

## Measuring mathematics anxiety: Paper 2 - Constructing and validating the measure

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### Abstract

The study sought to measure mathematics anxiety and this required testing the assumptions in the *Situational model of mathematics anxiety* (see *Measuring mathematics anxiety: Paper 1 - Developing a construct model*). Specifically:

1. Can a linear scale of mathematics anxiety be constructed (data fits the Rasch model)?
2. Are the distributions of scores for different types of mathematics anxiety different? and
3. Is the theorised order of the anxiety indicators consistent with the ordering of the anxiety scores?

Two forms of a questionnaire were constructed. One elicited information on anxiety when working in a class group and the other on anxiety when completing a test. Both forms comprised the same items in the same order. Six items were written for attitudinal indicators, nine for cognitive indicators and six for somatic indicators. Each form was given to a sample of 50 Year 5 to 7 primary school students. Students responded to the 21 items on a four point Likert-type response scale. The Rasch Rating Scale model and the computer program RUMM2020 were used for scaling and generating displays and estimations to answer the research questions.

After an iterative refinement process, data from 13 items fitted the Rasch Rating Scale model making it possible to plot item difficulty locations and student anxiety scores on the same scale. This showed the students tended to be reluctant in their affirmation of the anxiety indicators.

The empirical results were used to refine the construct model. The new model acknowledged that mathematics anxiety can arise in any situation in which mathematical skills and knowledge are required. The indicators of anxiety were proposed as common for all situations and the relative 'severity' of the indicators was also assumed to not vary across situations. Three types of indicators were specified - attitudinal, cognitive and somatic. Examples of these indicators were provided for high, moderate and low levels of anxiety. For each level there was a combination of the three different types of indicators.

## Measuring mathematics anxiety: Paper 2 - Constructing and validating the measure

### Background

Cavanagh and Sparrow (2010) reviewed the literature on mathematics anxiety in order to develop a construct model of the phenomenon. The review revealed that many of the existing models were multi-dimensional and had differing content and structure. The analytic tools used to validate such models were typically factor analytic and correlational. The use of such tools for the construction of measures has been criticised and using the Rasch model and Modern Measurement Theory have been proffered as better alternatives (Bond & Fox, 2007; Romanoski & Douglas, 2002; Wright & Linacre, 1989). After considering the application of Modern Measurement Theory in the development of an objective measurement of mathematics anxiety, Cavanagh and Sparrow (2010) developed the *Situational model of mathematics anxiety* (see table 1).

The model assumes there are different types of mathematics anxiety and these are specific to situations such as classroom instruction, completing formal assessment tasks, and applying mathematics outside of the mathematics classroom. The rationale behind specification of a typology was a consequence of multi-variate views of mathematics anxiety which assume differences between the types. Respective types will be characterised by different indicators and theorised as a multidimensional construct model. From a measurement perspective, data from these indicators would not be expected to fit a unidimensional measurement model such as the Rasch model.

Table 1.  
*Situational model of mathematics anxiety*

		Situational types of mathematics anxiety							
		Instructional			Assessment		Application		
Level	Domains	Independent work	Group work	Working in a class group	Formal - examinations and tests	Informal - quizzes and worksheets	Other subjects	Home	Work
High anxiety ↑	Somatic indicators								
	Cognitive indicators								
Low anxiety	Attitudinal indicators								

Another assumption about mathematics anxiety embodied in the model is that the indicators of anxiety are ordered cumulatively with somatic indicators mainly restricted to persons with high anxiety, whereas the attitudinal indicators will characterise persons with low anxiety as well as those with high anxiety.

### Research objectives

The study sought to measure mathematics anxiety and this required testing the assumptions in the *Situational model of mathematics anxiety*. Specifically:

1. Can a linear scale of mathematics anxiety be constructed (data fits the Rasch model)?
2. Are the distributions of scores for different types of mathematics anxiety different? and
3. Is the theorised order of the anxiety indicators consistent with the ordering of the anxiety scores?

### Research methods

In instrument construction, Wolfe and Smith (2007) recommend the development of a test blueprint followed by selection of scoring and scaling models after construct model specification is finalised. In this investigation, two forms of a questionnaire were constructed. One elicited information on anxiety when working in a class group and the other on anxiety when completing a test. These two situations were described for students in the instructions on how to complete the questionnaire.

Working in a class group is when the whole class is working with the teacher at one time. For example, it could be when you are all listening to the teacher,

answering questions, or when you or other students are explaining things to the rest of the class.

Tests are when you are given a question or lists of questions in mathematics and you answer in writing. You are not allowed to talk to anyone else.

Both forms comprised the same items in the same order. Six items were written for the attitudinal indicators, nine for the cognitive indicators and six for the somatic indicators. A large number of cognitive indicators were included to make the scale more sensitive to students with 'average' anxiety. The test blueprint is presented in Table 2 and the indicators and respective items are presented in Table 3.

Table 2.  
*Test blueprint*

Indicators	Questionnaire form	
	Form A: Working in	Form B: Test
Somatic	6 items	6 items
Cognitive	9 items	9 items
Attitudinal	6 items	6 items

Table 3.  
*Questionnaire items*

Item label	Item number	Item
Som 1	14	I feel uncomfortable
Som 2	18	I shake or tremble
Som 3	17	I have sweaty palms
Som 4	16	I have difficulty breathing
Som 5	19	My heart beats more quickly
Som 6	21	My mouth becomes dry
Cog 1	7	I am worried about others thinking I am stupid
Cog 2	13	I feel threatened
Cog 3	1	I am aware of previous failures
Cog 4	9	I can't think clearly
Table 3 continued		
Cog 5	15	I forget things I normally know
Cog 6	3	I am frustrated
Cog 7	5	I am not in control
Cog 8	2	I am confused
Cog 9	20	My mind goes blank
Att 1	8	I am worried about what I am expected to do
Att 2	12	I feel like running away
Att 3	10	I don't want to be doing this I expect to have difficulty doing what is required
Att 4	11	I am not confident I can do what is required
Att 5	4	I am not confident I can do what is required
Att 6	6	I am scared about what I have to do

A scoring model describes how qualitatively different observed responses are translated into numerical codes. In turn, the scoring model options will depend on the nature of the observations. For example, a test of spelling in which each question is marked as either correct or incorrect would be scored dichotomously (0 or 1). Alternatively, a survey of attitudes towards mathematics in which persons respond to questions by choosing one category from a multiple-point response scale would be scored polytomously (e.g. 1, 2, 3 or 4). The scoring model chosen for this study used four response categories scored 1 for strongly agree, 2 for agree, 3 for disagree and 4 for strongly disagree. Scores were reversed for data entry and missing data were scored 9.

A scaling model defines "... how ordinal codes are combined and mapped onto a continuum that represents measurable quantities of the target construct" (Wolfe & Smith, 2007, p. 108). This process of scaling includes the mapping of individual item and person data. The Rasch Rating Scale model (Andrich, 1978a, 1978b & 1978c), is applicable for scaling when the data are polytomous and there are similar response categories for all items. In this investigation, scaling used the Rasch Rating Scale model and the computer program RUMM2020 (Andrich, Sheridan, Lyne and Luo, 2007).

The questionnaires were administered to 50 Years 5 to 7 primary school students from seven Western Australian schools in the Perth metropolitan area. Questionnaire completion was part of a wider data collection process in which each student was interviewed about engagement in mathematics learning. Each student completed both forms of the instrument. Sample details are presented in Table 4.

Table 4.  
*Sample details*

School	1	2	3	4	5	6	7	Total
Females	10	4	2	3	1	4	3	27
Males	6	2	4	2	3	4	2	23
Total	16	6	6	5	4	8	5	50

## Results

### 1. The scale of mathematics anxiety

Data from 100 questionnaires were entered into RUMM2020 and a variety of analyses were undertaken. The use of the response categories was examined by estimating the thresholds between adjacent response categories. A threshold is the student anxiety score for which there is an equal probability of selecting either of the adjacent categories. RUMM2020 generates category probability curves that plot the probability of students selecting a particular response category against their anxiety scores (see Figure 1). The intersections of the adjacent curves for Att 6 item (*I am scared about what I have to do*) presented in Figure 1 are the respective thresholds. These are located at student scores of -3.42 logits, 0.66 logits and 4.97 logits because the students with higher anxiety scores tended to choose the more affirmative response categories. However this logical use of the response categories was not characteristic of all the items. Items Att 2 and Cog 5 elicited data with disordered thresholds. These data were removed prior to subsequent analyses.

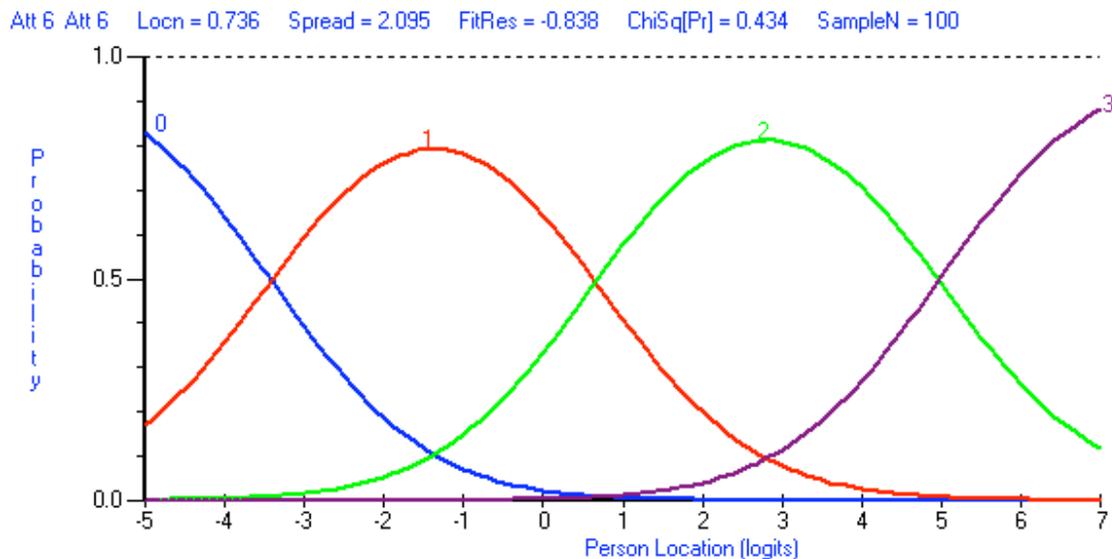


Figure 1. Category probability curves for Item Att 6

When data fit the Rasch model, the observed scores for an item should be similar to the score predicted by the model for persons of similar ability. In Figure 2, the observed scores for three class intervals of students are plotted on the same axes as the ogive predicted by the Rasch model. Students with low anxiety scores responded more affirmatively than expected while those with high anxiety scores responded less affirmatively than expected. The residual, the difference between the observed score for this item and the score predicted by the model, was high (3.25).

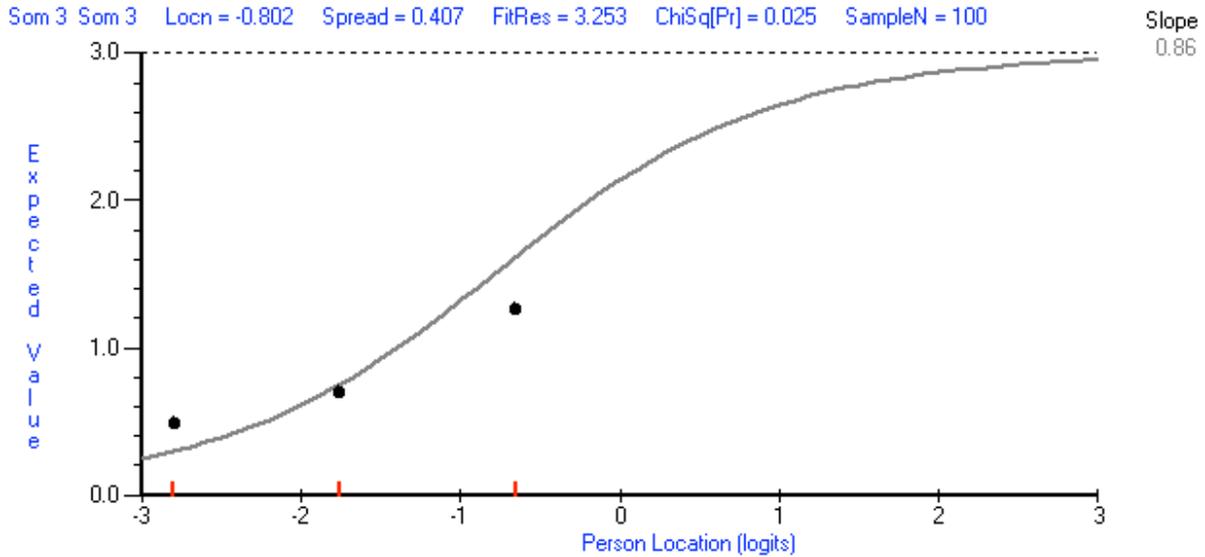


Figure 2. Item characteristic curve for Item Som 3

A Chi Square is estimated to show the interaction between an item and the trait. A low Chi Square probability value is due to poor item trait interaction. Six items were identified with high residual (>2.5) and/or low Chi Square probability values after the Bonferroni adjustment. Data from these items were removed prior to the final analysis.

The data from the remaining 13 items fitted the Rasch Rating Scale model well so it was possible to compare student anxiety scores and item difficulties. Plotting item difficulty locations and student anxiety scores on the same scale showed the students tended to be reluctant in their affirmation of the anxiety indicators (see Figure 3).

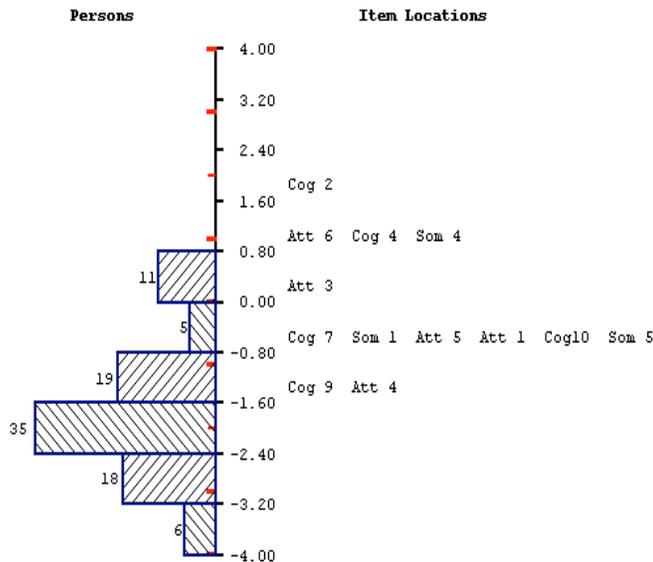


Figure 3. Item map

For data-to-model fit, the item residuals were all  $<2.5$  and the item-trait interaction was high. For the person data, 95 of the 100 residuals were  $<2.5$ . The proportion of variance in the student scores considered true, the Separation Index, was high (0.82). The total item Chi Square was low ( $p < .05$ ), suggesting some multi-dimensionality in the data. A Principal Components Analysis of residuals after the Rasch measure was extracted provided further evidence of multidimensionality. There was no bias in items due to gender (no differential item functioning).

## 2. Differences between the two types of mathematics anxiety

RUMM2020 generates a person-item distribution that can show the distributions of scores for different groups of persons. Figure 4 shows the respective distributions of the scores for students reporting on test anxiety and on classroom anxiety.

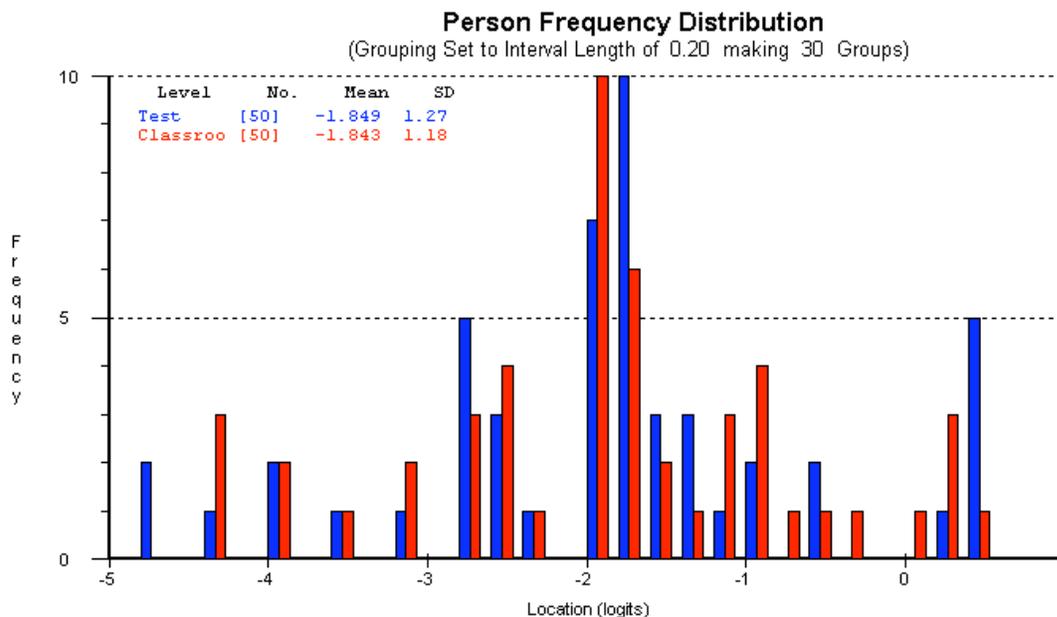


Figure 4. Distribution of anxiety scores

The mean scores and standard deviations were very similar suggesting minimal sample-wide difference between student reports of mathematics anxiety in the two situations.

However, this display does not reveal the pairing of scores for the individual student – comparing each student’s score for anxiety in tests with the score for anxiety in the classroom. These are presented in Figure 5 with the test anxiety scores ordered from low to high. The students reporting low test anxiety generally reported comparatively higher classroom anxiety, and conversely, the students reporting high test anxiety generally reported comparatively lower classroom anxiety. When the scores were aggregated for each, the mean scores and standard deviations were similar (see Figure 4). The prevalence of anxiety in the two situations was similar for the sample, but the respective strengths of the anxieties in the situations varied between students. The relation between anxiety experiences in test and classroom situations depends on the individual student.

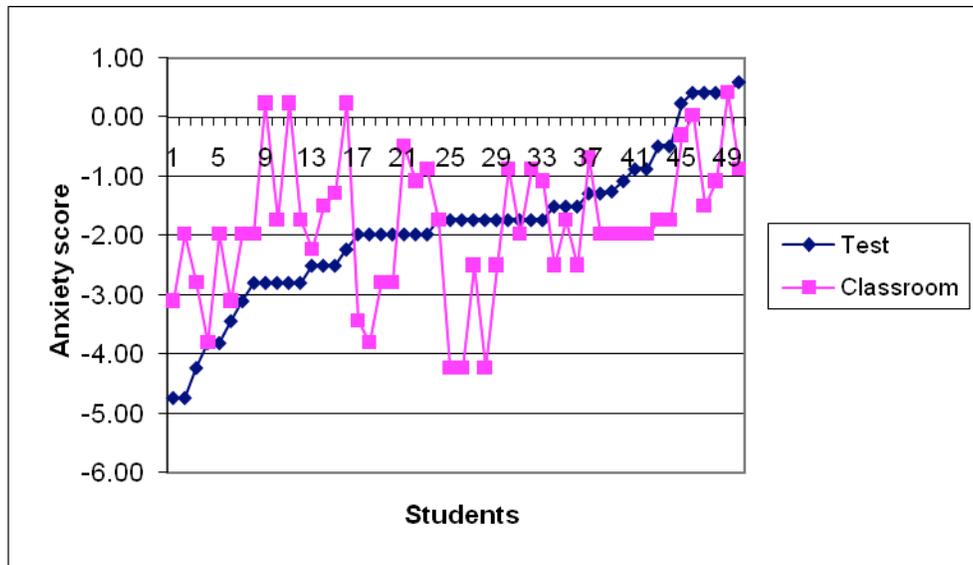


Figure 5. Comparison of types of anxiety scores for each student

### 3. Ordering of the anxiety indicators

The difficulty the students experienced in affirming the respective items were estimated as item difficulty logits. These are presented in Table 5.

Table 5

*Items and item difficulty locations*

Item label	Item	Location (logits)
Cog 1	I am worried about others thinking I am	1.82
Som 4	I have difficulty breathing	1.53
Cog 3	I am aware of previous failures	1.30
Att 6	I am scared about what I have to do	0.90
Att 3	I don't want to be doing this	0.03
Som 5	My heart beats more quickly	-0.43
Cog 9	My mind goes blank	-0.53
Att 1	I am worried about what I am expected to	-0.61
Att 5	I am not confident I can do what is	-0.66
Som 1	I feel uncomfortable	-0.70
Cog 6	I am frustrated	-0.75
Att 4	I expect to have difficulty doing what is	-0.82
Cog 8	I am confused	-1.09

The most difficult items to affirm were Att 6 (*I am scared about what I have to do* 0.90 logits), Cog 3 (*I am aware of previous failures* 1.30 logits), Som 4 (*I have difficulty breathing* 1.53 logits), and Cog 1 (*I am worried about others thinking I am stupid* 1.82 logits). These items measure attitudinal, cognitive and somatic indicators. The somatic indicators were not more difficult to affirm than the cognitive or attitudinal indicators. Since the Rasch model produces person-free estimates of item difficulty, the respective item difficulties for the two forms of the instrument

should be similar. This was confirmed by separating the data from the two forms and conducting two separate analyses. The item location sequences were very similar.

### Discussion

The results of this pilot study are significant. First, a linear measure was created as shown by the data from the 13-item scale fitting the Rasch model. Consequently, the estimations and displays generated by RUMM2020 are justified and meaningful. As was noted in the previous paper, there is a paucity of objective measures of mathematics anxiety. The creation and validation of this measure is an important contribution to mathematics anxiety research.

Second, data from both forms of the instrument fitted the Rasch model providing evidence of a trait which is manifest in both situations. Mathematics test anxiety and mathematics classroom anxiety are likely manifestations of the same construct and are definable by the same indicators. When this common metric is applied to measure anxiety, scores vary between students as does the relation between scores for the two situations.

Third, the distribution of student anxiety scores in the Figure 3 item map in relation to the distribution of item difficulty logits, shows the students generally did not affirm the items as strongly as expected. That is, it was difficult for the students to affirm they experienced anxiety as operationally defined by the indicators.

Fourth, the construct model assumed a cumulative relation between the attitudinal, cognitive and somatic indicators. But there was not evidence that somatic indicators were more difficult to report than the other types. For example, a cognitive indicator *worrying about others thinking I am stupid* (item difficulty location 1.82 logits) was the most difficult indicator to affirm. In contrast, it was easy for students to report the somatic indicator *feeling uncomfortable* (item difficulty location -0.70). This finding has implications for the hierarchical structure within the construct model. High anxiety is indicated by a combination of attitudinal, cognitive and somatic indicators. Similarly low anxiety is also characterised by a combination of all three types of indicators.

A model that incorporates these findings is presented in Table 6.

Three types of indicators are specified - attitudinal, cognitive and somatic. Examples of these indicators are provided for high, moderate and low levels of anxiety. For each level there is a combination of the three different types of indicators.

The model acknowledges that mathematics anxiety can arise in any situation in which mathematical skills and knowledge are required. The indicators of anxiety are common to all situations and the relative 'severity' of the indicators is also assumed to not vary across situations. That is, one construct applies in all situations.

Implicit in the specification of a construct model with a componential structure incorporating indicators of different levels of anxiety is the notion that this construct will vary in degree between individuals in different situations.

Table 6.

*Model of mathematics anxiety*

<b>Dominant trait model of mathematics anxiety</b>
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Level of anxiety	Indicators	Attitudinal	Cognitive	Somatic
High anxiety		e.g. Scared about what s/he has to do	e.g. Worried about others thinking s/he is stupid	e.g. Having difficulty breathing
Moderate anxiety		e.g. Not wanting to be doing what has to be done	e.g. Mind going blank	e.g. Heart beats more quickly
Low anxiety		e.g. Expecting to have difficulty doing what is required	e.g. Being confused	e.g. Feeling uncomfortable

<b>Applicable to</b>	<b>In-class instruction</b> For example, independent work, group work or working in a class group <b>In-class assessment</b> For example, formal examinations or tests, informal
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### Conclusion

The construct model developed in the first paper proved useful for instrument design and data collection. Two forms of the instrument were based on the model and data from these instruments was then used to examine the content and structural aspects of the model. Rasch Rating Scale model analyses of the data identified ways to improve the metric and in turn, to modify the model. It should be noted that the data was fitted to a measurement/scaling model and it was information about this fit that informed further theorising. The refined model and the Rasch scale are now the starting point for the next round of empirical inquiry.

Further studies are warranted and these could involve larger samples and recruit students from primary and secondary classes and adults in work situations. A wider range of situations needs to be investigated using multiple forms of the instrument. The Rasch model can handle incomplete data so it is possible to use multiple forms of the instrument covering both common and different situations. Also, having individual respondents report on multiple situations enables person-linking for instrument equating. The tools developed to research mathematics anxiety could have utility in studying other manifestations of anxiety. The current investigation could be extended to other anxiety experiences.

Finally, when a strong argument can be mounted for the validity of model and the instrument, a metric is available to researchers who wish to conduct experimental research or to examine associations between mathematics anxiety and other variables. For example, the effects of anxiety on engagement in learning.

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### Working in a Class Group

Name: \_\_\_\_\_ Gender: \_\_\_\_\_ School: \_\_\_\_\_

Working in a class group is when the whole class is working with the teacher at one time. For example, it could be when you are all listening to the teacher, answering questions, or when you or other students are explaining things to the rest of the class.

Now thinking about how you feel when you are working in a class group, please read the following statements and tick the box to indicate to what extent you agree or disagree with each statement.

When I am working in a class group...	Strongly Agree	Agree	Disagree	Strongly Disagree
I am aware of previous failures .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am confused .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am frustrated .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am not confident I can do what is required .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am not in control .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am scared about what I have to do .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am worried about others thinking I am stupid .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am worried about what I am expected to do .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I can't think clearly .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I don't want to be doing this .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I expect to have difficulty doing what is required .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I feel like running away .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I feel threatened .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I feel uncomfortable .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I forget things I normally know .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I have difficulty breathing .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I have sweaty palms .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I shake or tremble .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
My heart beats more quickly .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
My mind goes blank .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
My mouth becomes dry .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

### Tests in Mathematics

Name: \_\_\_\_\_ Gender: \_\_\_\_\_ School: \_\_\_\_\_

Tests are when you are given a question or lists of questions in mathematics and you answer in writing. You are not allowed to talk to anyone else.

Now thinking about how you feel when you are doing a test in maths, please read the following statements and tick the box to indicate to what extent you agree or disagree with each statement.

When I am doing a test in maths...	Strongly Agree	Agree	Disagree	Strongly Disagree
I am aware that sometimes I get things wrong .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am confused .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am frustrated .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am not confident I can do what is required .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am not in control .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am scared about what I have to do .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am worried about others thinking I am stupid .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I am worried about what I am expected to do .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I can't think clearly .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I don't want to be doing this .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I expect to have difficulty doing what is required .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I feel like running away .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I feel threatened .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I feel uncomfortable .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I forget things I normally know .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I have difficulty breathing .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I have sweaty palms .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
I shake or tremble .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
My heart beats more quickly .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
My mind goes blank .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
My mouth becomes dry .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>