

Self-Report Questionnaires:
Can They Collect Accurate Information?

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Korb, K. A. (2011). Self-report questionnaires: Can they collect accurate information?
Journal of Educational Foundations, 1, 5-12.

Abstract

Many researchers argue that participants do not respond truthfully on self-report questionnaires. The purpose of this paper is to critically examine whether self-report questionnaires can be valid by answering two questions. The first question, “Are Nigerians dishonest on self-report questionnaires” was answered using empirical data that showed that most Nigerians are honest even on topics that are highly controversial. The second question, “Can self-report questionnaires be valid for some psychological variables, or is there a more valid method of measurement” was answered using theory of test and measurement. The paper concluded that self-report questionnaires can collect accurate information, and suggests four strategies for obtaining truthful responses on self-report questionnaires.

Introduction

Self-report questionnaires ask participants to answer direct questions about themselves and are extensively used to measure beliefs, attitudes, feelings, and opinions (Singleton & Straights, 2010). However, suggesting that a self-report instrument should be used in an empirical research study is often met with skepticism. One hears responses like, “But people will not be honest if they report about themselves” or “The participants will try to make themselves look good.” Are these fears about the accuracy of self-report questionnaires reasonable?

The accuracy of self-report data can be examined by considering two questions. The first is a practical question: “Are Nigerians dishonest on self-report questionnaires?” The second is a theoretical question: “Can self-report questionnaires be valid for some psychological variables, or is there a more valid method of measurement?” This paper will try to answer these questions and then suggest strategies for obtaining accurate information using self-report questionnaires.

Honesty and Self-Report

The problem of participants not reporting their true feelings on a questionnaire has frequently been discussed in social science literature. The tendency to respond in such a way that one is presented in a favorable light has been termed the *social desirability effect* (Cohen & Swerdlik, 1999). Therefore, the first question of, “Are Nigerians dishonest on self-report questionnaires” relates to the degree to which Nigerians engage in socially desirable responding.

The best way to answer this question is through an extreme case of an attitude or a behavior in which individuals would be highly likely to respond dishonestly in order to portray themselves in a favorable light. One of the most inappropriate behaviors for a student is academic malpractice. If a student were to be dishonest about any topic, it is highly likely that they would be dishonest in reporting their previous engagement in academic malpractice. Therefore, to answer the first question, we can examine the percent of students who report that they have engaged in academic malpractice. If students were to engage in socially desirable responding, then very few students should report that they have engaged in academic malpractice. However, if many students admit to engaging in academic

malpractice, then we can conclude that socially desirable responding is not as widespread as many researchers believe.

To determine how many students admit to academic malpractice, a questionnaire was distributed to 197 university students in the 200-level in the Faculty of Education, asking them to report on their “study behaviors” (Korb, in press). All of the 20 study behaviors on the self-report questionnaire were various types of academic malpractices, ranging from “Copy your continuous assessment answer from another student” to “Pay the lecturer to give you a higher grade.” Participants were to circle either yes or no for each behavior to indicate whether they have personally engaged in the malpractice within the past three years.

If students are going to be dishonest on a self-report questionnaire to make themselves look good, how many students would circle yes to any of the academic malpractices? Circling yes would indicate that they have cheated in the past three years, something undesirable. Therefore, we would expect the percentage of students to tick yes to be very low, around 0%. However, 69% of the sampled students ticked yes to at least one malpractice. Therefore, at least 69% of the participants did not engage in socially desirable responding on a self-report questionnaire that measured a highly undesirable behavior – academic malpractice. Simply, a large majority of the students admitted to a behavior that made them look bad, something that is unlikely if they were to lie on a questionnaire to make themselves look good.

A second topic that students in the Faculty of Education might be tempted to be untruthful about is why they chose to become teachers: was education their first choice or was teaching chosen as a last resort career? A self-report questionnaire that assessed participants’ reasons for choosing to become a teacher was distributed to 163 university students in education in their 100-level course. They responded to how important various influences were on their choice of becoming a teacher, such as “I want to help children and adolescents learn” or “I like teaching.” Participants responded on a 7-point scale from not at all to extremely.

The key item of interest on the questionnaire was, “I chose teaching because I was not accepted into my first-choice career.” If participants are going to be dishonest on a self-report questionnaire, then the correct response to this item would be 1, not at all. However, the mean score for the 163 students was considerably different from 1 (mean = 3.76). In other words, the responses were statistically different from the “correct” answer of 1, not at all.

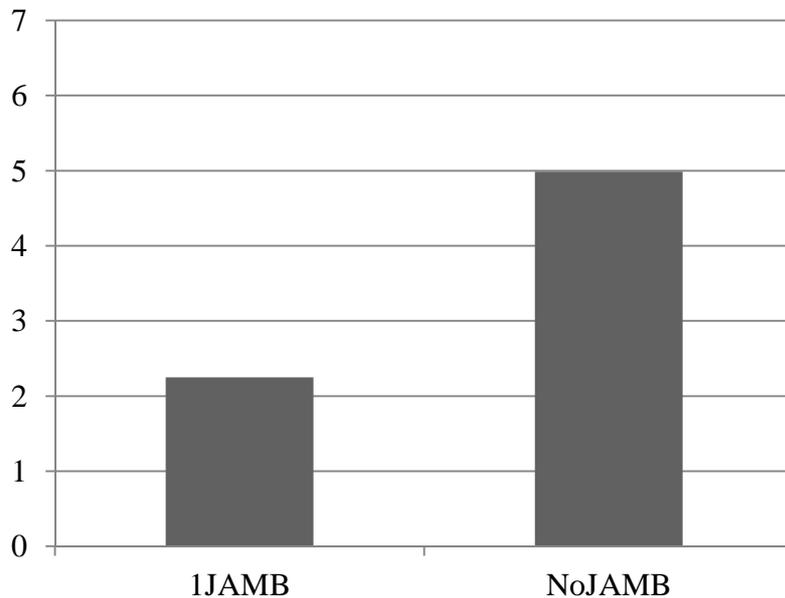
Even more interestingly, participants also reported the courses they requested to study when they registered for the JAMB. Based on what course they requested on the JAMB, the students were divided into two groups: the 1JAMB group listed an education course as their first choice, and the NoJAMB group did not list an education course at all.¹ If participants are dishonest on self-report questionnaires, then there should be no significant difference in the mean scores of the 1JAMB group and the NoJAMB group on the item “I chose teaching because I was not accepted in my first-choice career.”

However, as can be seen from Figure 1, the mean scores of those in the 1JAMB group was significantly lower than those in the NoJAMB group ($t(138) = 7.09, p < .0001$). This means that students who did not register for an education course on the JAMB were honest when

¹ Twenty-two participants were excluded from this analysis because they either did not list their choices when they registered for the JAMB or they listed an education course as their second or lower choice.

they self-reported that they chose to become a teacher because they were not accepted into their first-choice career.

Figure 1. Mean scores on the item “I chose teaching because I was not accepted into my first-choice career.”



Two separate studies have shown that university students have been relatively honest about two undesirable topics: academic malpractice and choosing teaching as a last resort career. The desirable response on these two topics are clear. Therefore, we can conclude that most Nigerians are honest on a self-report questionnaire even if it makes them look bad.

The desirable response on most other types of questionnaires about participants’ beliefs, attitudes, feelings, and opinions is less obvious. For example, an item on a self-report questionnaire of motivation might read, “I study because that’s what others (e.g., parents, friends) expect me to do” (Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009). Students would have less reason to lie on this statement than acknowledging that they have helped another student on an answer during an exam. If students can be honest when self-reporting on academic dishonesty, then it is highly likely that most Nigerian participants will be honest on topics that are less offensive.

Is it possible that some participants may not accurately report their true feelings or behavior when completing a self-report questionnaire? Yes. However, we have demonstrated that socially desirable responding is not as pervasive as some may believe. Since it is still possible that a few participants may be dishonest on a self-report questionnaire, the next step is to examine the philosophy of test and measurement to determine if there is a more accurate way of measuring beliefs, attitudes, feelings, and opinions.

Construct Validity

The second question to be considered when determining whether to use self-report questionnaires is “Can self-report questionnaires be valid for some psychological variables, or is there a more valid method of measurement?” Validity is a technical term in psychological measurement that means the degree to which a questionnaire measures what it is supposed to measure (Cohen & Swerdlik, 1999).

If a researcher argues that self-report data will not be valid because participants will be dishonest to make themselves look good, then there are two alternative form of measurement that are typically used. The first is to measure behavior as a substitute for an attitude, belief, or opinion. The second is to ask others to report on beliefs, attitudes, feelings, and opinions. For example, some may argue that students will not honestly report their attitude toward education so instead they may ask teachers to report on students’ attitude. Therefore, we must thoughtfully consider the validity of these two alternative forms of measurement.

When conducting a research study, the first step in measurement is to develop a construct definition of each variable. A typical definition of attitude is an overall positive or negative evaluation of a person, object, or idea (Maio & Haddock, 2010). Therefore, a construct definition of attitude toward education may be a student’s positive or negative reaction toward education. To have construct validity, a questionnaire of students’ attitude toward education must actually measure a student’s positive or negative reaction toward education. What would be a more valid way to measure this variable: to ask students to self report on their own attitudes or to ask teachers to report on students’ attitudes?

A person’s beliefs, attitudes, feelings, and opinions are unobservable by an outsider, and they are not the same as a person’s behavior. A person’s attitude may not be reflected in their behavior because of many factors in the environment such as social pressures. A student may have a good attitude toward education, but she may not attend class, perhaps because her parents cannot afford to pay school fees, or her peers pressure her into skipping class. Another student may have a bad attitude toward education, but he promptly attends class because he knows that his father will beat him if he is not prompt. Since attitude and behavior are two different psychological constructs, measuring one (behavior) cannot substitute as a measure for the other (attitude). Simply, measuring behavior is not a valid way to measure an attitude.

In order for an instrument to be valid, it also must be reliable. Reliability is a function of error: the more error a questionnaire has, the less reliable it is (Cohen & Swerdlik, 1999). If using a self-report questionnaire, some test scores may have a bit of error for those few participants who are dishonest. However, we have previously provided evidence that fewer participants engage in socially desirable responding than many researchers believe.

Perhaps a researcher decides that there is too much error in self-report questionnaires so instead decides to measure behavior instead of attitudes. For example, a researcher uses students’ attendance at school to measure students’ attitude toward education because students with a good attitude toward school should attend school more. However, as previously highlighted, school attendance is influenced by many more factors than just a student’s attitude toward school. Therefore, school attendance will have even more error as a measure of students’ attitude toward education than asking students to self-report their positive or negative feelings toward education. Because behavior is not the same thing as attitude, there will typically be more error when using behavior to measure attitude than there will be because of socially desirable responding. Since measuring behavior when the

researcher is interested in an attitude leads to more error than a self-report, a self-report questionnaire will be more valid than a measure of behavior.

The second alternative is to ask other people to report on attitudes. For example, a researcher may ask teachers to report on students' attitudes toward education. However, this method of measurement leads to even more error than using behavior to measure attitudes. A teacher cannot see into the mind of a student, so it is impossible for the teacher to directly report on a student's attitudes. Therefore, the teacher will have to make a guess about the student's attitude based on her observation of the student's behaviors. Because teachers are very busy and have many students to monitor, a teacher has only limited experience in observing a student's behavior. This will increase the error in the teacher's response. Furthermore, a teacher's observations may be colored by prejudice or misunderstanding of the student, even further increasing the amount of error in response. Therefore, asking a different person to report on beliefs, attitudes, feelings, and opinions is even less valid than using behavior as a substitute for attitudes.

Equally invalid is the strategy of asking people to report on others' attitudes in general. For example, a teacher might be asked to report on whether students have a positive or negative attitude toward school. Again, teachers cannot see into the minds of students in general so a teacher's report of students' attitudes will have a considerable amount of error. Furthermore, a teacher's beliefs about students' attitudes is oftentimes overly influenced by one or two exceptional students. Perhaps there are a handful of students who have a particularly negative attitude toward school and cause serious problems. Even though a majority of the students may have positive attitudes toward school, the few students causing problems take most of the teacher's attention and energies, and therefore bias the teachers' impressions about students' attitudes toward school. Because the majority of the students are well-behaved, they do not draw the teachers' attention and therefore make less of an impression than the handful of students who cause problems. Therefore, asking others to report on attitudes in general is an extremely unreliable way to measure a belief, attitude, feeling, or opinion.

To summarize, behavior is not the same thing as a belief, attitude, feeling, or opinion. Therefore, using behavior as a measurement for a belief, attitude, feeling, or opinion is invalid. Likewise, asking one person to report on another person's a belief, attitude, feeling, or opinion is equally invalid because the person will have to make a guess based on their oftentimes inadequate observations of behavior. The problems with these forms of measurement are much greater than the limited amount of socially desirable responding that comes from self-report questionnaires. Therefore, self-report questionnaires are the preferred method of measurement when a researcher wants to assess a person's belief, attitude, feeling, or opinion (Chan, 2008).

Ways to Improve Accurate Responding to Self Report Questionnaires

Socially desirable responding is a phenomenon that researchers should be aware of when they are designing their research study. However, the fact that some participants may respond in a socially desirable fashion on self-report questionnaires does not mean that self-report should be discarded altogether. Indeed, depending on the variable that is to be measured, self-report instruments are typically the most valid form of measurement (Chan, 2008). Practical strategies that researchers can use to minimize the error that comes from socially desirable responding on self-report questionnaires are described below.

Anonymity. The best strategy for minimizing socially desirable responding is to allow the participants to complete the questionnaire anonymously, meaning that the participant does not write their name on the questionnaire. When a participant realizes that nobody will ever know their responses, then they will feel more free to be honest. This can be done by writing “Do not write your name on this questionnaire” very prominently at the top of the questionnaire. Then the directions can read, “Since your name is not written on the questionnaire, your responses can never be linked to you personally. Please answer the questions truthfully.”

Sometimes participants must write their name on the questionnaire, oftentimes so the researcher can link the responses on the questionnaire to other sources of data. For example, a researcher may need to match pre-test and post-test scores. If this is the case, the researcher must assure the participants that their responses will be kept confidential so they will be honest. For example, participants might write their name on the top of the questionnaire, then a solid line is drawn below. Then the directions may read, “Please answer the questions truthfully. When you submit the questionnaire, the top section with your name will be cut off and a code number will be assigned to your questionnaire. Then your responses to the questionnaire can never be linked to you personally.” The researcher should keep a master list of code numbers that are assigned to names so the data can be linked in the future.

Ask respondents to answer truthfully. Second, the directions can also convince the respondent of the importance of being truthful on the questionnaire. For example, “The purpose of this questionnaire is to assess students’ attitudes toward school. It is important that you answer the items truthfully so the researchers can have an accurate understanding of students’ attitudes. Your accurate responses may help teachers improve their teaching in the future.”

Avoid biasing statements. It is possible that the researcher may elicit socially desirable responding simply because they write biased items. When measuring students’ attitudes toward mathematics, an item may read, “Everybody knows that mathematics is good.” This item will bias participants’ responses because the socially desirable response is clear. However, an item that asks participants to simply report their own feelings would be less likely to receive socially desirable responding. For example, “I feel that mathematics is important.” After developing questionnaire items, the researcher should thoughtfully read each item to consider whether the item is worded in such a way that leads participants to the socially desirable response.

Test administration. Finally, how the questionnaire is completed by participants may lead to socially desirable responding. For example, I have a colleague who is an outspoken advocate on a specific issue. He wants to do research about people’s attitudes toward that issue, but if he distributes the questionnaire, then it may bias participants’ responses because they know the responses he would prefer. To try to prevent the respondents from engaging in socially desirable responding, he asked somebody else to administer and collect the questionnaire for him.

Likewise, if students are sitting very close to each other when they complete the questionnaire, they may be more likely to use socially desirable responding because their colleagues can read their answers. Therefore, the researcher needs to ensure that participants can complete the questionnaire in a private manner. Furthermore, the person who administers

the questionnaire must make a concerted effort to ensure that they appear trustworthy to the participants so they will feel confident that their responses will be kept confidential.

Conclusion

In conclusion, this paper has shown that Nigerians are generally honest when reporting their behaviors and attitudes on self-report questionnaires. Furthermore, it has been demonstrated that self-report questionnaires are typically the most valid way to measure beliefs, attitudes, feelings, and opinions. Therefore, researchers should reconsider the use of self-report questionnaires when conducting social science research. Careful thought and planning can reduce the probability of socially desirable responding on self-report questionnaires.

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