



LIKERT SCALE –THE POTENTIAL PITFALLS EVERY NOVICE RESEARCHER NEED TO KNOW

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ABSTRACT Despite being the popular instrument for educational researches in the field of science, the appropriate usage of Likert scale often generates points of controversy. In this article, we intend to analyse the potential pitfalls which every novice researcher should be aware of, while using Likert scales. We have elaborated on the methodological issues stemming from the side of researcher, while designing the study and epistemological issues which pop up when the student intends to answer the items of the Likert scale, particularly in developing countries. Leaving behind the statistical dogmatism associated with it, we intend to focus upon the operational difficulties associated with administering Likert scale. With the widespread usage of this scale in various research domains, we would like to share the lessons we had learned in due course. Also, we recommend that attempts should be made to make respondents internalise the ideology behind the questionnaire, so that they would reflect the intensity of their attitude / perception in a better way.

KEYWORDS : Likert scale, quantitative, psychometric, questionnaire

Likert scale is the most widely used tool used to document the effectiveness of various educational programs and quantify medical educational research projects. A series of verbal statements expressing a range of positive / negative expressions about the underlying construct is given and the responses to the statements are transformed into meaningful "units of analysis" that helps in answering 'research questions' or testing hypotheses. To achieve the desired result, academicians and researchers should clearly distinguish between a scale and a response format, which is not always easy to do (Jamieson S, 2004).

Cohen et al. (Cohen et al., 2000) contend that it is often illegitimate to infer the intensity of feeling between "strongly disagree" and "disagree" and other consecutive categories as well. We could enunciate from our experience that, when students are provided with a five point Likert scale, they would avoid the 'extremes' and opt for "sitting in the fence". Weems and Onwuegbuzie (Weems et al., 2001) conducted three studies and found that there was a high rate of midpoint choices among their samples, which even though increases the reliability, could also possibly attenuate the validity of the tool. At times, some respondents get tired of answering battery of questions, simply tick the same box for every item, perhaps without considering carefully enough the meaning of each one. However, we recommend that educational researches should have midpoint options, provided that the researcher is concrete on 'why' he / she keeps it and the respondent is clear of 'why' he / she opts for it (epistemology).

Secondly, novice researchers, who had just dipped their toes into the waters of research involving Likert scales, often face difficulties in choosing the appropriate statistical technique. Choosing inappropriate descriptive and inferential statistics, at the study-design stage, might land them up in attaining wrong conclusion about his / her hypothesis (Blaikie N, 2003).

Thirdly, the difficulties or preparatory works involved in validating a self-created scales (assessing the reliability and validity of individual items), repels the investigators to use or adapt the scales which have been developed and validated by previous researchers. In such situations, we could notice that respondents belonging to different populations might have some inherent difficulties. Flaskerud (Flaskerud JH, 1998) suggested that the Likert scale format might be culturally biased because her samples had difficulty in understanding the ordered continuum of responses characterizing the Likert format and had preferred a dichotomous response. This is a potential pitfall when translated formats are used and when the respondents are not able to scrutinize the internal conflicts of the options, which use word anchors such as often and seldom. Also, analysing the responses to Likert scale questions item by item and pressure of dichotomizing the responses to achieve the 'desirable' outcome makes the interpretation, a

messy process.

In spite of the debate revolving around it for more than 50 years, Likert scale still remains as the unsurpassed tool in various fields owing to the fact that it is easily administrable and helps the researchers to collect the information in a standardized manner (Rattray J, 2007). In this letter, we like to document few challenges which we had encountered while administering Likert scale for educational researches. This would be of benefit to researchers who unwittingly misunderstand the nature and characteristics of Likert scale and do not plan his / her appropriate statistical analyses at the time of designing a study. On the other hand, we need to train the students in answering Likert scales, which aims at documenting that the strength/intensity of experience or attitude in a linear continuum (Carlifo et al., 2008). If students fail to recognize the differential word anchors used in the responses, then the purpose of using Likert scale gets diluted. We recommend that it would be beneficial if students are made to think holistically about the questionnaire process and discern its overall purpose before answering it.

We would like to conclude that these potential pitfalls could be destructive when the researcher uses Likert scales to gather information, and would turn useless when they attempt to tap attitudes / perceptions without a clear theoretical expectation of their scalability. We would also recommend usage of questions which elicit qualitative response, which helps the researcher to avoid the fear of "coming to a wrong conclusion" or when the statistical power is reduced enormously in unavoidable circumstances.

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