



PRACTICAL RESEARCH 1 DAY 4 - Q4

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RESEARCH INSTRUMENT

- Refers to the interview questionnaire or the data gathering tool to be constructed, validated and administered
- If researcher made, it must be tested for **validity** and **reliability**
- if adopted the student should indicate its description as to its items, scoring and qualification.
- The researcher must explain its part, and how the instrument be validated. The instrument to be used should be appended

RESEARCH INSTRUMENT (VALIDITY)

- the validity of an instrument is the extent to which the instrument measure what it is intended to measure

To what extent does intelligence test measure a persons' intelligence?

How accurately do people's annual incomes reflect their social class?

RESEARCH INSTRUMENT (VALIDITY)

- Face validity – extent to which, on the surface, a measurement instrument *looks like* it is measuring a particular characteristics
- Often useful for ensuring cooperation of people who are participating in the study
- Relies entirely on subjective judgment

RESEARCH INSTRUMENT (VALIDITY)

- Content validity – extent to which a measurement instrument includes a representative sample of the content domain being measured;
- Most often used for academic achievement; knowledge student acquired during the online classroom instruction or the new skills employee have acquired during the training program

RESEARCH INSTRUMENT (VALIDITY)

- Construct validity – extent to which a measurement instrument *accurately measure a characteristics* that cannot be observed but it assumed to exist based on pattern in people's behavior.
- Ex. Motivation, creativity, racial prejudice, happiness (none of these can be directly measured)
- When researcher ask question, present task or observed behaviors to assess the construct they should obtain some kind of evidence to measure the construct in question

RESEARCH INSTRUMENT (VALIDITY)

- Criterion validity – extent to which a measurement instrument correlate with the results of a measure of a presumably related characteristics; also known as predictive validity if the related characteristics is assessed at a future point in time
 - Personality test designed to assessed a person's shyness or outgoingness correlated with other measures of a person's sociability
 - Salesperson's effectiveness on the job correlated with the number of sales

RESEARCH INSTRUMENT (RELIABILITY)

Reliability – extent to which a measurement instrument yields consistent information about the characteristics being assessed.

- Interrater Reliability- is the extent to which two or more individuals evaluating the same product or performance gives identical judgment

Ex . Having two raters evaluate the same performance for each individual

RESEARCH INSTRUMENT (RELIABILITY)

- Test-retest reliability- it the extent to which a single instruments yield the same results for the same people on two different occasions.

Ex. Administering the same instrument to the individuals at two different point in time (a day, a week or a month apart)

RESEARCH INSTRUMENT (RELIABILITY)

- Equivalent form Reliability- is the extent to which two different versions of the same instrument (form A & form B of a scholastics aptitude test) yield the same results

Ex. Giving individual two parallel version of the same instrument

RESEARCH INSTRUMENT (RELIABILITY)

- Internal consistency reliability- it the extent to which all of the items within a single instrument yields the same results

Ex . Administering only one instrument but calculating two sub-scores for the instrument, calculating one score for odd-numbered and another score for even numbered items

Note: calculate the correlation coefficient that expresses the degree of similarities

RESEARCH INSTRUMENT (SAMPLE)

- Yes or No

Do you consider research to be important

- Recognition

Which of the following you consider in buying a phone

_____brand _____price _____specs _____others

- Completion

When I hear my phone, I _____

RESEARCH INSTRUMENT (SAMPLE)

■ Coding

I use my phone during class

____4 Always ____3 Often ____2 Sometimes ____1 Never

■ Subjective

How do you feel when you leave your phone at home accidentally?

RESEARCH INSTRUMENT (DESIGN)

- Contains different types of questions (personal attitudinal, or behavioral, sensitive questions(if applicable))
- Use Strategies for good construction
 - Use of clear language
 - If there are options do not overlap
 - Posing question that are applicable to participants
- **Valid and reliable.** Underwent pilot testing to small number of individuals

RESEARCH INSTRUMENT (EVALUATING THE QUESTIONS)

- Do you like cellphones?
- Do you believe cellphones and laptops must be allowed for use inside the classroom?
- Do you consider a quadcore processor to be an important feature of a cellphone?
- Agree or Disagree :the school should not discontinue its ban of cellular phone in class?

WRITING RESEARCH INSTRUMENT (TASK 9)

- What instrument will you use to gather data to answer your research questions? Describe the instruments.
- Why did you choose these instrument ?
- What are the major parts of your instruments including the major variables and sub-variables to be measured?
- The research questions and proposed Interview Questions
- List of references or URL link where you adapt the instrument used.

WRITING RESEARCH INSTRUMENT (TASK 9)

- The study shall use a (**type of instrument**) to provide data on the variable being studied. A validated questionnaire will be used to determine the (**your proposal**) **respondents level of engagement in an online class**. To measure the respondent attention span in an online class the researchers intend to use mobile application. These instrument are describe in the succeeding paragraph

WRITING RESEARCH INSTRUMENT (TASK 9)

- The purpose of this questionnaire is to assess the respondents level of engagement in online class in terms of three factors_____, _____, and_____. It was develop and tested for validity and reliability by (name of author, Year) for his/her research on (title of research and your reason for choosing the instrument,