

ELSS612

S3L4

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Selection of statistics



*Summated rating
scales:*

Internal consistency



Figure 1. Bullying Perception Survey—10.

Bullying Perception Survey—10 (BPS-10)					
Instructions: This survey is designed for teachers and administrators in K–12. We are interested in your perceptions related to different aspects of bullying. For each item below, please check the box that best reflects your answer. Thank you for participating.					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Educators play a large role in bullying prevention.					
2. Bullying prevention should be part of the elementary school curriculum.					
3. Bullying prevention should be part of the middle school curriculum.					
4. Bullying prevention should be part of the high school curriculum.					
5. I have received adequate professional development on bullying prevention.					
6. I am interested in receiving more professional development on bullying prevention.					
7. Bullying prevention should be provided for current teachers and administrators.					
8. Bullying prevention should be provided for preservice teachers and administrators.					
9. I feel confident confronting the parents of a bully.					
10. I feel confident meeting with the parents of a victim.					



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 - Multidimensional Scaling (ALSCAL)...
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- Survival
- Multiple Response

S Statistics Data Editor

var	var	var	var	var

Reliability Analysis

Items:

- gender
- school
- score
- score2

Model: Alpha

Scale label:

Reset Paste Cancel OK

Reliability Analysis: Statistics

Descriptives for

- Item
- Scale
- Scale if item deleted

Inter-Item

- Correlations
- Covariances

Summaries

- Means
- Variances
- Covariances
- Correlations

ANOVA Table

- None
- F test
- Friedman chi-square
- Cochran chi-square

Hotelling's T-square

Intraclass correlation coefficient

Tukey's test of additivity

Model:

Type:

Confidence interval: %

Test value:



Internal reliability and Cronbach's alfa

Individual item and total (other items together) correlation. Check close to zero and negative coefficients! They are causing internal consistency problems.

From here you see how the alfa value changes if the item is deleted. A large improvement suggests that the item is not a good candidate to the sum score.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
a	21,0000	9,556	,575	,255
b	21,0000	9,556	,330	,336
c	21,4000	12,489	,208	,419
d	21,2000	11,289	,126	,441
e	21,1000	7,211	,621	,122
f	20,9000	13,656	-,169	,554
g	21,3000	11,567	,232	,399
h	20,8000	13,511	-,154	,553

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24,1000	13,433	3,66515	8

Item f is removed.

It is better to remove one item at a time and check the result. In practice, it is difficult to decide whether to keep the item or remove it if you have a scale that is developed by others: you may lose opportunities to compare your results with the earlier ones. On the other hand, a non-reliable sum score gives error risk results.

Reliability Statistics

Cronbach's Alpha	N of Items
,554	7

Reliability Statistics

Cronbach's Alpha	N of Items
,714	6

Items f and h are removed.

