ABSTRACT

The objective of the study was to use the item response theory to improve the quality of survey items used in research on the human fingerprint of climate change in the Beitbridge district, Zimbabwe. Data were collected using questionnaires to 365 randomly selected participants and analysed using the 1; 2- and 3-parameter models. The 1-parameter model showed that concerning item difficulty level, all the survey items on knowledge of human fingerprint on climate change are in the "good" category. Meanwhile, results of the 2-parameter model show that in terms of item discrimination, all the tests were fairly "good", with a relatively flat slope. The 3-parameter model shows that all the survey items were in the "good" class with a guessing factor of 0% as well as improved discrimination values on most of the items. Therefore, item response theory is an appropriate approach to improve survey-based research methodology and outputs..