

## **Validation**

Qualitative research has been criticized for its rigor and strength of validity and reliability of the data and conclusions. It is important to consider reliability and validity in creating your research design (Middleton, 2019) because it increases transparency and decreases opportunities to insert researcher bias in qualitative research (Singh, 2015).

Reliability and validity are concepts used to evaluate the quality of research (Middleton, 2019). However, they differ from each other, reliability refers to how consistently a method measures something, it concerns the faith that one can have in the data obtained from the use of an instrument, that is, the degree to which any measuring tool controls for random error (Haradhan, 2017). It measures consistency, precision, repeatability, and trustworthiness of a research (Chakrabarty, 2015).

On the other hand, validity refers to how accurately the method of research measures (Middleton, 2019). It is concerned with what an instrument measures, and how well it does so, thus, it is dependent on the transparency with which the data collection and analysis procedures are presented (Haradhan, 2017).

In addition to that, qualitative research focuses on understanding the phenomenon under investigation and in doing so the analysis aims at ensuring that the research findings capture what the participants say or what is happening. Validity in this regard is measured by the extent to which the analysis reflects what was said by the participants. This understanding of validity is in keeping with the theoretical framework for this study (social and cognitive constructivism), which does not aim to seek an ultimate truth but rather focuses on identifying the constructions by the participants concerning the discourse under investigation.

To increase the internal trustworthiness (Validity and Reliability) of the study, the researchers followed the four aspects of trustworthiness of qualitative research namely Credibility, Transferability, Dependability and Conformability.

First, to establish the credibility of the study, the researchers used triangulation method and member checks. Triangulation ask the same research questions of different study participants through different methods to answer the same questions. Additionally, triangulation increases the credibility of the researcher (Stake, 2015) and “determines the consistency of a finding” (Yin, 2015, p. 241). The researchers used Interview, Observation and Questionnaire as their source of data. Member checks occur when the researchers let the subjects review the data collected from the interview and the interpretations of the researchers. Participants were allowed to verify their answers and fill in the gaps of data collected from the earlier interview.

Next, the researchers used purposive sampling, a non-probability sampling, to maximize the specific data relative to the context in which it was collected, therefore, allowing the transferability of the data. Transferability generalizes the study findings and allows it to be applied in other situations and context.

The researchers also aimed to establish dependability through trails of data analysis, hence, avoiding potential bias or personal motive of the researchers through conclusion making and analysis of the data making it more reliable.

Lastly, the researchers also assured that the study is repeatable and conformable and other researchers that might attempt to replicate the study will have the similar findings. Aside from that, the researchers also allowed other personnel to examine and review the study to ensure that the findings are consistent. Moreover, the researchers also stated all the information needed for future references.