

Validation Proposal for Qualitative Research Scripts (Vali-Quali)

Proposta de Validação para Instrumentos de Pesquisa Qualitativa (Vali-Quali)

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ABSTRACT

Through the “garbage in, garbage out” dynamics, it is assumed that a protocol of reliable research tools is a key component for obtaining high-quality data. The lack of transparency, the methodological inconsistency, and the absence of validity criteria in qualitative studies point to a gap that has yet to be overcome. The purpose of the paper is to propose a new guideline for the validation of qualitative research: Validation for Qualitative Research Scripts (Vali-Quali), which can be applied in structured interviews, semi-structured interviews scripts for focal groups and open-ended survey questions. The proposal comprises two dimensions, content and semantics, with four attributes: alignment among objectives, adherence to constructs, explicitness, and qualitative expectancy. Between rigor and flexibility, six steps are outlined: design of the initial script, validation by judges, results overview, pretest, validated script and theoretical-empirical script. This paper proposes that the validation process goes beyond the method itself, and stimulates researchers to reflect, exercise their autonomy, and support their choices with the academic rigor that all scientific research must present.


Keywords: Qualitative research. Validation. Reliability. Data collection. Script.


RESUMO

Por meio da dinâmica “entra lixo, sai lixo”, assume-se que um protocolo de ferramentas de pesquisa confiáveis é um componente chave para a obtenção de dados de alta qualidade. A falta de transparência, a inconsistência metodológica e a ausência de critérios de validade nos estudos qualitativos apontam para uma lacuna a ser superada. O objetivo deste artigo é propor uma nova diretriz para a validação de pesquisas qualitativas, a Validação para Instrumentos de Pesqui-


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RESUMO

sa Qualitativa (Vali-Qual), que pode ser aplicada em roteiros de entrevistas estruturadas ou semiestruturadas, roteiros de questões para grupos focais, e perguntas abertas de questionários. A proposta compreende duas dimensões, conteúdo e semântica, com quatro atributos: alinhamento com os objetivos, aderência aos construtos, clareza da linguagem e expectativa qualitativa. Entre o rigor e a flexibilidade, seis etapas são traçadas: desenho do roteiro inicial, validação por juízes, visão geral dos resultados, pré-teste, roteiro validado e roteiro teórico-empírico. Este artigo propõe que o processo de validação vai além do método em si, podendo ser capaz de estimular o pesquisador a refletir, exercer sua autonomia e apoiar suas escolhas com o rigor acadêmico que toda pesquisa científica deve apresentar.

Palavras-chave: Pesquisa qualitativa. Validação. Confiabilidade. Coleta de dados. Roteiro.

Introduction

Becoming a qualitative researcher is a complex process involving a range of knowledge and skills, requiring opportunities to reflect, experience, learn, and develop oneself (JOHNSON, 2006). Therefore, during research, the diversification of data, the theoretical sensitivity, the critical attitude, the ability to assign meaning to data – that is, to understand what is or is not relevant to the research – can be adopted to evaluate the merit and the value of a given study (FLICK, 2018). It should be emphasized that qualitative researchers must consider two crucial points: *i)* the practical experience: the need to approach a phenomenon, so that one’s skills and knowledge only acquire meaning through the lived practice; and *ii)* the ability to reflect, that is, to have the sensitivity of bringing theoretical thinking into one’s emotions and perceptions (JOHNSON, 2006).

Therefore, a combination of corresponding methods and attitudes compose the core of the discussion regarding the quality of qualitative research (FLICK, 2018). A discussion of the challenges of establishing validity criteria in qualitative research is useful, especially when considering the need to incorporate rigor while one’s subjectivity and creativity are part of the scientific process (WHITEMORE; CHASE; MANDLE, 2001). According to the “garbage in, garbage out” logic, it is assumed that a protocol of reliable research tools is a key component to obtaining high-quality data, as it can facilitate the interview process systematically, coherently

and comprehensively, through the prior delimitation of the questions to be explored. It can also increase the effectiveness of the interview process, allowing the collection of complete information, within the estimated time, and reaching a high level of qualitative richness (YEONG *et al.*, 2018).

In line with that perspective, Manzini (2004) emphasizes the importance of planning the scripts so that the process of information collection can achieve the intended objectives, therefore, script analysis can be regarded as a tool for researchers to symbolically interact with something they produced, preparing themselves for the actual data collection stage. There is evidence regarding the lack of consistent reporting of methodological decisions in qualitative studies (OSPINA; ESTEVE; LEE, 2018), besides the lack of transparency in the data collection process presented in previous assessments (STEWART, 2012; HADI; CLOSS, 2016).

Haven and Van Grootel (2019) and Bohannon (2015) point out that scientific research needs to be certified through protocols to distance itself from subjectivities throughout the planning, collection and analysis process, ensuring more rigorous experimental bases for qualitative research. Such aspects tend to increase the probability of reproducing studies and results. In particular, in the qualitative approach, Van Bavel *et al.* (2016) highlights that the research environment itself influences pre-existing conditions, which can impact its results. Aguinis and Solarino (2019) emphasize the need to catalyze the increase in the degree of validity and transparency in qualitative research, in order to guarantee its quality, transparency, replicability, reliability and rigor.

O'Connor and Joffe (2020) also indicate benefits in the development and application of validity in qualitative research, allowing transparency, communicability and systematicity in convincing the reliability of the results. Tracy and Hinrichs (2017) defend the development of criteria for qualitative research in order to reduce the subjectivity of quality in this type of approach. These authors indicate the existence of models that assess the quality of qualitative research, *posteriori*, considering theme, rigor, transparency, credibility, resonance, degree of significant contribution and procedural ethics, but do not reveal a method for validating the consistency of the instrument of research, that is, *a priori*.

We understand that quantitative approaches can be used to evaluate the quality of qualitative research, aiming for a systematic data collection process capable

of providing “an audit trail” for the replicability of the stages (MORSE *et al.*, 2002; MAYS; POPE, 2000). Thus, a complex challenge concerning qualitative research must be faced: how can it advance as a field of knowledge, with the necessary methodological rigor, while safeguarding the researcher’s space for reflection and creativity? The Validation for Qualitative Research Scripts (Vali-Qual) proposed in this paper synthesizes an early effort in this endeavor, the proposal comprises two dimensions, content and semantics, with four attributes: alignment among objectives, adherence to constructs, explicitness, and qualitative expectancy. Between rigor and flexibility, six steps are outlined: design of the initial script, validation by judges, results overview, pretest, validated script and theoretical-empirical script. The Vali-Qual provides integration and systematization between the steps, reliability and transparency criteria, decision-making support, and researcher’s protagonism. Hence the novelty and innovation of the methodological proposal of this paper.

Theoretical Approach

The research methods should be well established and attentive to the correct operational measures for the concepts studied. However, we emphasize that when dealing with research quality, there are no ready solutions, but instead, several ways to improve validity, requiring that researchers and readers exercise their reflection and judgment from an intersection between art and method (FLICK, 2018). In that context, Morse *et al.* (2002) defend the use of reliability and validity to achieve rigor in qualitative research, allowing researchers to minimize biases and enhance overall quality by implementing verification and self-corrective strategies during the research process.

Therefore, Morse (2020) reinforces that the themes to be addressed in qualitative research collections must be linked to the literature and the specific context addressed. In addition to this step, for the construction of instruments that allow greater rigor in qualitative research, Malmqvist *et al.* (2019) recommend the use of pilot studies to assess the adequacy and effectiveness of the instruments to be used in qualitative research, to identify possible deficiencies in the field collection with small sample of the target audience.

Withdrawing from the terminological discussion, the debate presented herein regards the strategies and possibilities of incorporating rigor into qualitative research, so that several mechanisms can be intertwined to build a reliable product (CRESWELL; CRESWELL, 2017). In this sense, Morse *et al.* (2002) argue that strategies to establish methodological rigor and reliability in the studies used at the end of this study (*post hoc*) constitute a severe risk to researchers, as there may not have enough time for a reevaluation. This, in turn, may compromise the identification and correction of errors before the stages of development and analysis.

Part of the discussion pervades recurring criticism of qualitative studies, such as lack of rigor, transparency, and justifications that may underpin data collection and analysis (ANDERSON, 2010; HADI; CLOSS, 2016). Despite the need to achieve rigor in scientific research (HADI; CLOSS, 2016), one of the challenges is that it is specifically more challenging to maintain, evaluate and demonstrate rigor in qualitative studies (ANDERSON, 2010). This path becomes more complex because qualitative research implies conscious and prudent attitudes on the part of the researcher, in addition to the common criteria expected from all scientific research, and its value will largely depend on the researcher's ability to convey credibility (HAYASHI; ABIB; HOPPEN, 2019; OSPINA; ESTEVE; LEE, 2018).

In a qualitative multiple case review, Stewart (2012) pointed out weaknesses concerning interview detail, sampling, and evidence analysis. Ospina, Esteve and Lee (2018), through a review of qualitative articles published in administration, reported that only 21.9% of the studies adopting interviews presented something about the content of the questions used. Similar results were found in health papers, where none of the reviewed qualitative studies showed any verification or reflexivity tool to ensure accuracy (HADI; CLOSS, 2016). Faced with such methodological challenges, the scientific community has been making efforts to elaborate guidelines to help qualitative researchers in this process (MORSE *et al.*, 2002; ANDERSON, 2010; HAYASHI; ABIB; HOPPEN, 2019; JOHNSON; ADKINS; CHAUVIN, 2020). In this sense, Whittemore, Chase and Mandle (2001) present several primary and secondary criteria for achieving validity in qualitative research, according to Chart 1.

Chart 1. Evaluation of Primary and Secondary Validity Criteria

Criteria		Evaluation
Primary criteria	Credibility	Do the research results reflect the experience of participants or the context in a believable way?
	Authenticity	Does a representation of the emic perspective exhibit awareness to the subtle differences in the voices of all participants?
	Criticality	Does the research process demonstrate evidence of critical appraisal?
	Integrity	Does the research reflect recursive validation checks, as well as an accurate presentation of findings?
Secondary criteria	Explicitness	Were methodological decisions, interpretations and biases of the researcher concerned?
	Vividness	Does it have dense and faithful descriptions portrayed with skill and clarity?
	Creativity	Does it have creative ways of organizing, presenting, and analyzing data?
	Thoroughness	Do the findings convincingly address the issues raised through completeness and saturation?
	Congruence	Is there evidence of articulation between the research question, data collection and analysis procedures, current study results, and previous studies in different contexts? Has the investigation been implemented in ways that are sensitive to the nature of human, cultural, and social contexts?

Source: Adapted from Whittemore, Chase and Mandle (2001, p. 534).

Validity cannot be perceived in isolation. Instead, it constitutes a continuous and dynamic process that must be followed from the beginning of the research until its subsequent publication (HAYASHI; ABIB; HOPPEN, 2019). Furthermore, the ethos of qualitative research demands responsibility to ensure methodological rigor, while still embedded with creativity, criticism, and self-reflexivity on the part of the researcher (OSPINA; ESTEVE; LEE, 2018; HOLMLUND; WITELL; GUSTAFSSON,

2020). In this context, Daniel (2018) has developed a framework to evaluate qualitative research (TACT) using four criteria: (T)rustworthiness, (A)uditability, (C)redibility and (T)ransferability. Therefore, the responsibility of the scientific community to look for ways to ensure rigor in qualitative terms is understandable, by exploring agreements around minimum standards, without compromising, however, the flexibility needed to accommodate the multiple approaches and interpretive practices inherent in qualitative research (JOHNSON; ADKINS; CHAUVIN, 2020; OSPINA; ESTEVE; LEE, 2018).

Related to the validation of quantitative scripts, Hernández-Nieto (2002) proposes a Coefficient of Content Validity (CCV), which allows calculating the individual content validity for each item (CCVc) and the overall validity of the instrument (CCVt) using the judges' scores. The author proposes three evaluation criteria: language explicitness, practical relevance and theoretical relevance. This reinforces that qualitative research needs its own reliability paths.

In this sense, increasing the reliability of qualitative research covers several aspects, involving epistemological issues, critical literature review and connection between collection techniques and analytical procedures, and qualitative researchers must strive to present the processes clearly, concisely and trustworthily (ROSE; JOHNSON, 2020). Excellent qualitative research is the one that is meaningful, well reported and well conducted, with sound and significant results, for academic and practical purposes (HOLMLUND; WITELL; GUSTAFSSON, 2020). Finally, the value of qualitative research also relies in the sensitivity to the different meanings and characteristics that can be extracted from the phenomenon under investigation (O'CONNOR; JOFFE, 2020).

Therefore, considering the relevance of the data collection process and the need to advance transparency in research methodology in order to improve the methodological rigor and transparency of qualitative research (OSPINA; ESTEVE; LEE, 2018; HOLMLUND; WITELL; GUSTAFSSON, 2020), this paper proposes a new validation guideline for qualitative researchers: the Validation for Qualitative Research Scripts (Vali-Qual).

Elaboration of the Guideline for the Validation for Qualitative Research Scripts (Vali-Quali)

We emphasize that Vali-Quali is a guiding base for the construction and validation of qualitative instruments, such as structured interviews, semi-structured interviews scripts for focal groups and open-ended survey questions. Undertaking visions similar to ours (MORSE *et al.*, 2002; MAYS; POPE, 2000), we accept the challenge of proposing broad concepts of validity and relevance used in quantitative research while maintaining the essence of qualitative research at all stages. The method increases transparency and facilitates decision-making while remaining flexible, as required by qualitative research. Thus, we expect that the researcher can be the protagonist in the process, proposing a dialectic between theory and empiricism and properly justifying their choices while reflecting on their own instrument.

DIMENSIONS, ATTRIBUTES, AND SCORE RANGES

Flick (2018) argues that there is not a single correct method to be adopted in qualitative research, but there must be a form of commitment anyway. Therefore, the researches should be planned and based on principles and reflections, such as the definition of clear and objective goals and standards, as well as the process transparency and evaluation. The author emphasizes that the quality of the qualitative research process can be improved with the participation of other researchers so that joint reflection on the processes can be an instrument for quality management in qualitative research. The process of data collection should be described in enough detail so that other researchers can follow the same steps, which is the assumption of research reliability (STENFORS; KAJAMAA; BENNETT, 2020). Therefore, we propose a guideline for the Validation for Qualitative Research Scripts (Vali-Quali). The proposal comprises two dimensions (Content and Semantics) and four attributes (Alignment with Objectives, Adherence to Constructs, Explicitness, and Qualitative Expectancy). Each score, ranging from 1 to 5, corresponds to a qualitative value (none, low, medium, high, and full), according to Chart 2.

Chart 2. Dimensions, Attributes, Guidelines, and Score Ranges for Validation for Qualitative Research Scripts (Vali-Qual)

CONTENT DIMENSION		ATTRIBUTES				
		1 (None)	2 (Low)	3 (Medium)	4 (High)	5 (Full)
SEMANTIC DIMENSION	Alignment with the objectives (Consistency with the research problem and the stated objectives)	The item does not present any degree of alignment with the research objective.	The item presents a low degree of alignment with the research objective.	The item presents a medium degree of alignment with the research objective.	The item presents a high degree of alignment with the research objective.	The item presents a total alignment with the research objective.
	Adherence to the construct (Consistency with analytic paradigms and constructs)	The item does not present any degree of adherence to the construct investigated.	The item presents a low degree of adherence to the construct investigated.	The item presents a medium degree of adherence to the construct investigated.	The item presents a high degree of adherence to the construct investigated.	The item presents total adherence to the construct investigated.
	Explicitness (Consider target audience; short and simple sentences; evaluation of a single observable, explicit and clear action; avoid ambiguous, overly technical, or negative expressions)	The item content does not present any degree of explicitness.	The item content presents a low degree of explicitness.	The item content presents a medium degree of explicitness.	The item content presents a high degree of explicitness.	The item is fully explicit in all its content.
CONTENT DIMENSION		The item does not indicate any degree of expectation that the response will have exploratory-qualitative characteristics.	The item indicates a low degree of expectation that the response will have exploratory-qualitative characteristics.	The item indicates a medium degree of expectation that the response will have exploratory-qualitative characteristics.	The item indicates a high degree of expectation that the response will have exploratory-qualitative characteristics.	The item indicates a full expectation that the response will have exploratory-qualitative characteristics.

Source: Based on Hernández-Nieto (2002); Pasquali (2010); Whittimore, Chase and Mandle (2001); Flick (2018); as well as empirical evidence.

DESIGNING THE SCRIPT EVALUATION INDICATOR

To create the calculation formula of the Script Evaluation Indicator for Vali-Qual, the following process was carried out:

- i. A probability analysis was conducted, that is, a spreadsheet containing all the possibilities of judges' answers regarding each question was prepared, according to the example outlined in Table 1.

Table 1. Analysis of the possible judges' responses

Average						
Alignment with Objectives	Judge 1	Judge 2	Judge 3	Judge 4	Judge n	Mean
Question 1	3	5	3	3	2	3.2
Adherence to Constructs	Judge 1	Judge 2	Judge 3	Judge 4	Judge n	Mean
Question 1	1	1	2	3	1	1.6
Explicitness	Judge 1	Judge 2	Judge 3	Judge 4	Judge n	Mean
Question 1	3	5	3	4	5	4.0
Qualitative Expectancy	Judge 1	Judge 2	Judge 3	Judge 4	Judge n	Mean
Question 1	2	4	5	1	1	2.6
Total Average						2.9

Source: Prepared by the authors.

- ii. Subsequently, the descriptive statistics of mean, mode, standard deviation, and coefficient of variation were calculated to analyze the behavior of the judges' responses.
- iii. In addition to the mean scores showing the central tendency of the judges' evaluation, the analyses included the mode to verify which would be the evaluation of most judges, as well as the standard deviation and the coefficient of variation to analyze the dispersion of the analyses.

All analyses considered, we observed that the mean would be enough to define the criterion of evaluation of the questions of the research questionnaire since this included the necessary combination to analyze the variation of the answers and the opinion of most judges.

Given this scenario, the evaluation indicator for the questions of the qualitative research script was defined into two phases:

- i. The first phase is to calculate the mean of the judges notes to each question of the content dimension. If the result for the “Alignment with Objectives” or the “Adherence to Constructs” have mean equal or lower than 2.0, then you can choose to automatically eliminate the question. You can keep the question if you justify with a good theoretical reason. If the mean is greater than 2 for both attributes of the content dimension, then you go to phase two.
- ii. The second phase is to calculate the mean for the semantic dimension and finish the construction of Table 1.

For the final evaluation, the following formula can be used:

Figure 1. Script Evaluation Indicator for Vali-Qual

$$Q_i = \sum_{j=1}^n \sum_{a=1}^4 \frac{S_{ja}}{a \cdot n}$$

S = ScoreQi = Question
i = question number;
where i = 1 to nq
j = judge
a = number of attributes = 4
n = number of judges
nq = number of questions

Source: Prepared by the authors.

Although the formula seems complex, it is quite simple. In practice, the researcher just has to add up all the scores (S_{ja}), that is, all the scores of the judges (j) for each evaluated attribute (a), and divide by the total number of items, that is, the number of judges (n) times the number of attributes (a). For example, if there are 10 questions, the question number “i” will be from 1 to 10 (i = 1 to 10). So Q_1 repre-

sents Question 1, Q_2 represents Question 2 and so on. If there are 5 judges, then the number of judges “n” will be equals to 5 ($n = 5$) and the judges “j” will be from 1 to 5 in which J_1 represents judge 1, J_2 represents judge 2 and so on. As there are 4 attributes (a), the “a” in the sum goes from 1 to 4. At the end, all scores (S) will be added and divided by the total number of items as previous explained.

CRITERIA FOR ACCEPTANCE OF SCRIPT QUESTIONS

The criteria for accepting the script questions were defined according to Table 2.

Table 2. Acceptance criteria

Acceptance Criteria	
Full approval	Mean score of $Q_i = 5.0$
Optional Modification	Mean score of $Q_i \geq 4.5$ and < 5.0
Required Modification	Mean score of $Q_i \geq 2.5$ and < 4.5
Exclusion	Mean score of $Q_i \geq 1.0$ and < 2.5

Source: Prepared by the authors.

The average score of 5 for approving the script question takes into account the mode by which all of the judges established a maximum score (5) for the item. The optional modification range, besides the mean cut, also consider the mode by which most of the judges established a maximum score (5) for the item, a low coefficient of variation less than 0.25 and a standard deviation equal or less than 1.0. The exclusion range, besides the mean cut, consider a coefficient of variation higher than 1.0 or that none of the judges gave a total approval of the item (score = 5). The mean score of $P_i \geq 2.5$ and < 4.5 indicates a required modification of the item. All the ranges are also based on the representativeness of the scores themselves: 1 = none; 2 = low; 3 = medium; 4 = high; and 5 = total. We emphasize that the established criteria seek rigor and transparency in the elaboration of the data collection instrument, however, we recognize the amplitude and flexibility that the qualitative field requires and, therefore, the researcher has autonomy in the decisions, as long as they are theoretically supported.

A GUIDELINE FOR THE VALIDATION FOR QUALITATIVE RESEARCH SCRIPTS (VALI-QUALI)

Systematically reflecting on the research process, we propose six steps, detailed in 14 actions, for Validation for Qualitative Research Scripts (Vali-Quali): design of the initial script, validation by judges, results overview, pretest, validated script and theoretical-empirical script, as shown in the Flow Chart from Figure 2.

The contribution and ineditism of the paper are in the integration of the six steps. The Vali-Quali walks along with the researcher from the construction of the instrument until the itensdata collection, which provides, on one hand, greater reliability, transparency, and facility in decision-making, and on the other hand, it evidences the researcher as the protagonist of the process.

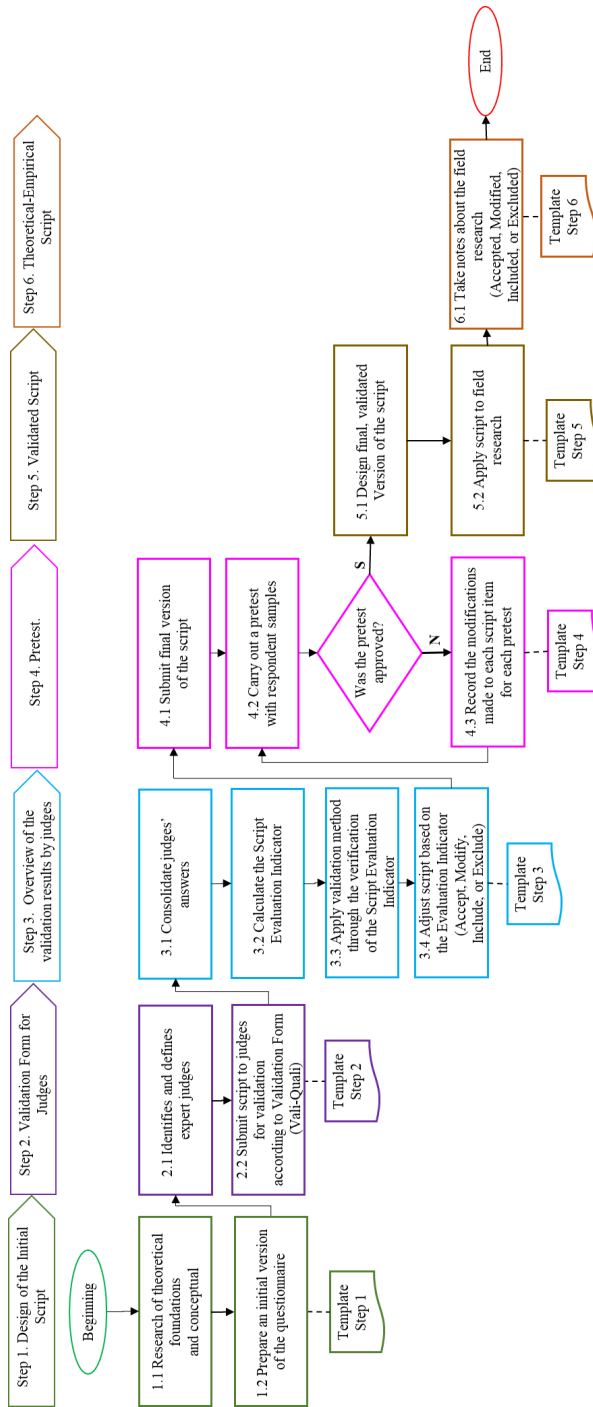
In the first step concerning the design of the initial script, the constructing the data collection instrument refers to the theoretical and conceptual foundations that support the questions (Action 1.1), as recommended by Morse (2020). According to Pasquali (2010), by designing the instrument, the items should not be collected randomly; instead, they must be elaborated or selected according to the operational definitions of the construct, the theoretical foundations, and the empirical evidence. Categories and themes are welcome because, besides contributing to the conceptual framework of the research, they can help the theoretical discussion expected in the data analysis. Based on this, the researcher will elaborate the proposal of questions aligned to the reasoning and objectives of the research (Action 1.2), having, as a product of this stage, the completion of the Template available in Chart 3.

Chart 3. Template Step 1 – Design of the Initial Script

Design of the Initial Script		
Theoretical and conceptual framework	Authors	Proposed Questions
		Question 1 _p
		Question 2 _p
		Question n _p

Fonte: Elaborado pelos autores.

Figura 2. Flow chart for the Validation for Qualitative Research Scripts (Vali-Qual)



Source: Prepared by the authors.

The next step refers specifically to validation by the judges. In this sense, the form was elaborated aiming at the qualitative feedbacks, containing fields for remarks and observations in each item, besides other suggestions, according to Chart 4. This method proposes that the script validation form is submitted to at least three judges who are experts in the subject. Considering the complementarity of knowledge in the validation process, we propose the adoption of three judge profiles (Action 2.1): a) the practical expert (knowledge about the phenomenon to be studied); b) the theoretical expert (knowledge of the theory adopted); c) the methodological expert (knowledge of the method to be adopted). At least one expert from each profile is expected, respecting the minimum number of three judges. The collection of data with the judges can be made by using different tools, including electronic forms, to facilitate de operation for the judges and the researcher.

Chart 4. Template Step 2 –Validation Form for Judges

Research Data		Researcher's name and contact information:																						
		Research objective(s):																						
		Investigated construct(s):																						
		Target audience for the application of the research instrument:																						
		Research information, relevant concepts, dimensions adopted:																						
		1 – NONE			2 – LOW			3 – MEDIUM			4 – HIGH			5 – TOTAL										
Theoretical and conceptual framework ↓	Attributes	Degree of alignment to the research objectives					Degree of adherence to the construct					Degree of explicitness of the question					Degree of qualitative expectancy of the response					Remarks		
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
	Question 1			x						x						x							x	
	Question 2	x						x						x						x				
	Question n			x					x					x						x				
		Suggestion of new items:																						
		Comments, criticism, and suggestions:																						

Source: Prepared by the authors.

After the validation by the judges, we propose the compilation of the results into an overview of validation results (Action 3.1). Therefore, each attribute should present the mean scores given by the judges, as well as the General Score of the Question (Action 3.2), to be calculated by the Script Evaluation Indicator for the Validation for Interview and Focus Group Scripts (Figure 1). While observing the General Score, the researcher must pay attention to the criteria of acceptance, exclusion or modification of questions (Action 3.3). However, it should be noted that any adjustments should be made considering the mean values of each attribute (Action 3.4).

A significant achievement is the qualitative feedback from the judges, because a possible forgotten or inappropriate question or a research suggestion are inputs that directly affect the study's results and merits. Considering the symbiosis between researcher and research (HAYASHI; ABIB; HOPPEN, 2019), this step is also reserved for researchers to expose their choices and justify their changes. We emphasize that the scores are mere guidelines: the researcher must decide which questions should be maintained, altered, included or excluded. However, these choices are expected to be justified when pertinent. The template in Chart 5 shows how the information from this step is consolidated.

Quadro 5. Modelo Passo 3 – Visão geral dos resultados de validação por juízes

QUESTION	Alignment with the objective(s)	Adherence to the construct(s)	Explicitness	Qualitative expectancy	General Score of the Question (Evaluation Indicator)	Observations by judges	Researcher's observations	Approval, exclusion, modification or inclusion (*)
P1								
P2								
Pn								

* The judge can propose to insert a new item in the initial script.

Source: EPrepared by the authors.

It is noteworthy that the comments from the judges can contribute to improve the wording of the questions in the qualitative instrument script, therefore achie-

ving greater clarity at the time of data collection. The researcher's autonomy in the decision regarding any alterations from the judges' feedbacks is a crucial point in the method, with some possibilities: *i)* the researcher can alter a question reflecting on the comment from a single judge, considering they had not thought from that perspective, and agreeing that the change will effectively contribute to improving data collection; *ii)* the researcher can disregard the comment from a single judge, if they disagree, taking into account that other judges did not present any inquiries regarding the point made by the first judge; *iii)* even if the researcher does not agree with a judge's comment, when analyzing that other judges presented the same argument, the researcher may seek new theoretical foundation to reflect on the issue and decide whether it is worth making the modification proposed by the majority of the judges; *iv)* even if the scores are high, the researcher may exclude a question based on a judge's comment indicating redundancy in the questions, leaving the data collection instrument too long; *v)* on the other hand, the researcher may maintain redundant questions considering that strategically redundant data can contribute to the complementarity and confirmation of the data to understand the phenomena. The intention with these examples is not to limit all the possibilities of decision making, but to illustrate the flexibility aspect granted to the researcher when consolidating a qualitative research instrument.

Considering the changes, exclusions, or inclusions made in the previous step, the researcher should perform a pretest of the instrument validated by the judges (Action 4.1). For Manzini (2004), the pretest, through a preliminary interview (s) with individuals who have similar characteristics to the target audience, allows to confirm the alignment with the objectives, verify the structure, and attest to the clarity of the script, making its refinement possible. For this purpose, each part of the procedure must be designed and implemented exactly as it would be in the actual data collection. Aligned to this, Malmqvist *et al.* (2019) adopted a pilot study in their research, making it possible to test the instruments of qualitative research, allowing some improvements, and concluding that the modified version generates greater efficiency for later application of the research instrument.

Based on the pretesting and problem-solving logic of questionnaires presented by Aaker, Kumar and Day (2001), we propose, at this stage: *a)* that the instrument is tested using a small sample (Action 4.2), regarding content and semantic criteria,

order of questions, and timing suitability; *b*) in case the pretest reveals the need for additional changes, the problem must be corrected and a new pretest performed (Action 4.3). The process will then be repeated as many times as necessary until the instrument is saturated for its application.

Hence, we propose that the pretest be performed with a profile of respondents with homogeneous characteristics to the research population. If the researcher identifies gaps, the script should be corrected and a new pretest should be applied to check that the adjustments made were enough, as well as to identify potential new weaknesses (Action 4.1). In the “Observations” field in Chart 6, a space is reserved for informing the limitations of the instrument, such as “Don’t Know” answers; difficult, ambiguous, superfluous or embarrassing questions; the proportion of people who declined to participate in the interview; and the comments made by respondents on certain questions. Based on the pretests, in addition to the adjustments, the researcher can insert or remove questions, as shown in Chart 6.

Chart 6. Template Step 4 – Pretest

PRETEST				
The criteria of content, semantics, order of questions, and timing suitability should be observed				
	Pretest 1	Pretest 2	Pretest N	
Questions	Adjustments (if required)	Adjustments (if required)	Adjustments (if required)	Observations
Question 1				
Question 2				
Question n				

Source: Prepared by the authors.

When the analyzed attributes reach a satisfactory degree (Action 5.1), that is, when the pretest shows that the instrument is mature enough, the researcher will have a validated script (Chart 7) to be applied in field research (Action 5.2). The final script, duly validated by judges, pretested and based on the researcher’s decisions,

exposes the level of maturity of the research process and can contribute to the transparency and reliability of the study. This, in turn, allows a comparative analysis between the initial script and the validated script.

Chart 7. Template Step 5 –Validated Script

Validated Script			
Theoretical and conceptual framework	Authors	Proposed Questions	Validated Questions
		Question 1 _p	Question 1 _v
		Question 2 _p	Question 2 _v
		Question n _p	Question n _v

Source: Prepared by the authors.

In recognizing the emerging dynamics of qualitative research (CRESWELL; CRESWELL, 2017), the proposed guideline does not eliminate the various aspects that may arise during a study, after all, the instrument can still be refined in the field. Therefore, the last step is reserved for the researcher to present, if necessary, the changes made in the field research (Action 6.1), as shown in Chart 8. Considering the subjectivity, adaptability, and flexibility of qualitative research (FLICK, 2018), the theoretical-empirical script completes the cycle between theoretical robustness and practical relevance that qualitative research implies.

The methods used in the research can influence research objects, which is exactly why a clear report of the data collection process is necessary (MAYS; POPE, 2000). The qualitative research instruments must be reliable, following a systematic protocol and scientific principles. However, we acknowledge that the researcher plays a central role in qualitative research, thus we encourage reflexivity during this process. We emphasize that the proposed steps are recommended as a “safety guide” to assist researchers in planning, designing, and refining their data collection instruments. Vali-Qual can be seen as an alternative to provide greater methodological rigor.

Chart 8. Template Step 6 –Theoretical-Empirical Script

Theoretical-Empirical Script			
Questions	Field research observations (Acceptance, modification, exclusion or inclusion)		
	Script application 1	Script application 2	Script application n
Question 1	OK	Exclusion	-
Question 2	OK	Order change (question 3 preceded question 2)	Order changed
Question 3	OK	OK	OK
Question 4 – Inclusion of a new question	(New item should be inserted)	OK	OK

Source: Prepared by the authors.

Yet, it is not intended to be unalterable and once the transparency criteria are met and the validation process steps are met, the format, layout, or design can be adapted. Our proposal is represented in a didactic way, but we understand that in articles with a limited number of words, the researcher may resort to synthetic arrangements, tables or other ways to present the steps more objectively. We also suggest that Vali-Qual should be used in dissertations and theses for greater clarity in the process of building qualitative data collection instruments. We propose that Vali-Qual should be part of the data collection process, but also expect researchers to be aware of other interviewing guidelines (MCGRATH; PALMGREN; LILJEDAHL, 2019), as well as credibility and rigor criteria applied to qualitative research (JOHNSON; ADKINS; CHAUVIN, 2020; LIAO; HITCHCOCK, 2018; DANIEL, 2018).

DISCUSSION, IMPLICATIONS, LIMITATIONS AND NEW RESEARCH INSIGHTS

The construction and validation of research instruments is a relevant part of the research process, which may interfere with the overall quality of results. Therefore, researchers may consider planning, elaboration, and validation of qualitative scripts as strategic aspects. Furthermore, flexibility and reflexivity are required for qualitative research, along with academic rigor (CASSELL *et al.*, 2009). Therefore,

Vali-Quali seeks more spaces for reflection and flexibility than qualitative research implies. We clarify that the use of quantitative metrics would be helpful to substantiate the assessment and to enable the acceptance, exclusion or modification of questions.

We understand that Vali-Quali can constitute an alternative path of validity in the process of building qualitative scripts, which can contribute to the rigor and transparency of qualitative research. We hope that the method will also serve as a learning mechanism for future researchers on several problems that may arise in the construction of their qualitative collection instruments. From the organizational point of view, we understand that Vali-Quali can allow a new way to systematize, analyze and understand the reality of organizations, since it is possible to collect opinions of the actors, with the necessary rigor, which can help guide decision-making and management strategies.

When the six steps are put together, they are what genuinely constitute the Vali-Quali dynamics, and may reflect the transparency of the process, the refinement of the instrument, as well as the maturity of the research and its methodological consistency. By considering transparency as a key component to validity in qualitative research, rigor in the research process can be achieved when each element of the study methodology is complete, accurate, systematic, and transparent (HAYASHI; ABIB; HOPPEN, 2019). Corroborating the rigor logic of Johnson, Adkins and Chauvin (2020), Vali-Quali challenges researchers to find theoretical grounding for scripts and carry out careful planning and diligent application. This, in turn, promotes honest communication both between researchers and their research – which refers to the very concept of reflexivity (CASSELL *et al.*, 2009) – as between researchers and their readers. Therefore, Vali-Quali seeks to minimize the risk of validation at the end of the study and can be a learning and maturing instrument for researchers themselves, as recommended by Hayashi, Abib and Hoppen (2019).

However, certain limitations must be addressed., We recognize that there is no empirical basis for stating that the use of Vali-Quali will improve the quality of qualitative research studies. However, we argue that an adjusted research script is an important step towards obtaining high-quality data, so initiatives such as Vali-Quali are designed to foster a scientific effort that can guide better conduct and transparency in scientific research.

When submitting the script to professionals experienced in the subject, as well as practical validation through the pretest (s), a process of self-reflection is expected by the researcher through feedback. The existence of a field to be filled with a qualitative critique of the evaluators can contribute to the identification of possible missing questions. In addition to the adjustments regarding explicitness and qualitative expectancy, observations on the alignment to the objectives and adherence to the investigated constructs may help refine the data collection instruments. Therefore, we expect that the researcher can go to the field having the best possible version of the script, minimizing risks and clarifying possible biases. However, we emphasize that, although Vali-Quali may contribute to greater methodological rigor, qualitative researchers are expected to present a detailed description and careful alignment of the research, involving context, research objectives, theoretical foundations, collection methods and detailed data analysis, results and discussion (ROSE; JOHNSON, 2020; STENFORS; KAJAMAA; BENNETT, 2020).

Likewise, we invite mentors to invest in this initiative as well. Journal editors and reviewers should also emphasize rigor, encourage detailed reporting of qualitative studies, and propose strategies to enable a more thorough methodological description in the articles, corroborating the notes by Liao and Hitchcock (2018) and Hadi and Closs (2016). We hope that Vali-Quali can encourage researchers to take advantage of the possibilities surrounding qualitative research, with the commitment, discipline, and rigor required, but at the same time embedded with authenticity, creativity, and reflexivity, which in turn will translate into innovative ideas to advance the field. For these reasons, we encourage academics, researchers, reviewers, and editors to reflectively engage with this debate, sharing the responsibility for helping qualitative researchers in the future.

We recognize that the validity criteria specified for qualitative research have been under debate and require better definitions. Validity is implied as a property of the data, instead of the research method chosen to investigate the phenomenon. When adopting a particular research method, validity is not guaranteed. There must be a balance between the rigor of data collection and processing methods along with the interactive, iterative and subjective sensitivity established between the researcher and the phenomenon, in a permanent attempt to nullify biases and achieve

the possible meanings of the data. This concern, in turn, tends to strengthen the reliability of qualitative research.

Based on Morse *et al.* (2002), Mays and Pope (2000), and Daniel (2018), we agree that there is considerable debate on how qualitative research should be evaluated and we acknowledge that there is not a definitive path. In this sense, we emphasize the need to advance qualitative research, bringing up new ways of thinking scientific inquiries.. The quality of qualitative research depends on several factors, among which the validation of the data collection instrument may constitute a stage of development, improvement, and reflection about research. Therefore, from the theoretical basis to the exclusion or modification of a given item, we must consider the confidence and validity of the study, without harming the researcher's autonomy and creativity.

The Vali-Qual is applicable to scripts of structured interviews, semi-structured interviews scripts for focal groups, and open-ended survey questions of questionnaires, as there is a margin to apply the preliminary validation criteria to qualitative data collection. On the other hand, for example, unstructured interviews, ethnographic studies, and observation (participant or not), although presenting the possibility of establishing previous scripts, has its own systematization of research, in which we understand that Vali-Qual would not be appropriate for its application as a whole, however, the criteria for validity in these types of research can be used, such as alignment with the objectives and adherence to the construct, proposed in that paper.

The Vali-Qual model, although it has already filled a gap in the validation aspects in qualitative research - in cases where it intends to collect primary data through a script or reference guide to observe the investigated phenomenon -, there is still a demand for a future research agenda including new criteria for mixed approach survey (quali-quant). Furthermore, it is appropriate to think of future studies with validation models for qualitative research instruments in which Vali-Qual may not be appropriate, thus expanding the rigor of scientific research in its various formats. Finally, it is expected that practical cases using Vali-Qual can expand the discussion in the area of research methods and techniques.

Conclusion

The purpose of the paper is to propose a new guideline for the validation of qualitative research: Validation for Qualitative Research Scripts (Vali-Quali), which can be applied in structured interviews, semi-structured interviews scripts for focal groups and open-ended survey questions. The proposal comprises two dimensions, content and semantics, with four attributes: alignment among objectives, adherence to constructs, explicitness, and qualitative expectancy. Between rigor and flexibility, six steps are outlined: design of the initial script, validation by judges, results overview, pretest, validated script and theoretical-empirical script. The integration of the six steps emphasizes the scientific and ineditism contribution of the paper since Vali-Quali supports the researcher from the construction of the instrument until the data collection.

The validation guideline proposed herein aims to improve the scientific investigation process so that through the feedback from judges the researcher can reflect on the product of their data collection, as well as its influence on the research results. We hope that Vali-Quali will strengthen the researcher's capacity for argumentation, contributing to the affinity with the instrument and serving as preparation for field research. Moreover, the validation process can contribute to the development of collaborative research networks, as it can bring researchers from different universities or centers closer together.

Finally, it is expected that the Vali-Quali provides ways to discuss the role of the researcher-participant partnership in knowledge building from the many decisions to be made during the research process. Considering that qualitative research starts from the assumption of symbolic interactionism, the exchange between researchers and participants and the collective social construction of knowledge are fundamental. Therefore, this paper proposes that the validation process goes beyond the method itself, and stimulates researchers to reflect, exercise their autonomy, and support their choices with the academic rigor that all scientific research must present.

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