

# Healthy Computing Questionnaire for Children (HCQC)

Developed by  
Megan Hatfield, BSc OT(Hons)  
Marina Ciccarelli, PhD

School of Occupational Therapy and Social Work  
Curtin University, Perth, Australia

2010

***There are SEVEN Different Sections:***

*SECTION ONE: Questions asking what you **know***

*SECTION TWO: Questions asking how you **feel***

*SECTION THREE: Questions about **yourself***

*SECTION FOUR: Questions about when you use computers at **home***

*SECTION FIVE: Questions about when you use computers at **school***

*SECTION SIX: Questions about the **time** you spend on computers.*

*SECTION SEVEN: Questions about **physical activity and sport***

***Thank you for answering this important questionnaire***

Here are some questions about the healthy way to use a computer.  
Answer **ALL** of the questions. Circle the best answer.

**Example question:** It is best for my teeth if I brush them with a toothbrush:

- A Once in my whole life
- B Once a year
- C Once a month
- D At least once a day

*This person has circled the best answer.*

1. Look at the following pictures and answer the question below.

**A**



**B**



**C**



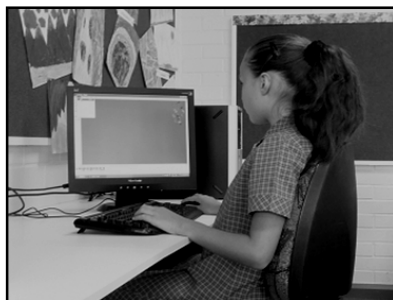
**D**



Which of the above pictures shows the best way to sit when using a computer?

- A
- B
- C
- D

2. When I use a computer, it is best if I:
- A Sit up straight the whole time
  - B Stay in any one position the whole time
  - C Change my position every hour
  - D Change my position every few minutes
3. To help my body be healthy, I should do sport or physical activity at least:
- A Once a day
  - B Once a week
  - C Once a month
  - D Once a year
4. When sitting at a computer on a chair, my feet should be:
- A Dangling in the air
  - B Touching the ground or a footrest
  - C Resting on the wheels of the chair
  - D Tucked up under my body on the seat
5. Look at the position of the computer screen in the following pictures and answer the question below.

**A****B****C**

Which of the above pictures shows the best place for the computer screen?

- A
- B
- C



6. If I feel sore or uncomfortable while using a computer, the best thing to do is:
- A Keep using the computer and ignore the soreness
  - B Keep using the computer because the soreness will go away
  - C Stop using the computer once I have finished the activity I am doing
  - D Stop using the computer straight away and do something else for a while

7. If I cannot read the words on my computer screen clearly, I should:
- A Lean forward
  - B Bring the computer screen forward to the edge of the desk
  - C Rest my eyes by closing them for 10 seconds
  - D Increase the font size or zoom in

8. When I use a computer keyboard, I should place it:
- A On my lap
  - B On a pull-out computer keyboard tray
  - C On the desk, as close to the edge as possible
  - D On the desk, leaving a gap between the edge of the desk and the keyboard

9. Look at the mouse and this child's arm in the following pictures and answer the question below.

**A**



**B**



**C**



**D**



Which of the above pictures shows the best place for the mouse and this child's arm?

- A
- B
- C
- D

10. When sitting at the computer, it is best to sit so that my
- A Bottom is at the front edge of my seat
  - B Bottom is in the middle of my seat
  - C Bottom is at the back of the seat and my back is up against the backrest
  - D Bottom is at the back of the seat and my back is not up against the backrest

11. Look at this child's feet in the following pictures and answer the question below.

**A**



**B**



**C**



**D**



Which picture shows the best position for this child's **feet** when sitting at the computer?

- A
- B
- C
- D

12. When I use a computer, I should take a break to stand and move around:

- A Never
- B One or two times every 1 hour
- C One time every 2 hours
- D One time every 3 hours

13. I should only use a computer chair with armrests if:

- A I am using a computer for more than an hour
- B I am using the computer for less than an hour
- C I can adjust the armrests to let me rest my forearms on the desk
- D I can adjust the armrests so that they are the same height as the desk

14. Sometimes children work on the computer and from a book at the same time, like in these pictures. Look at the book in the following pictures and answer the question below.

**A**



**B**



**C**



**D**



Which picture shows the best place for the book?

- A
- B
- C
- D

15. When I take a break from using a computer, I can keep my body healthy by

- A Lying down to rest
- B Watching TV
- C Getting up and walking around
- D Reading a book

16. To keep my body healthy, I should do an sport or physical activity at least:

- A 1 hour every day
- B 15 minutes every day
- C 1 hour every week
- D 15 minutes every week

17. When looking at a computer screen, I should be

- A Looking up
- B Looking down
- C Looking straight ahead
- D Looking towards the side where I hold the mouse

18. Look at the following pictures, and answer questions below.

**A**



**B**



**C**



Which picture shows the best place for this child's arms when using the computer?

- A
- B
- C








## SECTION TWO

*Tell us how you feel about using computers.*

*Here are five faces.*






*Put a tick on face*

					<i>tick the that</i>
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	

*shows if you agree or disagree with the sentence*

Here is an example of how to answer this section.






*Example Sentence:*  
I really like eating ice cream

				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree






By ticking this face, this person is saying they strongly agree with the sentence “I really like eating ice cream”. In other words, this person really likes eating ice cream.

*Now answer these sentences. Put a tick on the face shows if you agree or disagree with the sentence.*

19. Using a computer can cause me to get sore muscles

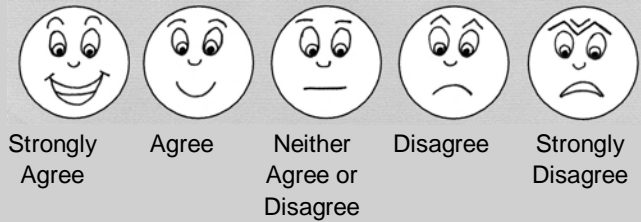
				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree

20. If I get sore muscles when using a computer, I will not be able to join in activities with my friends

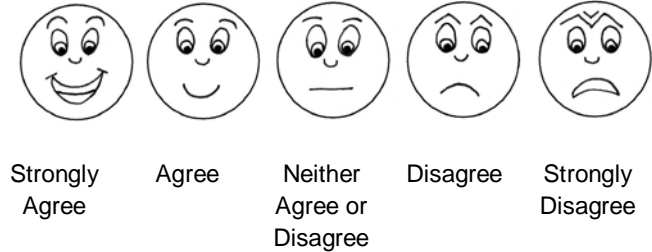
				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree



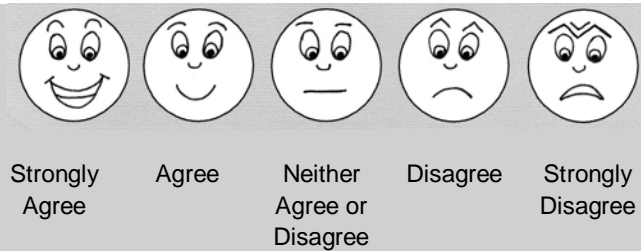
21. It is not a problem if my muscles get sore when using a computer because they will only be sore for a short time



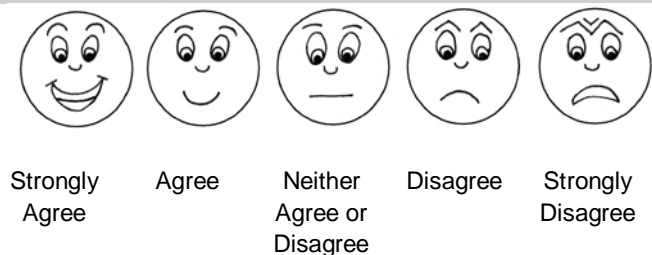
22. It is difficult to remember to adjust my computer and chair so that my computer posture is healthy



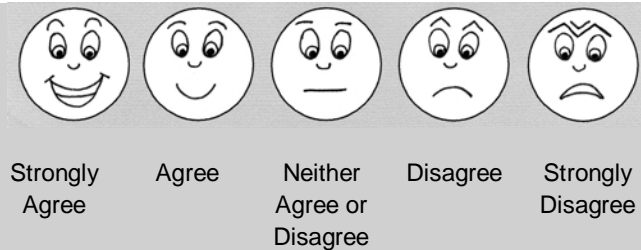
23. My Mum or Dad worry about me using computers in a healthy way



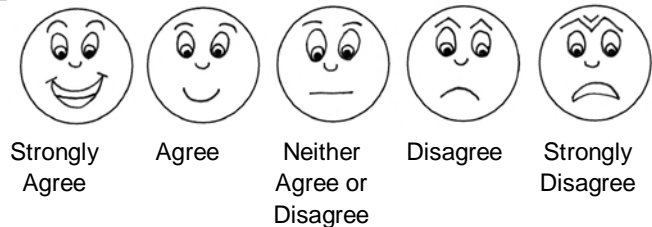
24. I would be worried if my muscles or eyes got sore when using a computer



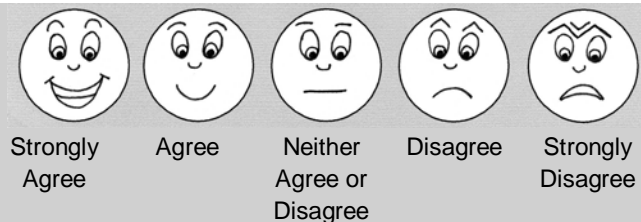
25. My friends think using computers in a healthy way is important



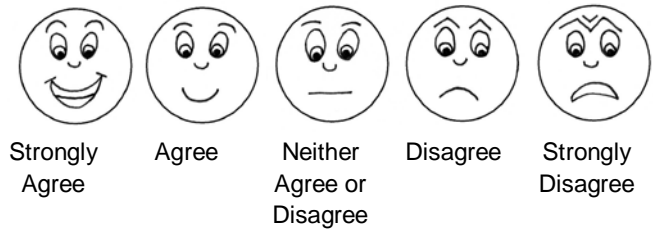
26. I know what to do to adjust my computer and chair so that my computer posture is healthy



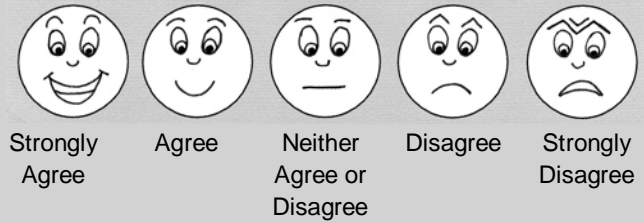
27. I would like to learn about how to use the computer so that I do not get sore muscles or eyes



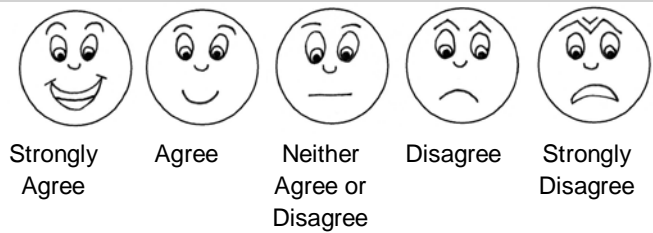
28. I would set up my computer in a healthy way and take breaks when using the computer if my Mum or Dad told me to



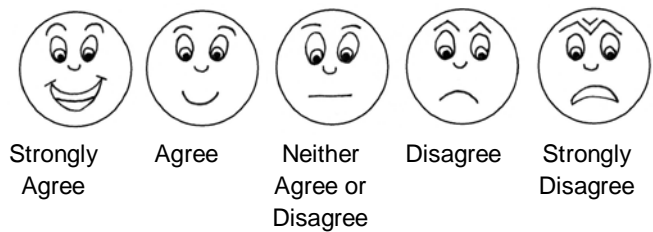
29. Even if I was shown how to set up my computer, I would not bother



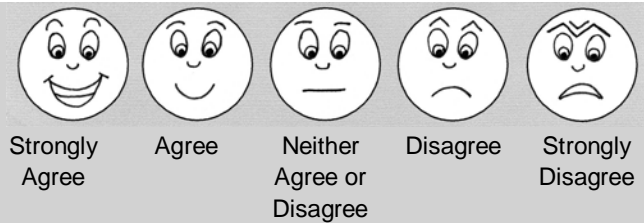
30. My teacher thinks setting up the computer and taking breaks is important



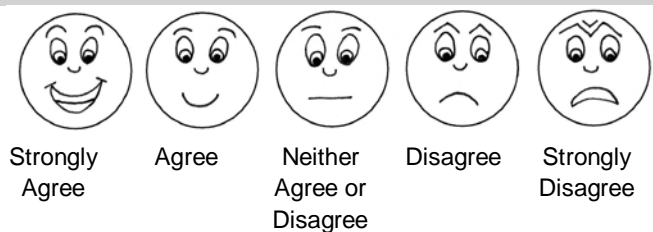
31. If I saw my friends set up their computer and chair in a healthy way, I would too



32. I would not tell anyone if I felt soreness or pain in my eyes or muscles when I was using the computer



33. If I take breaks when I use the computer, I can help stop my muscles and eyes becoming sore





34. I would set up my computer in a healthy way and take breaks when using the computer if my teacher told me to



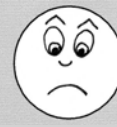
Strongly Agree



Agree



Neither Agree or Disagree



Disagree



Strongly Disagree

35. I am good at remembering to have a break when I am using a computer for a long time



Strongly Agree



Agree



Neither Agree or Disagree



Disagree



Strongly Disagree

36. Using a computer can cause me to get sore or tired eyes



Strongly Agree



Agree



Neither Agree or Disagree



Disagree



Strongly Disagree

37. If I set up my computer and chair to suit my body before I use it, I can help stop my muscles and eyes becoming sore



Strongly Agree



Agree



Neither Agree or Disagree



Disagree



Strongly Disagree

### SECTION THREE

Here are some questions about you.

38. When were you born?

39. Are you a boy or a girl? (tick the box)

Boy

Girl

40. A suburb is the area where you live.  
For example, Bob lives at 3 Apple St, *Claremont*. The suburb Bob lives in is *Claremont*.

What suburb do you live in? \_\_\_\_\_

### SECTION FOUR

Here are some questions about when you use a computer at **HOME**. There are no right or wrong answers – tell us about what you usually do.

41. How many computers are there that you can use at **HOME**?

0    1    2    3    4    5    6    7 or more

42. What kind of computer do you use at **HOME**? (you can tick more than one box)

Desktop  
computer

Laptop  
computer

Handheld  
computer

43. When you use a computer at **HOME** what do you use it for? (you can tick more than one box)

Writing in a Word document

Visiting internet sites for schoolwork

Visiting internet sites for fun

Talking to Friends, e.g. Facebook, Facetime, Skype

Playing games

Emailing

44. Which of these chairs is most like the one you sit on when you use a computer at **HOME**?





### SECTION FIVE

*Here are some questions about when you use a computer at **SCHOOL**.*

45. What kind of computer do you use at **SCHOOL**? (you can tick more than one box)

Desktop computer

Laptop computer

Handheld computer

46. When you use a computer at **SCHOOL**, what do you use it for? (you can tick more than one box)

- Writing in a Word document
- Visiting internet sites for schoolwork
- Visiting internet sites for fun
- Talking to Friends, e.g. Facebook, Facetime, Skype
- Playing games
- Emailing

47. Which of these chairs is most like the one you sit on when you use a computer at **SCHOOL**?





**SECTION SIX**

*Here are some questions about how long you spend on computers.*

48. Think about the last week. How many days did you use a computer at home or at school?

- 0 days    1    2    3    4    5    6    7 days

49. Think of one normal day at **SCHOOL** last week. How much time did spend on a computer?

- No time  
 About 30 minutes  
 About 1 hour  
 About 2 hours  
 About 3 hours  
 About 4 hours or more

50. Think of one normal afternoon **AFTER SCHOOL** last week. How much time did you spend on a computer?

- No time  
 About 30 minutes  
 About 1 hour  
 About 2 hours  
 About 3 hours  
 About 4 hours or more

51. Think of one day last **WEEKEND**. How much time did you spend on the computer?

- No time  
 About 30 minutes  
 About 1 hour  
 About 2 hours  
 About 3 hours  
 About 4 hours or more

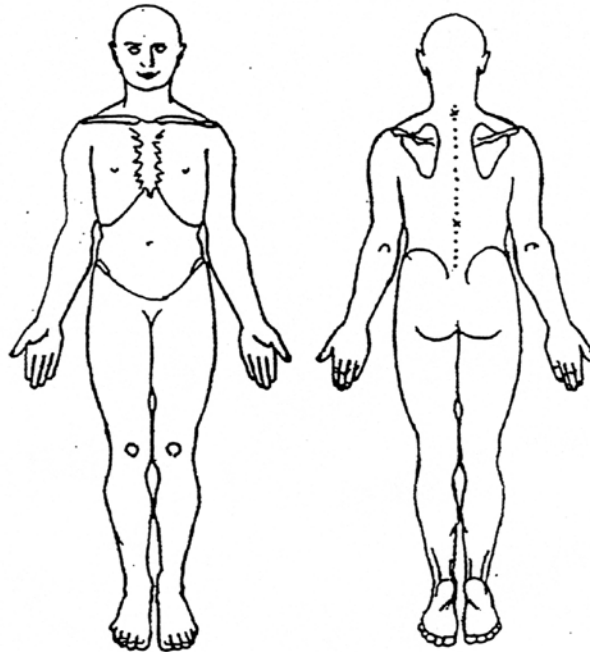


52. How long would you normally use a computer without stopping before you took a break?

- About 15 minutes
- About 30 minutes
- About 1 hour
- About 2 hours
- About 3 hours
- About 4 hours or more

53. In the past week, have you felt soreness or pain when you used a computer?

- YES** → *Circle each place on the picture where you felt soreness or pain*
- NO** → *Do not draw anything on the picture*





## SECTION SEVEN

Here are some questions about physical activity.

**Physical Activity** is any activity that makes your heart beat faster and makes you huff and puff.

Some examples are running, swimming, riding a bike, dancing, surfing, and playing football, netball or basketball.

54. Think about last week. How many days did you do physical activity or sport when you were at home or at school?

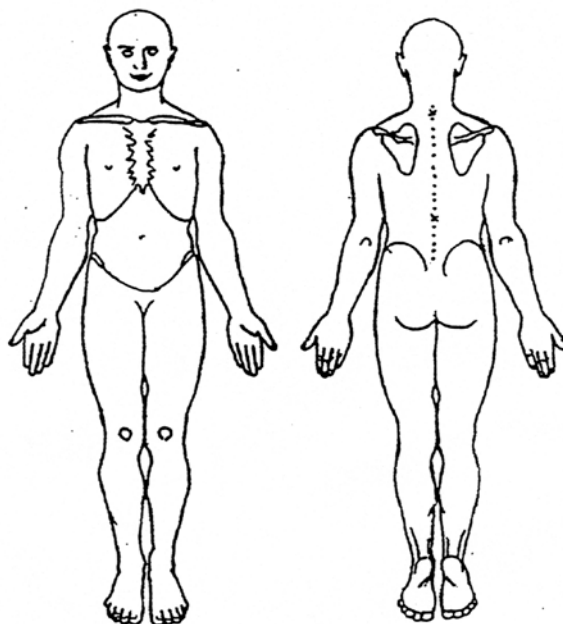
0 days    1    2    3    4    5    6    7 days

55. When you do physical activity or sport, how long do you normally do it for?

- About 30 minutes  
 About 1 hour  
 About 2 hours  
 About 3 hours  
 About 4 hours or more

56. In the past week, did you feel any soreness or pain while doing physical activity or sport?

- YES** → Circle each place on the picture where you felt soreness or pain  
 **NO** → Do not draw anything on the picture



## OVERVIEW & INSTRUCTIONS - HCQC

The CHQ assesses primary school children's knowledge, attitudes and behaviours relating to healthy computer use. This measure was developed for two main purposes:

- 1) Descriptive
- 2) Evaluative

### Administration:

- *Context:* Can be completed in any environment
- *Age Group:* From Year Five to Year Seven (aged 9-13years) until further validation with younger populations.
- *Administration:* As the CHQ is a self-completed questionnaire it does not require administrator. Instructions are written at the top of sections. Only a pencil or pen is required when completing the CHQ. It can be administered to individuals or groups. It may require administrator for a group situation, but the administrator does not require any formal training.
- *Time taken to complete:* On average 20 minutes. Allow at least 30 minutes for group administrations.
- *Cost:* Free to use.

### Scoring

- Subscales can be administered and scored separately.
- Instructions for scoring can be found in the scoring sheet.

### Interpretation

- Currently there is no normative data for the measure.
- Until norms have been established, it is recommended that the items are interpreted individually.

## SCORING SHEET – HCQC

Student Name \_\_\_\_\_

School Grade/Year \_\_\_\_\_

Date \_\_\_\_\_

*Note: Sections 3, 4, 5, 6 and 7 should be scored and interpreted individually*

### SECTION ONE: KNOWLEDGE

Score each question as either correct with a 1 or incorrect with a 0 and then calculate the overall score.

Scoring Key: 1 = Correct Answer 0 = Incorrect Answer
---

Correct Answer	Score	Correct Answer	Score
1. C	1. _____	10. C	10. _____
2. D	2. _____	11. B	11. _____
3. A	3. _____	12. B	12. _____
4. B	4. _____	13. C	13. _____
5. A	5. _____	14. B	14. _____
6. D	6. _____	15. C	15. _____
7. D	7. _____	16. A	16. _____
8. D	8. _____	17. C	17. _____
9. D	9. _____	18. C	18. _____

**Overall Score:** \_\_\_\_\_ / 18

## SECTION TWO – ATTITUDES RAW SCORES

Attitude items are grouped within the construct that they are measuring. Score each item from 1 to 5.

*\*Note: Items 27, 29 and 32 are all additional items and should be interpreted individually.*

Scoring Key: 1 = Strongly Agree  
 2 = Agree  
 3 = Neither Agree or Disagree  
 4 = Disagree  
 5 = Strongly Disagree

<p style="text-align: center;"><b>Evaluation &amp; Perceived Severity of Consequences*</b></p> <p>27. _____</p> <p>28. _____</p> <p>31. _____</p> <p>38. _____</p> <p>46. _____</p> <p><i>Raw Score:</i> _____</p>	<p style="text-align: center;"><b>Perceived Likelihood of Consequences*</b></p> <p>26. _____</p> <p>40. _____</p> <p>52. _____</p> <p><i>Raw Score:</i> _____</p>	<p style="text-align: center;"><b>Response Efficacy*</b></p> <p>47. _____</p> <p>54. _____</p> <p>55. _____</p> <p><i>Raw Score:</i> _____</p>
<p style="text-align: center;"><b>Self-Efficacy</b></p> <p>29. _____</p> <p>33. _____</p> <p>35. _____</p> <p>41. _____</p> <p>50. _____</p> <p><i>Raw Score:</i> _____</p>	<p style="text-align: center;"><b>Normative Beliefs</b></p> <p>30. _____</p> <p>32. _____</p> <p>39. _____</p> <p>42. _____</p> <p>51. _____</p> <p><i>Raw Score:</i> _____</p>	<p style="text-align: center;"><b>Motivation to Comply with Others*</b></p> <p>37. _____</p> <p>43. _____</p> <p>45. _____</p> <p>48. _____</p> <p>49. _____</p> <p>53. _____</p> <p><i>Raw Score:</i> _____</p>

## SECTION TWO – ATTITUDES AVERAGE SCORES

An average score for each construct can also be calculated.

### Evaluation & Perceived Severity of Consequences\*

$$\text{Average Score} = \frac{\text{Raw Score}}{5} = \frac{\quad}{5} = \underline{\quad}$$

### Perceived Likelihood of Consequences\*

$$\text{Average Score} = \frac{\text{Raw Score}}{3} = \frac{\quad}{3} = \underline{\quad}$$

### Response Efficacy\*

$$\text{Average Score} = \frac{\text{Raw Score}}{3} = \frac{\quad}{3} = \underline{\quad}$$

### Self-Efficacy

$$\text{Average Score} = \frac{\text{Raw Score}}{5} = \frac{\quad}{5} = \underline{\quad}$$

### Normative Beliefs

$$\text{Average Score} = \frac{\text{Raw Score}}{5} = \frac{\quad}{5} = \underline{\quad}$$

### Motivation to Comply with Others\*

$$\text{Average Score} = \frac{\text{Raw Score}}{6} = \frac{\quad}{6} = \underline{\quad}$$

*\*These constructs had stronger internal consistency (Cronbach's alpha around .50 or higher) and therefore can be interpreted with more confidence. For those constructs with poorer internal consistency, it may be beneficial to interpret items individually.*