

2023

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Trauma-Informed Schools Questionnaire

**Construct Validity and
Internal Consistency Analysis**

*Prepared by Statistics in the Community
at the University of Michigan*



Executive Summary

Starr Commonwealth has partnered with Statistics in the Community (STATCOM) to test the reliability and validity of its Trauma Informed Schools Questionnaire (TISQ), which measures school staff members' perceptions of the frequency to which they individually, and their school collectively, exhibit trauma-informed, resilience-focused knowledge and behaviors.



A majority of respondents stated that, for 27 out of the 30 TISQ items, their school was achieving trauma-informed, resilience-focused benchmarks.



A construct validity analysis suggests that the 30 TISQ items measure trauma-informed, resilience-focused knowledge and behaviors with the ten valid subscales.



A reliability analysis indicates that the overall TISQ has high internal consistency (94.3%), with consistency for the ten subscales ranging from 60.6% to 84.4%.

This report contains a more detailed summary of STATCOM's external validation analysis of the TISQ instrument, including results from our reliability and validity tests.

TISQ Overview

The TISQ is self-administered to school staff members including, but not limited to, administrators, instructors, staff, and non-instructional staff. The questionnaire consists of 30 items, and responses are collected on a scale from 1 to 5 corresponding to 'never' and 'always,' respectively. There are also qualitative questions for responders to answer. There are 10 TISQ subscales that make up the overall TISQ:

1. **Focus on Resilience**
2. **Understand Trauma as an Experience**
3. **Foster Connections**
4. **Prioritize Social and Emotional Skill Development**
5. **Establish Safety**
6. **Promote Play and Breaks**
7. **Believe the Link Between Private Logic and Behavior**
8. **Partner with Families and Community**
9. **Support and Invest in School Staff**
10. **Collect and Utilize Outcome Data**

Subscale averages range from 1-5, which determine whether schools are in one of three phases of a trauma-informed, resilience-focused journey:

1



2



3

Discovering: 1.0 – 2.32

Exhibiting trauma-informed, resilience-focused knowledge and behaviors less frequently or not at all.

Evolving: 2.33 – 3.64

Exhibiting trauma-informed, resilience-focused knowledge and behaviors with some frequency.

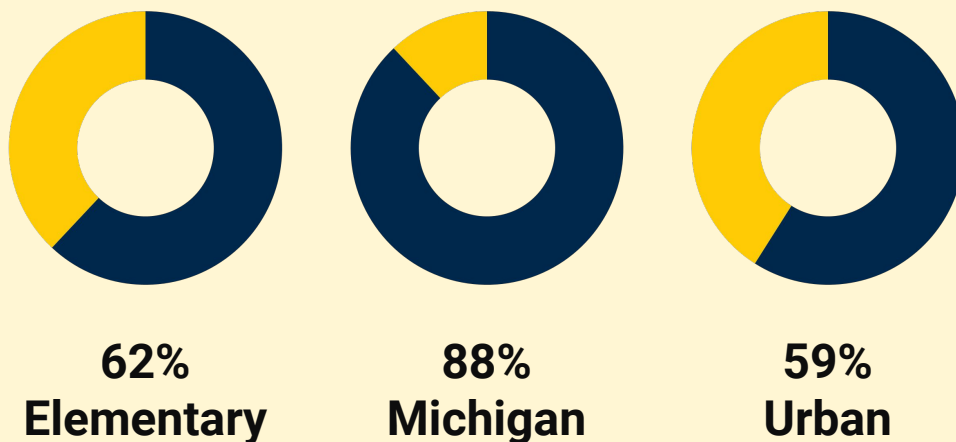
Flourishing: 3.65 – 5.0

Exhibiting trauma-informed, resilience-focused knowledge and behaviors consistently or all of the time.

Data Overview

STATCOM analyzed responses collected from September 2020 to January 2022. In this time period, the TISQ was implemented in 46 school buildings across seven school districts. There were 1,493 individuals with at least one response to any of the 30 TISQ items and 1,382 individuals (92.6%) with responses to all 30 TISQ items.

The majority of participating school buildings were elementary schools (62%), in Michigan (88%), and in cities (59%). Further, the median total enrollment was 330 (IQR: 283, 555) and median staff count was 46 (IQR: 31, 82) for a median student/teacher ratio of 11.8 (IQR: 9.2, 14.8).



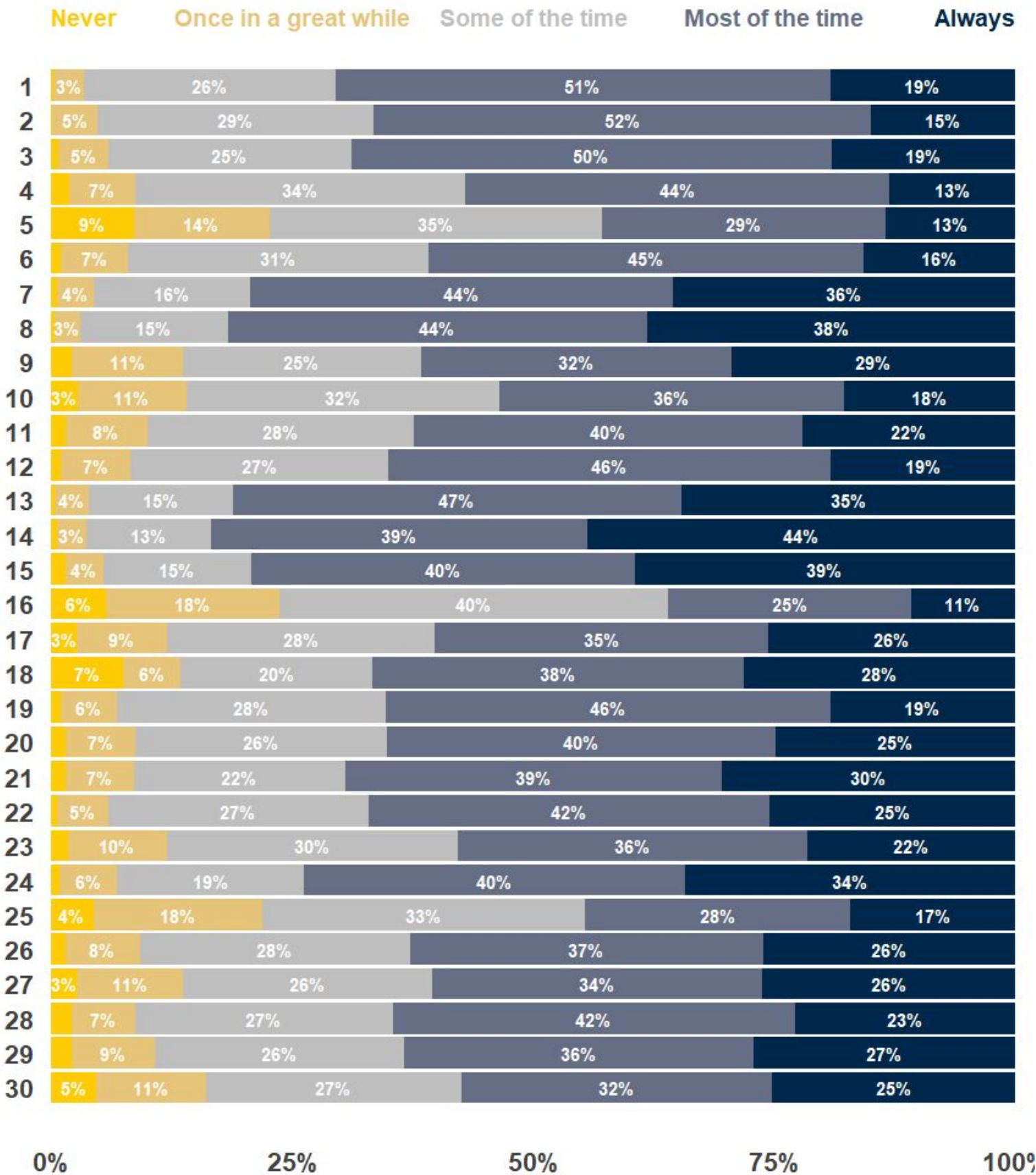
A majority of respondents state that, for 27 out of the 30 TISQ items, their school was achieving their trauma-informed, resilience-focused benchmarks, with more than 50% of respondents choosing “most of the time” or “always” for these items. The three TISQ items which scored lower, on average, were:

- Item 5: My school uses trauma screening tools with students
- Item 16: My school builds play-based activities into learning
- Item 25: My school supports staff with opportunities for self-care

Overall TISQ response results are given on the next page →

Overall TISQ Results

Summary responses to 30 quantitative TISQ items, ranging from 'never' to 'always'





Validity Analysis

Assessing the validity of the TISQ involves asking the question, “Does an instrument *actually measure (only) what it purports to measure?*” The TISQ is intended to provide a “measure of [a] school’s trauma-informed practices, highlighting strengths, while identifying areas where [a] school can add strength-based practices to become more trauma-informed and resilience-focused.”



STATCOM conducted a validity analysis by performing *exploratory* and *confirmatory* factor analysis, a statistical technique to describe the variation in TISQ responses.



Exploratory analysis results supported theoretical expectations that TISQ items align with their intended subscales, explaining 75.7% of the variation in responses.



Confirmatory analysis determined which items should belong to which subscales, with the TISQ structure *fitting* well to the data collected from respondents.

These results suggest that the TISQ measures what it intends to measure. The TISQ items contribute to a measure of trauma-informed, resilience-focused knowledge and behaviors, with ten valid subscales.

Reliability Analysis

Reliability asks the question, “are the items of the TISQ *consistent with one another/measuring the same thing*.” This the extent to which the subscales capture the *10 Steps to Create a Trauma-Informed, Resilient School*. Values range from 0-100% with 0 meaning no variation in TISQ responses can be explained by the TISQ items and 100% meaning all variation in responses can be explained. The TISQ had an estimated reliability of 94.3%, and the subscales had estimates from 60.6-84.4%.

How to interpret these results?

While there is no rule-of-thumb threshold, these results suggest that TISQ and its subscales are consistent. Shorter scales often have lower reliability estimates. The subscales each have 3 items, as compared to the 30-item overall scale. This may be preferable, as longer subscales have a higher burden to administer. Scales that are more focused have higher reliability estimates. The subscales are meant to measure specific steps to creating a trauma-informed, resilient school, so it is expected that the subscale reliabilities will be higher than if the subscales measured broader constructs.

Scale	Internal Consistency	95% Confidence Limits
Overall Scale	94.3%	93.9 - 94.8%
Subscales	-	-
Subscale 1	73.6%	71.3 - 75.9%
Subscale 2	76.2%	74.0 - 78.3%
Subscale 3	74.3%	72.0 - 76.5%
Subscale 4	84.4%	83.0 - 85.8%
Subscale 5	70.8%	68.2 - 73.3%
Subscale 6	60.6%	57.1 - 64.1%
Subscale 7	74.1%	71.8 - 76.4%
Subscale 8	80.3%	78.6 - 82.1%
Subscale 9	77.3%	75.3 - 79.3%
Subscale 10	79.7%	77.9 - 81.5%

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About STATCOM

STATCOM is a community outreach program that offers the expertise of graduate students, free of charge, to non-profit government and community organizations in the areas of data organization, analysis, and interpretation. We are able to provide advice and assistance on a wide variety of statistical issues, including survey/sample design and analysis, graphical and statistical methods of summarizing and presenting data, interpretation of survey results, development of statistical models, trends analysis, and more. If you have data needs, we may be able to help!

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