



Rules for the Construction of a Questionnaire



Educational Research Center & Evaluation Office
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Diary

- Definition of a questionnaire
- Process to develop a questionnaire
- Evidence of validity of scores



Definition

Questionnaires

- They consist of a group of questions that are formulated to a sample of participants to obtain information about facts, opinions, actions, attitudes or intentions related to a topic of interest. (Medina, M., 2010).
- It can be applied in quantitative and qualitative research.
- It is also used to evaluate programs and services along with other techniques, such as interviews, to gather information from participants.



Development

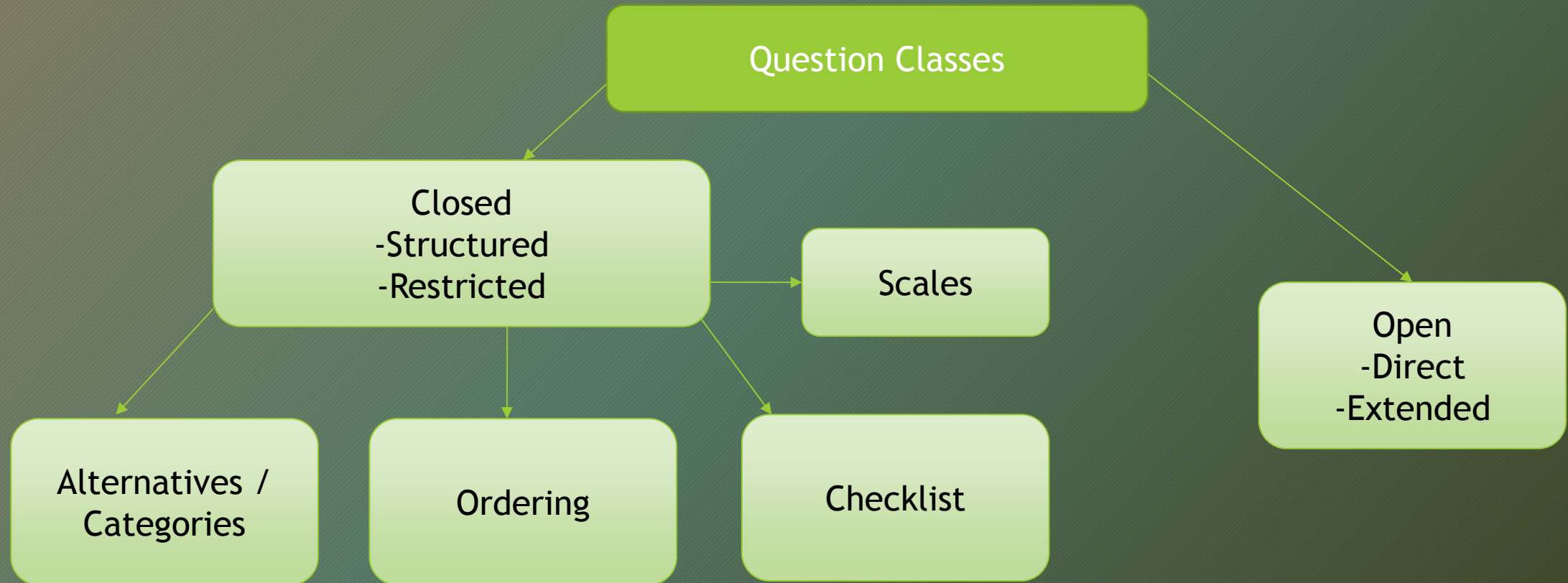
General Steps in the Construction of a Questionnaire

- Determine the purpose
- Take into account the population of interest. Who will answer the questionnaire?
- Determine and define the construct that you want to measure through the questionnaire. What do we want to measure?
- Make a literature review and verify if similar instruments have been made.
- You can consult with members of the study population to identify their interests.
- A Specification Worksheet is constructed to organize the components of the Questionnaire.

Example of a Specification Worksheet

Objectives of the Study	Components	Total items	Type of items	Identification in the questionnaire

Determine the Question Type



Scheme of the Steps to Follow - Construction

1. Describe the information that is needed / purpose (according to the standard).

¿What information do we need?

¿Who makes up my population?

2. Write the questions and choose the type of questions and measurement scales

Open questions

Closed questions

3. Write introductory text and instructions

Include objective and purpose

Clear instructions

4. Design the formal aspect of the questionnaire

Good presentation, order and format

Reasonable length

Scheme of the Steps to Follow - Review

Expert Review

Different versions are created based on the revisions.

The pilot study is carried out.

The results are analyzed and reviews are continued based on these results.



Scheme Adjusted to the Purposes of CAEP

1

- Analyze the content of the standard and determine if there are instruments previously constructed to review / develop according to the requirements of the standard and the needs identified in the area.

2

- Development of the first draft of the instrument.

3

- Review by committee members as a group of experts.

Scheme Adjusted to the Purposes of CAEP

4

- Administration in the Pilot Test.

5

- Analysis of results and review according to the findings and application if it comes from a validation process (SPSS).

6

- Final version of the sub-committee. It is sent to the Committee for the Review of Instruments of Assessment of the Steering Committee of CAEP (Center for Educational Research, CIE).



Evidence of Validity

Validity

- It refers to the representativeness of the construct that is to be measured in the instrument (eg questionnaire), to the use of scores and to how appropriate are the interpretations made of those scores (Medina, M., 2013).
- "It refers to determining how appropriate and appropriate are the uses and interpretations of the scores of an instrument, in light of the evidence obtained by different sources" (Medina, M., 2013, p.1).
- Therefore, it is required to collect different types of evidence of validity. It is not a finite process.

Evidence of Validity (Medina, M., 2010, p. 153-156)

- Apparent validity: The items and the content must be a reflection of what you want to measure. There must be a link between the two.
- Evidence based on content: How representative are the questions of the construct that you want to measure. This type of evidence begins to be collected from the main stages of construction. The review is used by experts, experts in the subject, to judge the content of the questionnaire.
- Evidence of the internal structure: the internal consistency of the answers to the items and the cohesion that they have in measuring what they want to know is sought. You can calculate coefficients such as: Cronbach's Alpha coefficient.
- Evidence based on relationship with other variables: You can compare the answers of the people to the questionnaire that is being developed, with their answers to another instrument / questionnaire that intends to measure the same construct.
- Evidence related to the "construct": This evidence involves all stages of construction and development since the literature review. A statistical analysis can be carried out, such as: factor analysis to group the items according to the responses of the people.

Example of a form to carry out the review by experts

- The item review is done by item and the characteristics are verified. Experts can indicate if they agree with the item and can even calculate coefficients to know how strongly and disagree they are with respect to them.

ÍTEM	CRITERIOS A EVALUAR										Observaciones (si debe eliminarse o modificarse un ítem por favor indique)	
	Claridad en la redacción		Coherencia interna		Inducción a la respuesta (Sesgo)		Lenguaje adecuado con el nivel del informante		Mide lo que pretende			
	Sí	No	Sí	No	Sí	No	Sí	No	Sí	No		
1												
2												
3												
....												
n												
Aspectos Generales									Sí	No	*****	
El instrumento contiene instrucciones claras y precisas para responder el cuestionario												
Los ítems permiten el logro del objetivo de la investigación												
Los ítems están distribuidos en forma lógica y secuencial												
El número de ítems es suficiente para recoger la información. En caso de ser negativa su respuesta, sugiera los ítems a añadir												
VALIDEZ												
APLICABLE						NO APLICABLE						
APLICABLE ATENDIENDO A LAS OBSERVACIONES												
Validado por:						C.I.:			Fecha:			
Firma:						Teléfono:			e-mail:			
Nota. Modificado de Formato de la Facultad de Odontología de la Universidad de Carabobo (2007).												

Recommendations

- It is recommended that the members of each of the sub-committees begin the preliminary development of their respective instruments and submit the drafts to the Educational Research Center (CIE) and the Evaluation Office, together with the representative of the Graduate School (Dr. Claudia Álvarez), for reviews and collection of validity evidence.

Questions



References:

- Medina, M. del R. (2013). "Validity" or "validation" of an instrument? *INEVA en acción*. 9(1), 1-4.
- Medina, M. del R. (2010). *Construction of questionnaires for educational research*. EXPERTS Consultants, Inc.
- Corral, Y. (2009). Validity and reliability of research instruments for data collection. *Revista Ciencias de la Educación*. 19(33), 229-247.