

How People Learn Exercises Week 10

Question 1

'Validity' means a number of different things in social research. Define each of the following terms:

Internal validity of a study:

External validity of a study:

Factorial validity of a scale used in a study:

For the remaining questions use the data from the Metacognitive Self-Regulation Inventory on moodle for week 25 September. The scale has 12 questions as follows:

1. During class time I often miss important points because I'm thinking of other things. (REVERSED)
2. When reading for this course, I make up questions to help focus my reading.
3. When I become confused about something for this class, I go back and try to figure it out.
4. If course materials are difficult to understand, I change the way I read the material.
5. Before I study course materials thoroughly, I often skim through it to see how it is organized.
6. I ask myself questions to make sure I understand the material I have been studying in this class.
7. I try to change the way I study in order to fit the course requirements and instructor's teaching style.
8. I often find that I have been reading for class but don't know what it was all about. (REVERSED)
9. I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying.
10. When studying for this course I try to determine which concepts I don't understand well.
11. When I study for this class, I set goals for myself in order to direct my activities in each study period.
12. If I get confused taking notes in class, I make sure I sort it out afterwards.

Reverse the scaling for questions 1 and 8 so that the directionality is the same as for the other questions, as you already did in Week 3.

Question 2

In addition to validity of a scale we are also interested in its reliability.

- (a) Define reliability of a scale.
- (b) Using the data from the metacognitive self-regulation inventory, assess the reliability of the same using Cronbach's alpha. You will find notes on Cronbach's alpha here: <http://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/> Cronbach's alpha can also be calculated in excel (<https://www.youtube.com/watch?v=uXKnn0T6Cyw>)
- (c) Interpret your result.

Question 3

In excel or in some other statistical package, produce a correlation matrix to see how each question correlates with all the others.

Does this result lead you to think that the scale will have factorial validity?