were not able to generate clear factor-analytic solutions even with oblique rotations. Numerous factor solutions based on varimax rotations had inconsistent with the presumed factor meanings/loadings.

8. Based on these findings, we recommend a revision of the existing Student Assessment Survey instrument so that a revised instrument may be able to "capture" changes in psychological object more effectively than the current instrument allows. We recommend either scales with five anchor points or a graphic rating scale or, perhaps, a combination of these two methods.

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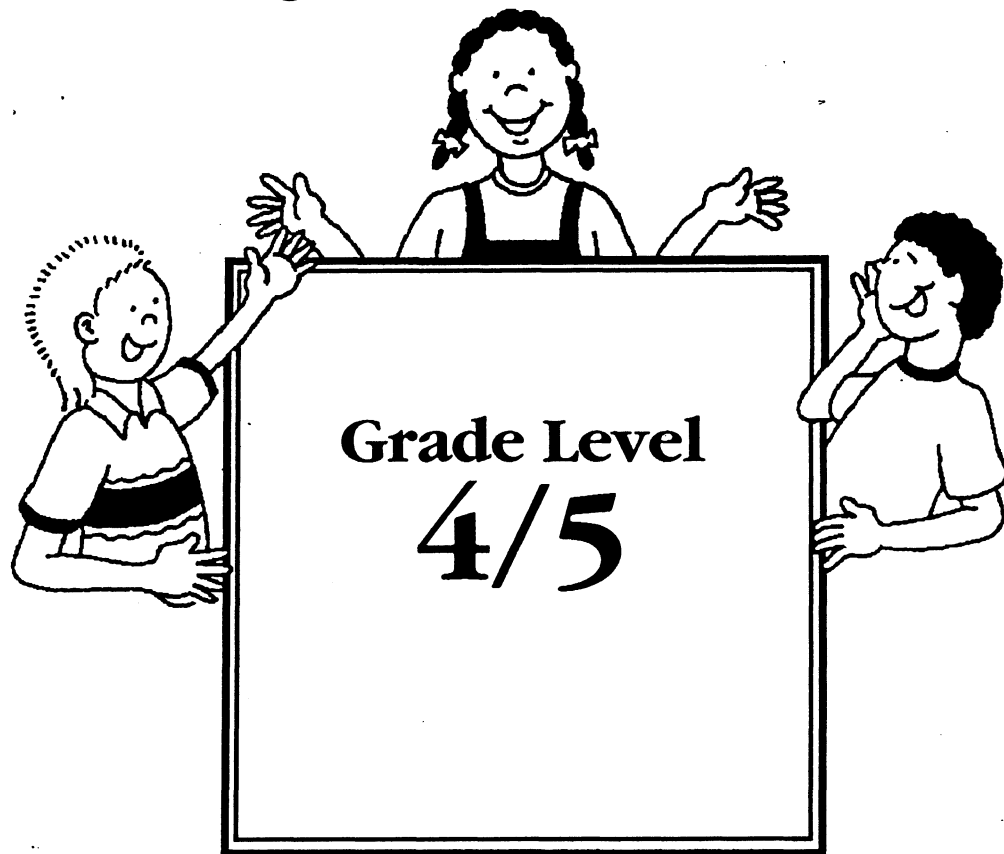
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# Student Assessment Survey



# About Me...

Please put an X in the box below your answer.

I am a:  BOY  GIRL

I am in this grade at school:  4th (fourth)  5th (fifth)

My name is: \_\_\_\_\_  
FIRST NAME

\_\_\_\_\_  
LAST NAME

## Practice Questions

Please put an X in the box below your answer.

**YES** **NO**  
VERY MUCH SOMEWHAT TRUE NEVER

I think this statement is true for me:

**A.** I like to walk in the rain.

**B.** I like to watch the news on T.V.

NEXT PAGE



I think this statement is true for me:

**YES** **NO**  
VERY MUCH NEVER

**SOME** **TRUE**

**1.** My classmates are friendly.

**2.** I want to develop my special talents.

**3.** Good decisions are those which are easiest to make.

**4.** It is always risky to smoke cigarettes.

**5.** It's O.K. to say "no" to friends sometimes.

**6.** I am proud of the things I do.

**7.** I know ways to show people that I am listening to them.

NEXT PAGE





I think this statement is true for me:

YES  
VERY MUCH

SOMEWHAT  
TRUE

NO  
NEVER



8. Kids should be allowed to make some classroom rules.

9. When you work in a group, you learn from other kids.

10. I would like to make my own decisions.

11. Medicines are drugs.

12. There are many ways to solve problems other than fighting.

13. Ads on T.V. speak the truth.

14. I try not to make fun of other kids.

NEXT PAGE



I think this statement is true for me:

YES  
VERY MUCH

SOMEWHAT  
TRUE

NO  
NEVER



15. You must have written rules to make good decisions.

16. The way I treat my body changes how my body works and feels.

17. My classmates treat me with respect.

18. It feels stupid to give other people compliments.

19. I make decisions everyday.

20. Other people cannot always tell me what the best decision is for me.

21. Everyone in my class makes a contribution to the class.

NEXT PAGE



I think this statement is true for me:

YES  
VERY MUCH

SOMEWHAT  
TRUE

NO  
NEVER

22. How I eat now will affect me as an adult.

23. Working with a small group can be difficult, but it is worth it.

24. Children who drink may become alcoholics much faster than adults.

25. I like to talk to my parents.

26. My parents make all my decisions for me.

27. I have many responsibilities.

28. Kids my own age might want me to do harmful things.

NEXT PAGE



I think this statement is true for me:

YES  
VERY MUCH

SOME  
TRUE

NO  
NEVER

29. Kids get along better when there are school rules.

30. Being healthy is mostly a matter of luck.

31. When two people disagree, they should fight it out until one person gives in.

32. I try my best to be friendly with all kids in my classroom.

33. When you are working with others, you can't always expect to get your way.

34. You can learn a lot by helping others.

NEXT PAGE



I think this statement  
is true for me:

**YES**  
VERY MUCH

SOMEWHAT  
TRUE

**NO**  
NEVER



---

**35.** I know several skills for  
making good decisions.

---

**36.** I would like to argue less  
with other kids.

---

**37.** It's always risky to use  
drugs and alcohol.

---

**38.** When I disagree with  
someone, I talk about my  
ideas, listen and we solve  
the problem.

---

**39.** Kids make fun of me.

---

**40.** Someday, I will smoke  
cigarettes or drink alcohol.

Please be sure you answered **all** of the statements.

***Thank You!***

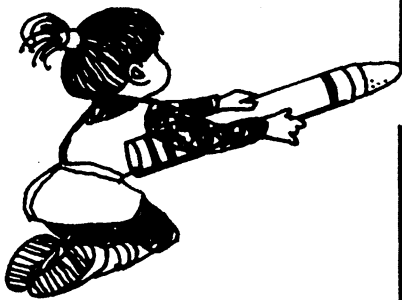
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# Student Assessment Survey

Grade Level

**K/1**



## **Teacher Information and Instructions for Testing**

This checklist is designed to provide indicators of selected social competencies for students. This instrument is intended to be used in a pretest and posttest design to measure changes that might occur in a student's attitude or behavior over the academic year. Only some of these indicators might change as a result of an positive youth development program, such as Lions-Quest, because much of the child's behavior has been and continues to be affected by the home environment.

We are asking you to make your judgment checks on these indicators from your knowledge and observation of the child's behavior in the classroom, school or playground. Please take 5 to 7 minutes to fill out the form for each child in your class. We understand this may mean that you complete the checklists at home or at other quiet times in your day. We sincerely appreciate this extra effort.

*Note:* We will be maintaining strict confidentiality with these assessments. After using the child's name to match the pretest and posttest checklists, we will convert individual information into numerical scores, report only group-level data, and destroy all original checklists where names appear.

# Teacher Checklist of Student's Social Skills

Grade Level K/1

CHILD'S NAME: Last \_\_\_\_\_ First \_\_\_\_\_

Please place an X in the box corresponding to your answer.

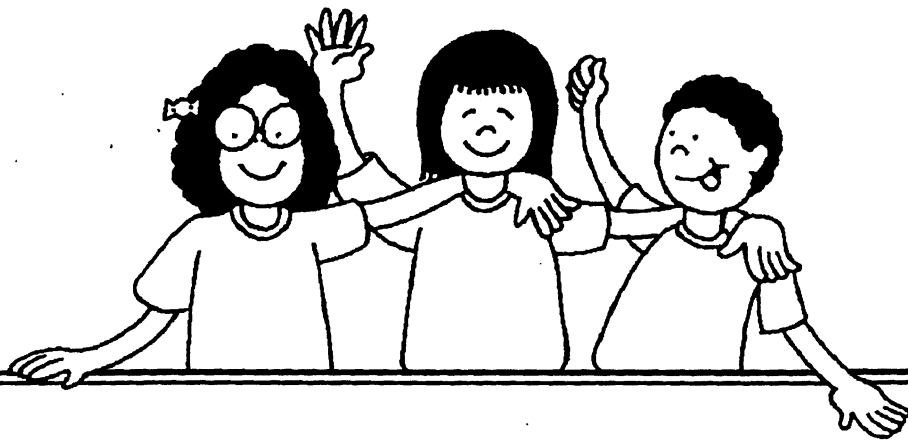
Does this child:	Yes Most Times Very Much	No Occasionally Sometimes	Never Not at all
1. Work and play well with peers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Listen attentively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Respect property of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Follow rules in the classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assume appropriate levels of responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Show consideration for others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Display a positive attitude toward school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Show self-control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Ask for help in an appropriate way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Offer help to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Express anger without hitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Make decisions for self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Express caution about harmful substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Demonstrate some healthy habits of eating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Express compliments to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Respect personality/cultural differences among peers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Appear proud/confident of self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Make friends easily	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Work constructively as a group/class member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Accomplish appropriate tasks on his/her own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Feel comfortable in school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Resist peers' negative influences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Display argumentative behavior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Demand too much attention from peers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Lie/cheat a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Withdraw or cry a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Make fun of/bully other kids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Get teased by other kids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Get in trouble at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Misbehave at home (you've heard from parent or others)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

***Thank You!***

---

# Student Assessment Survey



Grade Level **2/3**

Practic age

# About Me...

Please put an X in the box below your answer.

I am a:  BOY  GIRL

I am in this grade at school:  2nd (second)  3rd (third)

My name is: \_\_\_\_\_  
FIRST NAME  
\_\_\_\_\_  
LAST NAME

## Practice Questions


Please put an X in the box below your answer.

YES VERY MUCH  SOMEWHAT TRUE  NO NEVER

I think this statement is true for me:

A. I like to walk in the rain.

B. I like to watch the news on T.V.

NEXT PAGE 

I think this statement is true for me:

YES VERY MUCH

SOME TRUE

NO NEVER

1. I know how to make good decisions.

2. When two people disagree, they should fight it out until one person gives in.


3. Kids can make decisions which help them be healthy for the rest of their lives.

4. I can decide what kinds of medicines I need to take.

5. I am proud of the things I do.

6. I know how to be responsible.

7. I know the safety rules about using medicines.

NEXT PAGE 



I think this statement is true for me:

YES  
VERY MUCH

SOMEWHAT  
TRUE

NO  
NEVER

8. Ads on TV are always true.

9. Kids make fun of me.

10. I make decisions every day.

11. It's O.K. to say "No" to friends sometimes.

12. Kids my age are too young to make decisions.

13. Cigarettes are full of dangerous chemicals.

14. Drinking too much beer or wine can be harmful, even for grownups.

I think this statement is true for me:

YES  
VERY MUCH

SOME  
TRUE

NO  
NEVER

15. I like to talk to my parents.

16. I like to meet new kids at school.

17. Kids my own age might want me to do harmful things.

18. There is no one exactly like me and that is why I am special.

19. A decision can be helpful or harmful.

20. Every kid in class has some special talents.

21. I wish other people would not smoke.

NEXT PAGE



NEXT PAGE



I think this statement is true for me:

YES  
VERY MUCH

SOMEWHAT  
TRUE

NO  
NEVER

22. Good decisions can be hard to make.

23. I try not to make fun of other kids.

24. I get angry with kids in this class.

25. When you work in a group, you learn from other kids.

26. I wish we didn't have any rules in school.

27. You can learn a lot from helping others.

28. When someone is talking to me, I stop what I am doing and look at that person.

I think this statement is true for me:

YES  
VERY MUCH

SOMEW.  
TRUE

NO  
NEVER

29. Medicines are drugs.

30. My classmates treat me with respect.

31. I might take something from someone without asking.

32. Marijuana hurts your lungs.

33. Someday, I will smoke cigarettes or drink alcohol.

34. Every time you smoke, you hurt your body.

35. Kids can make some classroom rules.

NEXT PAGE



Please be sure you answered **all** of the statements.

***Thank You!***

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