The purpose of Project 1 is to create a new psychological measure that uses a rating scale that contains 2 – 4 subscales.

Lab 1-1: Drafting Your Rating Scale  
Due Wednesday Jan 28, 3pm  
3 marks

Lab 1-2: Editing Your Rating Scale  
Due Wednesday Feb 4, 3pm  
3 marks

Lab 1-3: Finalizing Your Rating Scale  
Due Wednesday Feb 11, 3pm  
10 marks

An award will be given for the Best Rating Scale
Project 1

Lab 1-1: Drafting Your Rating Scale 3 Marks

Purpose
The purpose of this assignment is to write a new psychological measure that uses a rating scale. You can use either an agreement scale or a frequency scale. All items on your measure will be designed to measure one construct, but they will be divided into 2 – 4 homogeneous subscales that contain 6 – 10 items each.

Assignment
Follow these steps:

1) Definitions

Decide what your scale will measure. Write down the **NAME** of the construct. Pick a construct in which you have some interest so that you will find it interesting and challenging to create a new measure of that construct.

Divide your construct into two or more parts. For example, Neuroticism can be broken into Worry, Anger, and Stress. Emotional Expressivity can be broken into the Expression of Anger, Sadness, Fear, and Happiness. Write down the **NAMES** of each of these sub-constructs. You must divide your construct into at least two parts, but I do not recommend that you divide it into more than four parts. If your construct has many parts, it is okay to measure only two or three of them.

Define your construct and your sub-constructs. Each definition should be one or two sentences that clearly specify exactly what you want to measure. If your definitions use terms that are ambiguous or potentially unclear, provide definitions of those words. This will not be necessary for all sub-constructs.

Remember that **ALL** of the items on each of your subscales should measure **ONE** thing, and so each of your definitions for the sub-constructs should include only a **SINGLE** construct. If your definition includes the words “and” or “or” this is a strong clue that you are trying to measure more than one thing, and you need to further divide your construct.

Do not assume that I know what you mean by the name of your construct or sub-constructs. When 25 researchers on Intelligence met for several days in order to define Intelligence, they were unable to come to a consensus on a definition. Therefore, you must tell me exactly what you mean by your construct and sub-constructs. This is one of the hardest parts of this assignment.

2) Respondents

State who your intended respondents are. Avoid focusing on a group that is so small that your measure could not be used more than once. But also avoid trying to make your measure applicable to so broad a group that it does a bad job of measuring everyone.

Too narrow: First year UNLV students in Psy 101 who report they are depressed
Perhaps too broad: All English speaking adults in the US
3) Response Format

This measure can use either an agreement response scale or a frequency response scale. Decide which you will use. Then pick the precise response options you will use.

4) Brain-Storming

For each sub-construct, brainstorm at least 20 items using that response format (50 would be better, but if you don’t have at least 20, keep working at it until you get at least 20). If there are three people on your team, this is easier if you agree upon the response format and then ask each person to brainstorm as many items as they can. When drafting items, try to write both positively-keyed and negatively-keyed items. Positively-keyed items are ones where a high score on the item indicates a high score on the construct. Negatively-keyed items are ones where a high score on the item indicates a low score on the construct.

5) Critique of Item Content

Copy the name and definitions of your sub-constructs to a new section at the bottom of your document. Re-read these definitions.

Underneath the definition for each sub-construct, copy the items you brain-stormed. Then sort the items into two categories: items that measure the right construct and items that do not.

6) Critique of Item Writing

For each sub-construct, examine the items that measure your construct. Sort them into two categories: (a) items that work with your chosen response format and follow the guidelines for writing items that were discussed in class (and which are reproduced below) and (b) those that do not. With your own items, it is often hard to know if an item is clear, uses appropriate vocabulary, isn’t biased, etc. It is easier to spot potential problems with someone else’s items. Therefore, I recommend that you ask other team members or other class members to provide you with feedback on your items.

When people first start writing items, they usually find that the majority of their draft items violate the guidelines. That’s okay. As long as you brainstormed as many items as you possibly could for each sub-construct, you should still have a several items remaining after your critique.

When you have finished examining your items, check how many good items you have. If you do not have at least 6 items that measure your intended construct and that meet the item-writing guidelines, you will need to fix your items. You can try three strategies. One strategy is to brain-storm new items from scratch. If you found that most of your items measured the wrong construct, you may want to try that. Brain-storm the items in a separate document and then sort them into the three categories. Alternatively, if most of your items seem to measure a different construct, you may want to change the name and definition of the sub-construct you are measuring. If you do this, change the name and definition throughout the entire document, so I can more easily understand your final judgments of your items. A third strategy is to rephrase items that do not follow the guidelines but that seem to measure the right construct.
Continue writing and critiquing items until you have 6 – 10 items that measure your intended construct and meet the guidelines.

You may find it difficult to create 6 or more well-written items that all measure one sub-construct and all use the same response format. It is indeed difficult. However, in order to have strong internal consistency, it is necessary to have many items that measure the same construct. Because many researchers strive for internal consistency, researchers often try for at least 10 items, but for this project, 6 are sufficient.

### Guidelines for Item-Writing When There is NO Correct Answer

1. Be clear and unambiguous.
2. Avoid colloquialisms, slang, and geographically specific language.
3. Avoid the use of negatives (no, not, never, don’t, can’t, un-, dis-). If used, highlight somehow.
4. Avoid items that ask more than one thing at once, often identifiable by the use of the words “and” or “or”.
5. Avoid long item stems.
6. Avoid dependencies, such as questions that contain “if,” “because,” and "when".
7. Avoid questions that assume something, such as “My dog is playful”.
8. Use vocabulary that is suited to the test takers.
9. Avoid items that are likely to be endorsed by everyone or no one. In other words, avoid expressing ideas that are too extreme.
10. Ensure that your response options make sense with every item.
11. Avoid biased items.
12. Avoid the use of factual statements when trying to assess opinions.
13. Avoid indicating to respondents how you want them to answer.
14. Avoid asking questions to which the respondent does not know the answer.
15. Assign numbers to your response options so that higher numbers are associated with more of the construct being measured (higher frequencies, greater numbers, more agreement, more liking).
16. If one of the options on your scale indicates a complete lack of the thing you are measuring, use the number 0 to represent it.
17. Avoid absolutes: "always" "never" "completely" "absolutely".
18. Do not put your response scale in the item stem.

7) Item Selection

For each sub-construct, select 6 – 10 items that you think measure your construct and are well written. Try to pick an equal number of positively-keyed and negatively-keyed items. However, do not select items that violate good writing guidelines in order to achieve an equal balance. To indicate which items you have selected, you can put a * next to the item, or you can create a separate list which includes just those 6-10 items you have selected.

8) Instructions

Draft the instructions for your measure. Try to make them as short and simple as possible, while still being clear and helpful. If your response scale is not self-explanatory, explain the response scale in your instructions (e.g., SA = Strongly Agree). If you are asking questions that respondents may not want to answer (or may not want to answer honestly), write your instructions in a way that will encourage open and honest responding. If you need respondents
to think of some particular situation (e.g., at work, when reading) or time period (e.g., the last four months), say so. Emphasize important words as necessary. Underlining those words is often more effective than using bold.

9) Feedback form

Create a single page (it may be double sided) that contains

- the names of your team members
- the intended respondents
- the title of your measure
- the instructions for your measure
- the response options you will use
- the name and definition of your construct
- the name and definition of the first sub-construct
- the best 6 – 10 items for the first sub-construct – double space these
- the name and definition of the second sub-construct
- the best 6 – 10 items for the second sub-construct – double space these

During class, you will receive feedback on your items from other people in this course.

<table>
<thead>
<tr>
<th>What to Hand In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a single file that contains your answers to questions 1 through 9. Number your answers to help Dr. Barchard follow the development of your measure. Email Dr. Barchard this file as an attachment.</td>
</tr>
<tr>
<td>Print enough copies of your feedback form for all students who are not in your group, and bring these to class. You will receive feedback on your items from other people in class.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extra Challenge: Going Beyond the Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you are serious about designing a measure of this construct, I recommend you do one or both of the following:</td>
</tr>
<tr>
<td>1) Find existing measures of your construct, and decide what the strengths and weakness of those measures are. Try to make your measure better than existing measures.</td>
</tr>
<tr>
<td>2) Ask experts for suggestions for item content. Identify 5 - 20 experts. Email them to tell them about your idea for a new measure. Ask them to brainstorm relevant content. For example, if you wanted to measure “dog-liking”, you could ask them to list ways that they can tell that someone likes dogs. Combine the results you receive from your various experts, eliminate redundancies, and rephrase them as items.</td>
</tr>
<tr>
<td>If you want to learn more about designing new measures, you can:</td>
</tr>
<tr>
<td>1) Design additional measures of the same construct using different item types. Try creating measures using agreement items, frequency items, multiple-choice, true-false, and forced-choice, and fill-in-the-blank. For each measure, use only one type of response scale, brainstorm at least 20 items, and keep at least 6 items. Decide which is the best response format for your intended audience.</td>
</tr>
</tbody>
</table>
Please note: you may not have time to complete any of these extra challenge suggestions before this project is due. However, you probably have enough time to complete all of these suggestions before the end of the course and I would be happy to talk with you about these ideas. If you are planning to use your measure in your masters or dissertation, you may find this valuable. So, even though you may not have time to complete one of these ideas this week, do not let that prevent you from starting work on that idea if it appeals to you.