

PRIDE TECHNICAL REPORT

THE PRIDE QUESTIONNAIRE FOR GRADES 4 - 6

Reliability Study

By

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The need for a low cost means for schools and communities to obtain quality information about the prevalence and patterns of drug and alcohol use among adolescents prompted the development of the PRIDE Questionnaire for Grades 6-12. In 1980 field-testing on the PRIDE Questionnaire began. Field-testing and revisions continued until 1982 when the Questionnaire and associated survey procedures were introduced to PRIDE customers. Since 1982, more than seven million students have responded to the PRIDE Questionnaire in communities throughout the United States and in eight foreign countries. The need for quality data on drug and alcohol use is at least as great today as it was in the 1980's.

The PRIDE Questionnaire for Grades 6-12 and the PRIDE Questionnaire for Grades 4-6 (hence forth called the "PRIDE Questionnaire" or "Questionnaire") has been modified over the years to reflect research in this field and the changing informational needs of parents, school officials and other concerned community leaders. Changes in the Questionnaire also reflect the national concerns with drug and alcohol use among school-age students, such as nationally reported "risk factors." In addition to modifications in the Questionnaire form, survey procedures and reporting results have been refined over the years to not only improve the quality of data collected, but to make it more usable to PRIDE clients. Survey procedures include directions for pre-survey preparation, administering the Questionnaires, collecting Questionnaires, and returning the Questionnaires to PRIDE for processing. Reports sent to clients present survey findings in easily understood charts, graphs and "bulleted" statements as well as comprehensive percentage tables.

Metze (2000) authored a PRIDE Technical Report, *The PRIDE Questionnaire for Grades 6-12*. Metze used widely accepted procedures for determining reliability and validity to analyze the data collected by the Questionnaire. Craig and Emshoff's (1987), Craig and Buttler (1989) and Adams (1994) also used these procedures. The current report builds on and supports the work by these authors.

The Questionnaire used for the 1999-00 school years was used for this study. The format has remained almost unchanged since the Questionnaire was introduced almost 20 years ago. The Questionnaire is presented in ten sections; each containing items pertaining to various topics from personal and family demographics to drug use items. This report will address the validity and reliability of the items within each of the sections.

Reliability

As in the previous studies, reliability of the PRIDE Questionnaire and associated survey procedures has been examined utilizing a test-retest procedure.

Data Collection Procedure

In the fall of 1999, a sample of 196 4th – 6th grade students from Nashville, Tennessee, and Newaygo, Michigan was selected to participate in this developmental study. They were administered the PRIDE Questionnaire utilizing PRIDE's standardized instruction procedures two different times approximately one week apart. Teachers in whose classrooms the data were being collected administered the Questionnaire both times. Student responses for the two administrations were paired anonymously using the techniques described in Metzke's (2000) report (See the Appendix).

Prior to scoring and data processing, each Questionnaire was scanned to insure that students had completed all items and there were no stray marks. Questionnaires for students who had been present for only one of the two administrations of the Questionnaire were discarded.

The sample consisted of 52.8 percent males and 47.2 percent females. White students made up 91.7 percent of the sample, black students made up 2.6 of a percent, and students of other ethnic origin represented 5.7 percent.

Statistical Methods Employed

Essentially, test-retest measures of reliability assess the degree to which individuals respond to an instrument the same way on two different occasions. If the same individuals respond

to the same items in the same way on two different occasions, the instrument is considered to be a stable and consistent measure of the information being studied. If an instrument shows test-retest reliability, differences between and among the respondents are likely to be real and not a function of other factors.

Three measures of reliability were computed from the test- retest data: 1) correlation of the test results from the first administration to the results of the second administration, 2) the percent of exact agreement to responses from the first administration compared to the second administration, and 3) the percent of major disagreement from the first administration to the second administration. A correlation coefficient, Pearson's r , was computed for each of the items where appropriate. That is, where the data could be assumed continuous and not categorical. The sub-sample used for correlation analyses consisted of those students who responded to all the continuous items in the Questionnaire.

The percent of exact agreement was computed by determining the percentage of students who responded exactly the same on both administrations of the questionnaire. The maximum was 100 percent. The percent of major disagreement was computed to determine the percentage of students who responded substantially different on the two administrations. This percentage was computed by counting the number of student responses that varied more than one response category on the two administrations. Ideally, the percentage of major disagreement should be zero or near zero.

Results

The results of the test-retest analyses appear in Tables 1 - 10 that follow this discussion. They contain the correlations, percent of exact agreement, and percent of major disagreement for each of the sections.

Section A: Student Information

Responses to items in this section are highly consistent. The percent of exact agreement was above 95.9 percent and the percent of major disagreement less than .5 percent for all of the items. The percent of exact agreement are consistent with findings from the previous developmental studies. Correlations are high (above .9) for all items, further expressing the high reliability among these items. See Table 1 for results.

Section B: Student Characteristics

The items in this section had correlation coefficients ranging from .321 to 1.000. Items 6 – 8 and 10 failed to reach a correlation of .70. However, the percent of exact agreement was above 70% for items 6 & 8, and above 80% for items 7 & 10 indicating a low, but acceptable level of correlation. The Item that had the weakest level of consistency according to the percent of exact agreement and percent of major disagreement was number 9. This item deals party attendance and could easily have changed during the test retest period. This section shows a much higher level of consistency than that found in the Craig and Buttler (1989) study (see the Appendix). Table 2 contains the reliability analyses for Section B.

Section C: Within the Past Year How Often Have You...

Students' responses to items in this section are quite reliable. Correlation coefficients were above .7 for all items except 'Glue, Gas, etc' and 'Other Drugs'. The percent major agreement was above 97 for all items and was above 100 for several; both items with correlation coefficients below .7 had major agreement percentages above 97. Only one item had a percent major disagreement above 0 and that item (#7) only had a major disagreement of .5%. See Table 3 for data from Section C.

Section D: How Many Of Your Friends Use...

Perceived friends' use of the various drug and alcohol categories had high correlation coefficients for cigarette, alcohol, and marijuana use (i.e., above 80%). Items relating to other drug

use had lower, but acceptable, correlation coefficients. All of the items with correlation coefficients below .8 had agreement percentages above .86 and major disagreement percentages below 2.0. These data indicate a higher reliability than was found in the Craig and Buttler (1989) study. Table 4 presents these statistics.

Section E: Do You Think the Following Are Harmful to Your Health

Students were asked to respond to the perceived health dangers of drug use. As was the case in the Craig and Buttler (1989) study, this section was the least reliable. However, the correlations and percent exact agreement data indicate significant agreement between the first and second administration of the Questionnaire. See Table 5 for analysis results.

Section F: Do You Think You Will Ever Use...

The reliability of items used to assess whether students think they will ever use drugs was high. The percentage of exact agreement for all items in this section exceeded 81. The items in this section can be used with confidence that they will produce consistent results. See Table 6 for results from this section.

Section G: How Easy Is It For Kids Your Age To Get...

When students were asked how easy it was to get drugs, the reliability of the items was somewhat lower than other sections. As may be seen in Table 7, correlations for this section were moderate and ranged from .62 to .728 and exact agreement ranged from 65.7% to 72.6%. This section had low, but somewhat higher, major disagreement percentages which ranged from 2.6% to 4.5%.

Section H: While at School Have You...

As may be seen in Table 8, all of the items in this section had an exact agreement of 70 percent or more. The correlation coefficients for this section are very high for the items that asked about drug use. It is interesting that reliability estimates for aggression are much lower than for

drug use. These items have correlations below .7. However, these items have measures of exact agreement above 82%. The items in this section may be used with a high degree of confidence that they will be reliable.

Section I: While Not at School Have You...

As may be seen in Table 9, the items in this section parallel those in the section about drug use at school. While all of the items had exact agreement percentages above 81, the correlations for items related to aggression are somewhat lower than those dealing with drug use and the major disagreement percentages were higher for items related to aggression than those related to drug use.

Section J: Is It OK For Kids My Age To...

The percent of exact agreement percentages for this section were all above 97. The percentage of major disagreement was 0 for all items. These data indicate that the items in this section are highly reliable. See Table 10 for data about students' perceptions of whether it is OK to use various drugs.

Summary

Reliability indices indicated all sections of the PRIDE Questionnaire produced reasonable and acceptable consistency of response. These results indicate that the PRIDE Questionnaire for Grades 4-6 is a reliable instrument for use in school surveys and may be used as indicators of prevalence of present and future use of drugs by these students. These findings were confirmed by earlier developmental studies.

Table 1
Reliability Estimates for Section A:
Student Information

<u>Item</u>	<u>Correlat</u>	<u>% Exact</u>	<u>% Major</u>
		<u>Agreement</u>	<u>Disagreement</u>
1. Sex	1.000	100.0	0.0
2. Grade	1.000	100.0	0.0
3. Race	0.904	99.5	0.5
4. Age	0.978	95.9	0.0

Table 2
Reliability Estimates for Section B:
Student Characteristics

<u>Item</u>	<u>Correlation</u>	<u>% Exact</u>	<u>% Major</u>
		<u>Agreement</u>	<u>Disagreement</u>
1. I Make Good Grades	0.774	89.2	0.0
2. I Get Into Trouble At School	0.733	85.5	0.0
3. I Go To Church Or Synagogue	0.877	93.4	1.5
4. I Talk To My Parents About My Problems	0.706	82.6	0.0
5. My Parents Talk To Me About The Dangers Of Drugs	0.734	79.8	0.5
6. My Teachers Talk To Me About The Dangers Of Drugs	0.594	74.1	1.0
7. My Parents Make Me Follow Certain Rules	0.601	81.3	0.5
8. I Have To Be Home At A Certain Time	0.672	73.9	1.1
9. I Go To Parties	0.321	73.6	5.7
10. I Am Alone At Home	0.810	87.5	0.0
11. The Kids At School Like Me	0.603	80.5	0.0
12. I Fell Lonely	0.741	80.9	0.0

Table 3
Reliability Estimates for Section C:
Within The Past Year How Often Have You Used

<u>Item</u>	<u>Correlation</u>	<u>% Exact</u>	<u>% Major</u>
		<u>Agreement</u>	<u>Disagreement</u>
1. Cigarettes	1.000	100.0	0.0
2. Chewing Tobacco, Snuff	1.000	100.0	0.0
3. Beer	0.877	98.4	0.0
4. Wine Coolers	0.837	98.4	0.0

5. Liquor	0.703	99.0	0.0
6. Marijuana	1.000	100.0	0.0
7. Glue, Gas, etc.	0.568	97.4	0.5
8. Other Drugs	0.574	99.0	0.0

Table 4
Reliability Estimates for Section D:
How Many Of Your Friends Use

Item	Correlation	% Major	
		Agreement	Disagreement
1. Cigarettes	0.761	95.3	0.0
2. Chewing Tobacco, Snuff	0.534	97.4	0.0
3. Beer	0.778	94.8	0.0
4. Wine Coolers	0.579	93.3	0.0
5. Liquor	0.534	97.4	0.0
6. Marijuana	0.603	97.9	0.0
7. Glue, Gas, etc.	0.567	93.7	0.0
8. Other Drugs	0.527	97.4	0.0

Table 5
Reliability Estimates for Section E:
Do You Think The Following Are Harmful To Your Health

Item	Correlation	% Major	
		Agreement	Disagreement
1. Cigarettes	0.512	76.2	1.0
2. Chewing Tobacco, Snuff	0.534	75.9	1.0
3. Beer	0.620	77.0	1.0
4. Wine Coolers	0.532	67.9	1.6
5. Liquor	0.591	73.9	0.5
6. Marijuana	0.509	82.0	1.6
7. Glue, Gas, etc.	0.552	74.1	1.6
8. Cocaine/Crack	0.471	81.8	1.6
1. Cigarettes	0.512	76.2	1.0
2. Chewing Tobacco, Snuff	0.534	75.9	1.0
3. Beer	0.620	77.0	1.0
4. Wine Coolers	0.532	67.9	1.6

Table 6
Reliability Estimates for Section F:
Do You Think You Will Ever Use

Item	Correlation	% Exact	% Major
		Agreement	Disagreement
1. Cigarettes	0.735	92.2	1.0
2. Chewing Tobacco, Snuff	0.566	96.9	0.5
3. Beer	0.742	81.6	1.6
4. Wine Coolers	0.759	81.4	1.1
5. Liquor	0.716	88.4	1.1
6. Marijuana	0.543	98.4	1.0
7. Glue, Gas, etc.	0.675	96.3	1.6
8. Cocaine/Crack	0.772	97.9	0.0
9. Other Drugs	0.649	95.8	0.0

Table 7
Reliability Estimates for Section G:
How Easy Is IT For Kids Your Age To Get

Item	Correlation	% Exact	% Major
		Agreement	Disagreement
1. Cigarettes	0.674	66.5	3.7
2. Chewing Tobacco, Snuff	0.620	67.7	2.6
3. Beer	0.728	72.6	3.8
4. Wine Coolers	0.635	65.7	4.5
5. Liquor	0.667	72.0	3.8
6. Marijuana	0.621	71.3	2.7

Table 8
Reliability Estimates for Section H:
While AT School Have You

Item	Correlation	% Exact	% Major
		Agreement	Disagreement
1. Smoked Cigarettes	1.000	99.5	0.0
2. Drunk Beer, Wine Coolers or Liquor	1.000	99.5	0.0
3. Smoked Marijuana	1.000	100.0	0.0
4. Sniffed Glue, etc.	0.505	96.3	1.1

5. Been Afraid A Student Will Hurt You	0.439	74.9	5.3
6. Been Threatened By A Student	0.522	73.3	7.5
7. Been Hurt By A Student	0.631	77.5	3.7
8. Been Hurt By An Adult	0.423	95.7	0.5

Table 9
Reliability Estimates for Section I:
While NOT AT School Have You

Item	Correlation	% Exact	% Major
		Agreement	Disagreement
1. Smoked Cigarettes	0.896	97.9	0.0
2. Drunk Beer, Wine Coolers or Liquor	0.695	92.6	1.1
3. Smoked Marijuana	0.664	98.9	0.5
4. Sniffed Glue, etc.	0.648	96.3	0.5
5. Been Afraid A Student Will Hurt You	0.456	83.3	5.2
6. Been Threatened By A Student	0.567	82.3	5.7
7. Been Hurt By A Student	0.488	81.6	7.9
8. Been Hurt By An Adult	0.703	94.2	2.1

Table 10
Reliability Estimates for Section J:
Is It OK For Kids My Age To

Item	Correlation	% Exact	% Major
		Agreement	Disagreement
1. Smoke Cigarettes	-0.008	98.4	0.0
2. Drink Beer	0.745	98.9	0.0
3. Drink Wine Coolers	0.569	98.4	0.0
4. Drink Liquor	-0.008	98.4	0.0
5. Smoke Marijuana	1.000	98.9	0.0
6. Steal Something If You Need It	-0.008	98.4	0.0
7. Sell Drugs If You Need The Money	1.000	99.5	0.0
8. Carry A Gun For Protection	0.275	97.4	0.0
9. Take What You Want, Even If It Means Hurting Someone	1.000	98.9	0.0
10. Beat Up Another Student If It Is A Fair Fight	0.647	95.8	0.0
