



Developing and Validating the Teachers' Interactions in Primary School Questionnaire (TIPS-Q): Factor Analysis Results

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Objective

While various questionnaires exist on bullying among students, there exist no psychometrically validated tool to assess teachers' perceptions, attitudes and willingness to intervene in bullying incidents. The first step in conducting sound investigations with respect to bullying research involving teachers is the development of a validated and standardized questionnaire for use in research.

Background

Bullying is a critical event that happens at school. Teachers often do not notice or respond to bullying incidents¹. More specifically, teacher's avoidance of or lack of response to students' violent behaviors are associated with higher levels of peer victimization¹ than students in skillfully managed classrooms, one of the most helpful anti-bullying strategies². Teachers can play a pivotal role in creating positive school environments that discourage bullying or negative environments that encourage bullying and potentially lead to significant mental health outcomes in both bullies and victims. In a recent study, teachers' gender, perceived hostile school climate, and own childhood experiences influenced their responses to bullying³. Teachers tended to intervene less with bullies of a different ethnicity than their own. Thus, it is vital to examine teachers' perceptions, willingness to intervene, and knowledge of the effects of bullying and victimization among their students. There exists no psychometrically validated questionnaire with respect to perceptions, attitudes and willingness to intervene in bullying incidents for teachers.

Methods

TIPS-Q was developed for elementary and middle school teachers and consists of 36 questions including 25 multiple choice questions and 11 rating scale questions. Development of the initial questions were based on a pilot study of 22 elementary public school teachers in San Jose, California to determine face validity as well as a review of the current literature of teachers' attitudes and responses to bullying incidents. Questions included: knowledge of the effects of bullying and victimization, characteristics of bullies and victims, and willingness and support around student bullying prevention for teachers. TIPS-Q was administered through a custom, anonymous electronic survey via a link that was emailed to teachers directly. Participants were 328 teachers from 22 elementary and 4 middle schools within Lawton Public School System, Oklahoma.

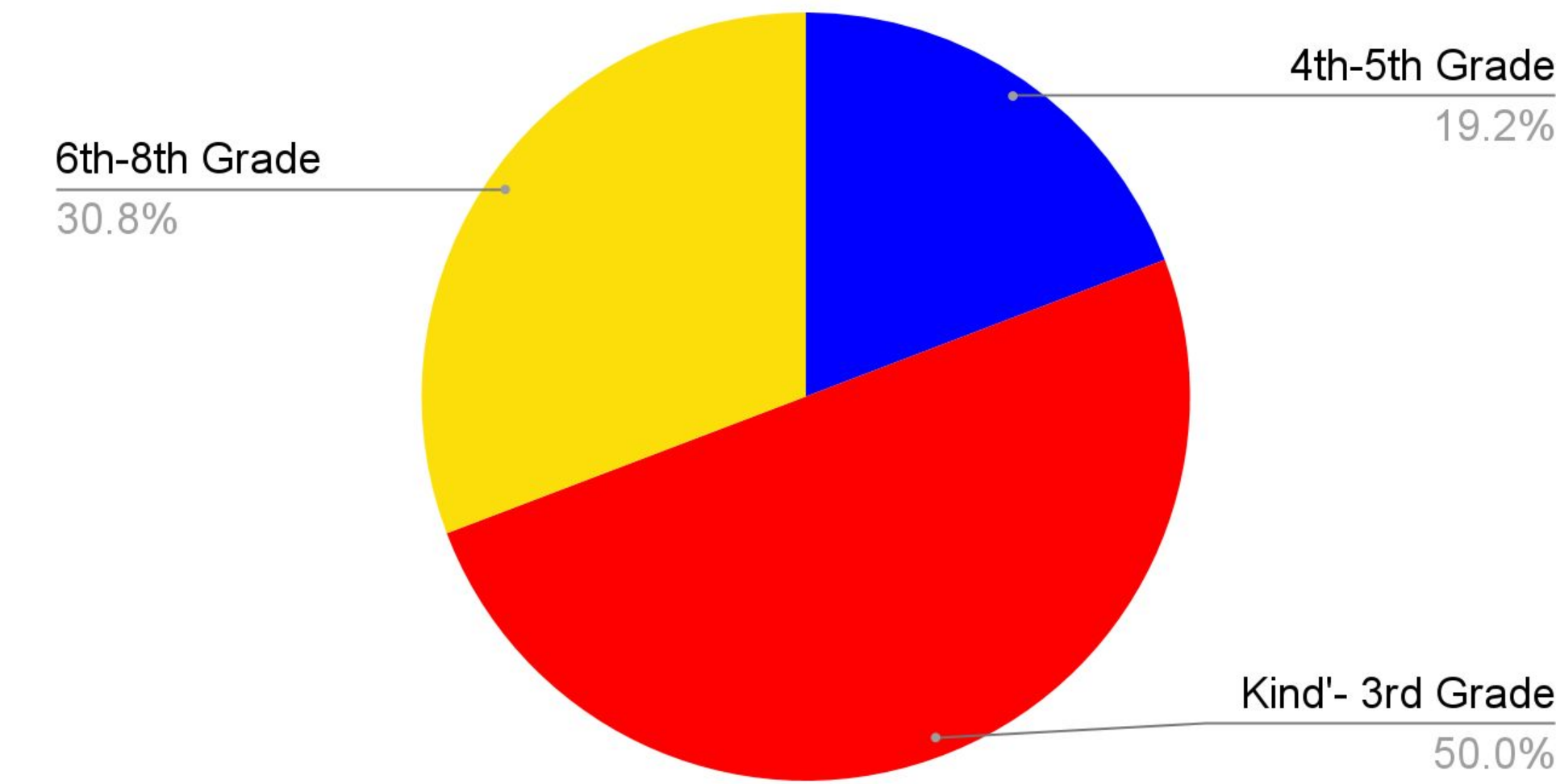
For the first step of questionnaire validation, exploratory factor analysis (EFA) was performed. Scree plot analysis determined that a six factor solution was appropriate for the questionnaire. Items on the questionnaire that did not load significantly on any factor were removed. In addition, items that loaded significantly on more than one factor were excluded from the analysis if there was not a clear logical factor grouping for these items. This resulted in the removal of 9 questions. After item removal, factor analysis was repeated to generate final results. Squared multiple correlations were used for prior communality estimates. Promax (oblique) rotation was used to determine factor loadings.

Results

Data from 328 questionnaires were analyzed. Teacher demographics included: 164 teachers from kindergarten through 3rd grade, 63 teachers from 4th and 5th grades and 101 teachers from 6th through 8th grade. Initial factor analysis of the survey is presented herein, and reveals a six factor solution including: willingness to intervene, bullying traits, knowledge, personal experiences of school bullying, victim traits, and bullying perceptions.

Results - Continued

Demographics of Teachers



TIPS-Q Questions

1	What grade do you currently teach (if combo class select lowest grade)?
2	How many academic years have you been teaching?
3	Is teaching your first profession?
At which type of schools have you EVER taught? (Check all that apply)	
4a	Public
4b	Private
4c	Charter
5	What percentage of middle and high school students report being bullied or victimized on a weekly basis?
6	How do rates of bullying and victimization of USA students compare with other developed countries?
7	What mental health outcome is associated with being victimized?
8	Of the following, which group has the highest risk for problems (mental health or otherwise) as they become adults?
9	Between ages 9 and 16 years, which sex is bullied more often?
10	What percentage of elementary and middle school students have experienced some type of cyberbullying?
11	What percentage of students do YOU think are BULLIES?
12	What percentage of students do YOU think are VICTIMS?
13	How often have you witnessed bullying among students? (move line to appropriate spot)
14	How often have you been told about bullying or suspected that a student was being bullied? (move line to appropriate spot)
15	When do you think most bullying occurs?
16	Where do you think most bullying occurs?
17	There is enough supervision during lunch and recess at my school:
18	I think bullying and victimization is a serious problem at my school:
19	I feel confident in my ability to help students who are bullies or who have been victimized:
20	I am familiar with the most effective, scientific ways to deal with bullying and victimization:
21	I am willing to give up some of my lunch breaks if it would decrease bullying and victimization:
22	I am willing to give up some of my recess breaks if it would decrease bullying and victimization:
23	I am willing to give up some of my free time if it would decrease bullying and victimization:
24	If my school already has a program to address bullying/victimization, I think it is effective:
25	I would like to see the PTO dedicate resources to a program to decrease bullying and victimization:
The following are characteristics of BULLIES, VICTIMS, BOTH or NEITHER:	
26	Physically strong
27	Poor self-esteem
28	Defiant
29	Hot temper
30	Does not listen to others
31	Has few friends
32	Popular
33	Frequently in trouble
34	Poor grades
35	Quiet or shy
36	From minority ethnic group at school

Scree Plot Analysis

	Willingness	Bully Traits	Knowledge	Personal Experience With Bullying	Victim Traits	Bullying Perceptions
Q1	-0.101	-0.046	-0.263	0.287	0.006	0.732
Q5	0.065	0.079	0.669	-0.050	0.033	-0.259
Q10	0.074	0.008	0.763	0.013	-0.017	0.034
Q11	0.004	-0.031	0.691	0.218	-0.070	0.011
Q12	0.077	-0.030	0.794	0.183	0.047	-0.012
Q13	0.062	0.086	0.248	0.716	-0.197	0.079
Q14	0.051	0.144	0.238	0.614	-0.175	0.000
Q15	-0.124	0.041	0.196	-0.443	-0.048	0.276
Q16	-0.001	0.067	-0.012	-0.187	-0.023	0.808
Q18	0.023	0.044	0.096	0.753	-0.108	0.130
Q20	0.296	0.177	0.056	-0.187	-0.154	0.121
Q21	0.898	-0.044	0.020	0.031	0.034	-0.112
Q22	0.913	0.000	0.074	-0.003	-0.031	-0.155
Q23	0.882	-0.017	0.028	0.023	0.057	-0.087
Q24	0.334	0.104	0.002	-0.572	-0.242	0.158
Q25	0.592	-0.145	0.109	0.121	0.130	0.200
Q26	-0.076	0.349	0.013	0.008	0.178	0.008
Q27	0.064	0.174	-0.020	-0.028	0.428	0.063
Q28	-0.037	0.655	0.024	0.059	-0.018	-0.039
Q29	0.041	0.687	0.049	0.033	0.014	0.076
Q30	-0.046	0.640	0.066	0.068	0.045	0.123
Q31	0.006	0.153	0.013	-0.106	0.934	-0.064
Q32	0.006	0.153	0.013	-0.106	0.934	-0.064
Q33	0.050	0.691	0.015	-0.006	0.065	-0.098
Q34	0.125	0.465	-0.075	0.037	0.197	-0.002
Q35	-0.062	0.519	-0.005	-0.037	0.107	0.019
Q36	-0.076	0.302	-0.156	-0.217	-0.058	-0.109

Conclusion

TIPS-Q is one of the few questionnaires evaluating teachers' knowledge, perceptions and willingness to intervene. Initial findings suggest six valid factors for TIPS-Q. Once reliability testing is performed, TIPS-Q may be the first statistically valid tool for use in studies on teachers and bullying.

References

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