Research Design and Methodology II

David D. Reedy

Omega Graduate School

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Professor

Dr. Sean Taladay

Assignment

### *Developmental Readings*

Review Assignment #3, the course essential elements, assigned readings, and recommended readings to identify selections of books and scholarly articles to identify and select developmental reading sources and entries.

* Refer to the “[Student Guide to Developmental Readings](https://drive.google.com/file/d/161V_FaYR2BnNGCSFUlWPjUSIQzcH04Hq/view?usp=share_link)” for updated information on sample comments, rubrics, and key definitions related to developmental readings.

**Source One:**

Graeme, B., & Coppock, A. (2023). *Research design in the social sciences* (p. 1). Princeton University Press. <https://ereader.perlego.com/1/book/3814888/1>

**Comment 1:**

**Quote/Paraphrase:**

“An important example is the performance of a research design under a null

model, where the true eﬀect size is zero. A good research design should report with a high probability that there is insuﬃcient evidence to reject a null eﬀect. That same research design, under an alternative model with a large eﬀect size, should with a high probability return evidence rejecting the null hypothesis of zero eﬀect. The example makes clear that to understand whether the research design is strong, we need to understand how it performs under diﬀerent models.” (p. 51)

**Essential Element: This** material relates to the essential element of hypothesis formulation.

**Additive/Variant Analysis:** This material is additive to my understanding of formulating hypotheses. As the author points out there are two sides of the coin to research design.

**Contextualization:** This material is useful as it stresses that the utilization of a null hypothesis where the factor, the independent variable, being examined is not being examined for how much effect but for any effect. The null hypothesis states that there is zero effect. Interestingly, the author argues that having a good research design should also take into account that a significant effect is present and thus not only correctly identify the absence of an effect but also the presence of the effect. So, a good research design will both detect true effects when they exist and register when no effect is present, eliminating false positives or failing to detect a real effect.

**Comment 2:**

**Quote/Paraphrase**

The author provide the example of studying what percentage of a population is left-handed to illustrate that the null hypothesis model will not work in all cases. To create a research design that zero percent of people in a population are left-handed would be “preposterous.” The author suggests a descriptive study using a sample and various statistical measures to evaluate that sample for confidence (p. 131)

**Essential Element: This** material relates to the essential element hypothesis formulation.

**Additive/Variant Analysis: This** material is additive to my understanding of hypothesis formulation. The null hypothesis design can test for the presence of a particular effect or characteristic, but not all research tests if the dependent variable changes if the independent variable changes.

**Contextualization:** In the hypothetical scenario that I have been working with regarding GenZ young adults who exhibit failure to launch, it could be important in the research design to discover how prevalent the problem is within the population I am working with. So if I were to design a study about a possible intervention to assist parents with these young adults with the goal of accessing its value for congregations in my district, it might be true using a null hypothesis that the intervention generates an effect, but without the descriptive research it might be possible to miss that the problem is not that present in our congregations and would it would not be a good use of time and resources to address.

**Comment 3:**

**Quote/Paraphrase**

Measurement error is described in terms of validity and reliability. Validity refers to the difference between the observed and true outcome, while reliability refers to the consistency of repeated measurements, measured by low variance. Ideally, measurements should be both valid and reliable, but when a perfect measure is unavailable, researchers must balance trade-offs between validity and reliability. (p. 85) Measurement studies help assess the reliability and validity of methods by comparing proposed measurements to “ground truth." However, even these "ground truths" are measured using costly or impractical methods, which are not necessarily perfect. Therefore, validation studies are comparisons between different techniques, each with pros and cons, ultimately relying on trust in the assumed "ground truths." (p. 85)

**Essential Element: This** material relates to the essential element valid instruments.

**Additive/Variant Analysis: This** material is additive to my understanding of instrument validation. I had previously been aware of existing instruments that are often used to collect data from sample groups for particular issue that have a track record on that issue, but previously I had not thought of how important validity and reliability would be in creating my own instrument to study a particular issue.

**Contextualization: In** the hypothetical project of exploring GenZ young adults who failure to launch, I had been assuming I would be creating my own surveys or interviews to collect data. I have often done this in the past when advising congregations as many available instruments within the ministry field are expensive to use and often more expansive than necessary nor exactly targeting the congregational dynamics I am trying to research. I anticipate that something similar may be the case when I actually arrive at a research design for my dissertation. But I can see where reliability and validity are going to be essential regarding the instruments I utilize to sustain research conclusions. Thus, I will have to be on the look out for validated and reliable instruments that have a track record that may be useful for research of my population or if I design my own survey I will have to include a process for demonstrating the reliability and validity of that survey. Thus, I can see the value of using pre-existing instruments to save time and resources if they are available, but will have to make sure they are aligned with my research problem in such a way that accurate data is collected that will make a strong rather than a weak research design.

**Source Two:**

Cheek, J., & Oby, E. (2023). *Research design* SAGE Publications.

**Comment 4:**

**Quote/Paraphrase**

The author approaches literature review as engaging in an ongoing “conversation” with the research community examining a particular area. In this conversation, the researcher is not just learning about what is known to help inform where he or she might add to the conversation but is finding material to “…justify how he uses what came before in his research design and to justify what he might exclude.” (Cheek and Oby, 2023, p. 5) The author emphasizes that literature included needs to be relevant and empirical with important implications for the particular study rather than just a survey of the related field. (p. 5) The authors suggest breaking the review down first to peer reviewed journal articles, what they term the gold standard, and then book from “reputable” publishing houses as being of good quality. Other materials that have not had a formal process of review may be useful if the information is relevant and one can ascertain it is trustworthy. (p. 9-12)

**Essential Element: This** material is related to the essential element literature review structure.

**Additive/Variant Analysis: This** material is additive to my understanding of the literature review, why it is important, and what sorts of material should be sought for.

**Contextualization: This** is useful guidance in the area of literature review especially given the prolific availability of sources in this digital age. The internet provides ready access to much information on pretty much any topic, and this stresses the importance of the trustworthiness of the material. As the researcher builds a body of literature to learn about his or her area of interest, it is important to keep in the back of one’s mind the question of how trustworthy is the so-called expert and the information the individual or group is providing. How do we know the information is accurate? Additionally, this guidance helps to make the review more manageable with the abundance of information both from the lens of trustworthiness, but also applicability to the study. The study deals with a specific issue with specific research questions and thus is different from a generalized course teaching the area. So, keeping in mind my existing hypothetical study of GenZ young adults who fail to launch, the literature review should only include information on GenZ that would inform the particular problem of failure to launch. I would not need to include all the characteristics often exhibited by this group if they do not directly pertain. Additionally, the sources for this information must be reputable.

**Comment 5:**

**Quote/Paraphrase**

The authors point out the literature review not only impacts the development of a research design but facilitates the formulation of a specific research topic, as one’s research should add to “the conversation.” “From engaging the preexisting literature we shape our research design including an informed understanding of ethical considerations, learning what to consider when developing research questions, what type of data to collect and what data collection methods to employ, how our research will add to understanding, potentially design a research project that will itself shape the conversation not just about the issue but about how to study the issue.” (p. 8)

**Essential Element: This** material relates to the essential elements literature review structure as well as design differentiation.

**Additive/Variant Analysis: This** material is additive to my understanding of these research elements. I had previously been aware of how important the literature review was for looking for gaps in understanding to suggest areas for exploration and adding to the “conversation.” But the idea that part of this addition might also include new insights into methods for examining the problem is a new insight for me.

**Contextualization:** Once again, looking at the hypothetical issue of GenZ young adults who fail to launch, my primary focus has been on understanding the factors that are slowing down or causing resistance of young adult to become self-sufficient, and creating a possible intervention that could be applied by parents and pastors. Before now I had not given much consideration to how my research design could itself be a tool for addressing this problem and potentially other problems unique to GenZ individuals, that the design itself could be an important addition to the conversation.

**Comment 6:**

**Quote/Paraphrase**

Qualitative data analysis is a simultaneous and iterative process, involving continuous refinement of interpretations rather than a fixed procedure. It requires deep immersion in the data, where researchers constantly compare and refine their interpretations based on collected data, research questions, and existing theoretical work. This iterative and reflexive process helps researchers develop models, diagrams, and conceptual relationships, linking findings to literature and identifying patterns in the data. A central part of this analysis is coding, which involves identifying, labeling, and organizing data to represent meaningful phenomena. Coding requires analytical skills such as classification, synthesis, and theory building to group related codes into categories that capture underlying concepts. The development of categories evolves alongside data collection, requiring constant revision in response to emerging patterns. Categories are not just clusters of codes but represent thematic ideas that go beyond superficial descriptions, ultimately leading to deeper insights and findings. (pp. 151-153, 162)

**Essential Element:** This material does not specifically relate to one of the four provided essential elements but rather applies to one of the questions listed for assignment 3, that is thematic analysis in qualitative research.

**Additive/Variant Analysis:** This material is additive to my understanding of interpreting qualitative research. While my theological and philosophical career has been strongly involved dealing with qualitative produced materials, I have not spent a great deal of time exploring the methodologies of qualitative research nor interpreting the data that such research generates.

**Contextualization:** As a person who is naturally inclined toward order and organization, this material makes me more interested in a qualitative study in that it provides a structure that enhances the validity of interpreting such data. I use this kind of information regularly in my work as a pastor and congregational consultant. When entering a new congregation to provide mentoring and guidance I normally used mixed methods, both various surveys to capture congregational dynamics at play and effectiveness of congregational processes as well as employing interviews to elaborate on what the surveys indicate as well as to notice what the surveys might miss. I have in the past naturally utilized some degree of “coding” without exactly realizing I was doing this. This material helps me to understand that this linking of information into categories is an “active process” and should be a conscious not an unconscious one, something well thought out. It helps to take an interpretive process that is like an art and will remain an art but giving it a scientific basis. Particularly helpful in the material is the author pointing out that as I engage the material, I should be asking questions about how does this information relate to what I am exploring. What are the commonalities including the common assumptions that are coming to the surface? Am I condensing and linking ideas together that the participants are not linking together? Am I separating ideas that the participants would find similar? Also useful is the guidance on how to move from specifics to linked concepts, moving to the ideas behind the codes to help major themes to emerge.

For instance, this morning I spent a great deal of time trying to arrange a biopsy for my dog. Given she may have serious cancer, I elected to drive the hour to the office to talk to the desk. None the less I wound up waiting some time before the desk was able to consult with the veterinarian to find a time that was sooner rather than later. This had me thinking about the experience and the anxiety around waiting and how I might learn what people think about that. So, I can imagine interviewing various people in a waiting room if I was interested in learning how other people are experiencing getting care for their pets. I can imagine that I might hear others with frustration about wait times but also appreciation for staff who are seeking to help. But there is also the issue of many pets needing specialty care and for me and others like me having to drive an hour or longer to find an office and there is lots of need and fewer providers than in the human health care sector. So, I can image coding “waiting frustration,” “positive staff interaction,” “negative staff interaction”, and “limited veterinary providers”. This might lead me to consider themes such as client experience dealing with how a friendly staff might mitigate waiting frustration or systemic issues such as the number of sick pets vs. availability of providers. This could lead to looking at the issue from a lens that not only seeks to assist the clients seeking care for their vets but perhaps the providers who are experiencing their own stress.

**Source Three:**

Frey, B. B. (2022). *The SAGE encyclopedia of research design* (2nd ed.,). SAGE Publications, Inc.

**Comment 7:**

**Quote/Paraphrase**

Null hypothesis significance testing (NHST) is a widely used method in sciences such as ecology, medicine, and psychology to interpret experimental data. It involves formulating two mutually exclusive hypotheses: the null hypothesis (H₀), which states that the independent variable has no effect on the dependent variable, and the alternative hypothesis (H₁), which suggests that an effect exists. There is only one way for H₀ to be true (equal means, indicating no statistical difference), whereas H₁ can be true in infinitely many ways. The key to rejecting H₀ lies in the variability of means—if they differ sufficiently, H₀ is rejected. However, if the means do not significantly differ, researchers do not "accept" H₀ but instead "fail to reject" it, as small differences might still exist but go undetected. Interactions between independent variables occur when the effect of one variable depends on the level of another. NHST tests for both main effects and interactions. A common issue in scientific reporting is misinterpreting a failure to reject H₀ as proof that H₀ is true, leading to confusion. To improve accuracy, confidence intervals (often 95%) are used to estimate the precision of the mean differences. (pp. 1100-1102)

**Essential Element: This** material is related to the essential element hypothesis formulation.

**Additive/Variant Analysis: This** material is additive to my understanding of the use of a null hypothesis as it clarifies specifically how it operates with its dependence on the value of the means.

**Contextualization: Once** again using the hypothetical study of GenZ young adults who fail to launch, if I were to want to test the effectiveness of a potential intervention, I would want to consider what behavior I hope to see changing. Let us pick employment. We hope that the intervention might equip young adults to be more confident and effective in seeking employment. So, I might for example hypothesize that the intervention would not increase the number of job applications submitted. the participants (the null hypothesis). The material above is helpful as I consider this in stressing that the evaluation is between the means of the test groups, here potentially a before and after test of the same individuals. In the real world it would be unlikely that for any behavior of before and after that the mean would be “exactly” the same. This also informs material from the statistics class regarding various statistical tests to determine if the difference in the mean is statistically significant enough to warrant rejecting the null hypothesis. Here the author references the 95% confidence interval. So the hypothesis would need to be constructed in such a way that the data informed would truly reflect if the mean difference between the before and after is actually due to the intervention and not to an extraneous variable having influence over a passage of time or simply due to the passage of time. So perhaps the number of applications might not be as helpful as a survey question asking the participant if they felt more empowered to put in an application as well as if they did put in an application after the study compared to if they put in applications before the study.

**Source Four:**

Baldassarre, B., Calabretta, G., Karpen, I. O., Bocken, N., & Hultink, E. J. (2024). Responsible design thinking for sustainable development: Critical literature review, new conceptual framework, and research agenda. *Journal of Business Ethics: JBE*, *195*(1), 25–46. <https://doi.org/10.1007/s10551-023-05600-z>

**Comment 8:**

**Quote/Paraphrase**

The study addresses research specifically related to business innovation arguing that the research is so focused on economic growth that questions related to economic or social impact have been neglected. (Baldassarre et al., 2024, p. 25) “To this end, the method does not focus on “gap-spotting” or “filling a gap,” “in order to extend a literature” while leaving its underlying assumptions unchallenged, but rather on looking critically at these assumptions to construct new theories (Alvesson & Sandberg, 2011, p. 247–248).” (p. 27) “Problematization is based on six steps: (1) identifying the literature stream and its key texts; (2) uncovering the current assumption(s) in the literature stream; (3) evaluating the current assumption; (4) proposing an alternative assumption; (5) relating the alternative assumption to its audience; and (6) reflecting upon the alternative assumption to guide future research.” (p. 28)

**Essential Element: This** material is related to literature review structure.

**Additive/Variant Analysis: This** material is additive to my understanding of literature review. It offers an alternative to “gap-spotting” as a method for reviewing literature. It is also variant from my understanding of this process, as the process advocated by the authors could be corrupted by a researcher’s inherent bias.

**Contextualization:**

First let us consider the thesis that research can be so agenda driven that it neglects important other aspects of the issue and the suggestion of applying critical methodology in literature review to discover an area where something important and new can be added. On the one hand there is much to be said for this observation. My forum paper focused on something I call empathic bias follows a similar line in that I argue that researchers’ empathy toward a particular population can highly influence the objective study of that population. Here the author is pointing out the desire for improvement of our material lives and generation of revenue drive research into business innovation. One could suppose that a similar critical lens toward the accumulated body of research might uncover the underlying goals of the research community as well as help to identify issues not discussed. But on the other hand, a critical approach brings its own set of assumptions and biases with it and topics such as climate change or injustice are not objective neutral concepts as they are approached through contemporary critical theory. If, however, the critical lens is based on some objective standard the approach could be useful for a Christian researcher. For instance, one might address the results that the legalization of homosexual marriage has had upon society. Understanding that God’s design for marriage is between a man and a woman, a Christian researcher might survey the literature objectively identify how particular assumptions and values have shaped previous research and look at areas where questions could be explored such as in the adoption of children to homosexual parents and if this has led to a statistical difference in how these children look at orthodox Christianity.

Turning to the methodology employed, the six steps the author presents could be quite valuable. Steps 3, evaluating assumptions and step 4, proposing alternatives would be heavily informed by the researcher’s personal values and preferences. Here we see the role “theory” plays, or worldview, of any host of words than could be used to describe the meaning structure the particular researcher utilizes to make sense of the world and the specific phenomena being examined. It is vital that the Christian researcher does not lose his Christian worldview amidst the forest of human created meaning networks that will by necessity reflect the limitations of human knowledge as well as the sinful corruption of human reason.

**Source Five:**

Jackson, J. (2024). Fold in the cheese? An approach to teaching qualitative data analysis to students. *The Qualitative Report*, *29*(3), 862–866. <https://doi.org/10.46743/2160-3715/2024.6274>

**Comment 9:**

**Quote/Paraphrase** The author presents a teaching exercise based on passing out handfuls of random buttons to students and asking them to sort them. Then the students are asked about what characteristic they chose to highlight. The author uses this to teach the role of descriptive statistics in sorting randomized data gained in qualitative research. Then the teacher asks them to sort the buttons based on different categories. For instance, a descriptive category could be used such as color, or a thematic one such as how easy it would be to button. Or they could be sorted by the supposed gender of the anticipated wearer. Finally, the author has his students sort them based on a theory, such as Maslov’s hierarchy of needs deciding if a button would be an essential garment such as a coat for warmth or a decorative button on a fancy dress. Then the author moves the students to looking for themes such as potential cultural associations related to the button, or what experience might one have wearing a garment with the button or even process, sorting the buttons in the order they would likely be buttoned. (Jackson, 2024, pp. 862-865)

**Essential Element: This** material is not related to one of the specific four listed essential elements but applies to thematic analysis in qualitative research which is addressed in assignment 3 of the course.

**Additive/Variant Analysis: This** material is additive to my understanding of interpreting qualitative data for the construction of coding and development of themes. While simplistic exercise, it helps to develop the initial skills for this process.

**Contextualization:** The first aspect that comes to mind when reviewing this teaching exercise is the subjective nature of the interpretation and how as the author says, this analysis can be “nebulous.” The same researcher, or in this case button sorter, might produce a different sort than another sorter. This instructs the researcher that when he or she first begins to code or sort his or her data, it would be good practice to ask why did he or she chose to start with these categories? Are the categories informed by the source material or by the preferences? For instance, here, if a sorter has a creative personality type, he or she might be inclined to focus on color, even prefer a particular color type. Whereas if a different sorter has a personality type inclined toward order and discipline, he or she might be more inclined toward sorting by size or function. An engineering student might be inclined to sort by material. A graphics design artist on the simplicity or complexity of the button’s design. This helps us recognize that the answers the researcher is seeking will likely influence the coding.

Which brings us to the next steps, the author’s-imposed structure for the students to sort by including ending up with the application of a theory. Here we can find that the utilization of a theory or a standard set of codes could be helpful to avoid individual bias, if such theory or codes are not in themselves biased toward a particular outcome (as referenced in the entry above). I find rather helpful for this initial exploration and learning of this process the central approaches the author uses here: 1. General (use, characteristic), 2. Descriptive (attributes of the data), 3. Thematic (behavioral patterns), 4. Conceptual lens (critical-theory), 5. Theoretical lens (Maslow’s hierarchy), 6. Cultural focus, 7. Experience focus, and 8. Process focus.

For instance, considering my hypothetical project of exploring GenZ young adults who have failed to launch, after conducting a series of interview of young adults I might begin with descriptive/thematic sorting hearing these folks talk about their fear of failure, or concern about parental judgment, or skepticism of the world around them which could be expanded into themes such as anxiety and dependency. Application of a theoretical lens such as Maslow’s hierarchy could add an additional level of understanding based on an accepted understanding of human behavior asking how escalating human needs such physiological, safety or love and belonging are informing their reluctance to launch.

**Source Six:**

Littman, L., O’Malley, S., Kerschner, H., & Bailey, J. M. (2024). Detransition and desistance among previously trans-identified young adults. *Archives of Sexual Behavior*, *53*(1), 57–76. <https://doi.org/10.1007/s10508-023-02716-1>

**Comment 10:**

**Quote/Paraphrase**

“The study was initially launched as an anonymous online survey that included screening questions that ended the survey if participants provided answers that were inconsistent with eligibility. Shortly after recruitment began, individuals began posting tweets to invite other people to take the survey with the goal of creating invalid results. This was followed by multiple tweets of individuals boasting that they submitted fake responses to the survey.” (Littman et al., 2024, p. 60) “In response to… “the sabotage attempts, the study was modified to increase the security by adding a videoconference screening interview and the use of personalized one-time-use links to the survey. The current study includes only participants who completed videoconference screening interviews.” (p. 61)

**Essential Element: This** material relates to the essential element valid instruments.

**Additive/Variant Analysis: This** material is additive to my understanding of valid instruments.

**Contextualization:** This material introduces an additional layer to the consideration of validity in the use of instruments. Here we have what we will assume is a valid instrument being applied in a way that should generate a random sample. However, due to the strong emotional response that people are having to the survey people with a particular inclination toward the topic were encouraged by others who were not necessarily in the population group of detransitioners to engage the survey with the purpose of creating false results. This leads us to realize the researcher has to be aware especially with controversial research topics that are influenced by strong opinions and bias, of potential sabotage from the participants. This leads one to consider if such sabotage could take other forms, such as someone in a particular population being studied not being allowed to admit to the presence of negative indicators of a particular preferred behavior and so not answering the study questions honestly. In this specific case the addition of a video conference would eliminate the ability of one individual to submit multiple entries, but it would not necessarily inform if they answered truthfully. Though in this case the interview was part of the screening process to identify those who had detransitioned thus establishing representatives from the population group the researcher wished to examine. The point being that in considering what instruments to employ so the study is valid and reliable that the issue relates not only to the track record of the instrument but how the sample group responds to the instrument.

**Source Seven:**

Benoni, F. T., & Novoa, R. D. (2023). Enhancing business innovation: A review of the impact of design methods. *Journal of Technology Management & Innovation*, *18*(4), 104–123. <https://doi.org/10.4067/S0718-27242023000400104>

**Comment 11:**

**Quote/Paraphrase**

Another study on business innovation with this one applying a particular method (Tranfield) for research review focusing on three phases: planning, review, and reporting. The study provides the phrases used to search through the specific databases they examined. The authors employed a four-step process to generate their body of literature. “The search will be limited to articles published in english between 2010 and 2023, and it will involve four stages: applying research strings (first), followed by exclusion criteria (second), reading abstracts and titles (third) to exclude off-topic work, and finally a thorough review of the complete text (fourth), extracting valuable information for subsequent analysis, and disseminating the findings.” (Benoni and Novoa, 2023, p. 109) Their inclusion/exclusion criteria included peer-review, if the literature offered different perspectives, if the article dealt only with branding or aesthetics or if they were duplicated materials from different sources. (p. 109)

**Essential Element: This** material applies to the essential element literature review structure.

**Additive/Variant Analysis: This** material is additive to my understanding of literature review structure. I had not previously considered a formalized approach to excluding literature generated by utilizing search strings.

**Contextualization: These** three steps applied to the body of literature before diving into the fourth step of actual examination of content is useful in two ways. First it will help generate a comprehensive body of literature that is relevant to the topic of a study while secondly keeping the size of that review workable. For instance, in this study the author’s search strings using three data bases resulted in 485 hits from the first, 12,700 from the second and 1,333 from the third but by applying specified exclusion/inclusion criteria, the results narrowed to 15, 168, and 22, respectively. Applying these criteria before looking at abstracts or the information inside the materials provides a quicker and more objectively reliable method for filtering a large body of material into a smaller yet still exhaustive and relevant body of material. The authors then moved to examining abstracts to see if the materials directly spoke to the topic at hand, further reducing the total number of sources to 30.

It is apparent that the application of inclusion and exclusion criteria to the literature should itself be informed by some degree of research, that is justifiable beyond the researcher’s application of subjective preference, but justified based on an understanding of the area and based on alignment with the research problem and questions.

**Source Eight:**

Mateus, C., Jabba, D., Erazo, A. M., Aguaded, I., Campis, R., & Parody, A. (2024). Otherness measuring scale: Design and validation for social sciences. *BMC Psychology*, *12*, 1–13. <https://doi.org/10.1186/s40359-023-01505-8>

**Comment 12:**

**Quote/Paraphrase**

Abstract: “This paper is the result of a scale validation process, applicable to social science research, which allows the constructs of otherness and coexistence and their relationship to be transformed into measurable, systematized variables. In turn, this scale is the product of a research project whose main objectives were (i) to demonstrate the relationship between coexistence as an independent variable and otherness as a dependent variable, and (ii) to create and statistically validate a scale to measure both variables, so to use it in applied research. The sample consisted of 600 participants. Three instruments were used: two semantic differentials and a 33-item questionnaire. The application was carried out virtually due to the SARS-CoV-2 virus. The method includes a mixed type of work, i.e., qualitative, and quantitative procedures. The results showed two factors, the other as strange or foreign and the other as equal. The final scale consisted of 10 items, with a Cronbach’s alpha of 0.86 and variance explaining 58% of the otherness.” (Mateus et al., 2024, p. 1)

This article concerns the creation of a measuring instrument to provide a valid and reliable survey instrument for understanding for “otherness and coexistence” might be measured as variables in a systemic way. (Mateus et al., 2024, p. 1) They first pulled ideas from literature review on otherness.  (p. 4) The questionnaire they utilized informed from the literature review (p.7) was validated by using three judges to evaluate the questions as below in table 1:  Judges were 3 subject matter experts with a Ph. D in psychology who were recognized in their field by others as experts. (p.5) The survey was considered by these experts in four areas in a range including sufficiency (the survey question was sufficient to measure the category, partially sufficient, not sufficient), clarity (clear, needs modification, unclear), coherence, (completed related to the characteristic, moderately related, no logical relationship) and relevance. (items are related, somewhat related, not related). (p.5)

**Essential Element: This** material is related to the essential element valid instruments.

**Additive/Variant Analysis: The** material is additive to my understanding of valid instruments.

**Contextualization: This** article not only provides an interesting instrument that may be useful in my research on GenZ and the church’s effective outreach to this generation but provides insight into various processes that go into validating a potential instrument. The review process employed by these three psychologists does seem to be extensive, though the employment of three psychologists could have been enhanced by employing subject matter experts from alternative fields such as anthropology and sociology. The study illustrates the care that one would have to employ in establishing the validity and reliability of a researcher-created instrument should one be designed and employed. The article is useful as well in introducing the existence of various statistical methods and instruments (such as Conbach’s Alpha) introducing an additional area for me to investigate and become familiar with. The authors indicate the importance of applying such statistical methods to validate their findings. “The results show that traditionally four ways of interpreting the relationship with the Other have been defined, i.e., as stranger or foreigner, object, equal or otherness. However, the statistical analysis of the present work enabled the delimitation of only two dimensions for the variable otherness: (stranger or foreigner / equal).” (p. 11) Here the four logical categories that one would reasonably consider to be descriptive are reduced to two due to statistical instruments validating the instrument as being able to capture. However, their study does validate the survey instrument’s ability to capture and reflect a population’s view of other people as strange or equal. (p.1, 11)

**Works Cited**

Baldassarre, B., Calabretta, G., Karpen, I. O., Bocken, N., & Hultink, E. J. (2024). Responsible design thinking for sustainable development: Critical literature review, new conceptual framework, and research agenda. *Journal of Business Ethics: JBE*, *195*(1), 25–46. <https://doi.org/10.1007/s10551-023-05600-z>

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