ELSS612 S3L4

University of Jyväskylä Markku Leskinen, PhD

Selection of statistics

Institute of Educational Leadership

Summated rating scales:

Internal consistency

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Figure 1. Bullying Perception Survey-10.

Bullying Perception	Survey—10	(BPS-10)			
Duilying reception	Survey—re	(010-10)	,		
Instructions: This survey is designed for teachers and a	dministrator	rs in K–12	2. We are ir	nterested in y	your percep-
tions related to different aspects of bullying. For each	item below,	please cl	heck the bo	ox that best	reflects your
answer. Thank you for participating.					· · ·
	Strongly	Agree	Neutral	Disagree	Strongly
	Agree				Disagree
 Educators play a large role in bullying prevention. 					
Bullying prevention should be part of the elemen-					
tary school curriculum.					
Bullying prevention should be part of the middle					
school curriculum.					
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 de-					
velopment on bullying prevention.					
7. Bullying prevention should be provided for current					
teachers and administrators.					
8. Bullying prevention should be provided for preserv-					
ice teachers and administrators.					
9. I feel confident confronting the parents of a bully.					
10. I feel confident meeting with the parents of a vic-					
tim.					

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Analyze	Direct Marketing	Graphs	Utilities	Add-ons	Window	Help	(;	۲
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O O Reliability Analys	sis: Statistics
Descriptives for	Inter-Item
✓ Scale ✓ Scale if item deleted	Covariances
Summaries	ANOVA Table
Variances	○ F test
Covariances	 Friedman chi-square Cochran chi-square
 Hotelling's T-square Intraclass correlation coefficient 	Tukey's test of additivity
Model: Two-Way Mixed 🗘	Type: Consistency 🗘
Confidence interval: 95 %	Test value: 0
?	Cancel

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.

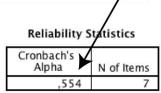
1

Item-Total Statistics				K
	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

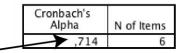
Scale Statistics

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

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 opportunites to compare your results with the earlier ones. On the other hand, a nonreliable sum score gives error risk results.



Reliability Statistics



Items f and h are removed. Item f is removed.

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